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IMPORTANCE AND SATISFACTION WITH
INSTITUTIONAL FACTORS AMONG STUDENTS IN
TECHNICAL COLLEGES IN GEORGIA

by

RICHARD A. STEPHENS

(Under the Direction of Barbara J. Mallory)

ABSTRACT

The researcher's purpose of this study was to examine the relationship of the students' identification of importance and satisfaction with institutional factors (those factors that the institutions can control) of Georgia's technical colleges and to determine the extent of the differences between importance of and satisfaction with institutional factors. For the study, two databases were analyzed that were comprised of data from Georgia's technical college students who took the Noel-Levitz Student Satisfaction Inventory questionnaire. To explain the findings from the analysis, discussion topics were derived from the themes and trends and were presented to two, five-person focus groups of students who attended a technical college in Georgia for discussion.

The researcher's findings revealed that students ranked the factors of instructional effectiveness, registration effectiveness, and academic advising/counseling as the most important factors within the institution. The researcher found that service excellence, safety and security issues, and campus support services were ranked by technical college students in Georgia as factors with which they were least satisfied.

Students reported the least differences between the importance and satisfaction of the factors in the categories of safety and security, admissions and financial aid, and registration effectiveness reflected the greatest differences. The focus group expressed discontent with safety and security and the student services department of the institutions. The students are most satisfied with the faculty of the college.

Administrators and decision makers may use the information garnered by this research to promote the areas that students feel are important and those in which students are satisfied, while focusing on correcting the items within the institution in which students are not satisfied. Policies and procedures can focus on factors that students feel are important such as instructional effectiveness, registration effectiveness, and academic advising and counseling. Coupled with this, policies should bolster factors that students are satisfied with such as institutional effectiveness, student centeredness, and concern for the individual while adding or changing policies that affect the factors that students are not satisfied; academic services, safety and security, and campus support services.

INDEX WORDS: Institutional factors, Importance, Satisfaction, Technical colleges

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INSTITUTIONAL FACTORS AMONG STUDENTS IN
TECHNICAL COLLEGES IN GEORGIA

by

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Partial Fulfillment of the Requirements for the Degree

DOCTORATE OF EDUCATION

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IMPORTANCE AND SATISFACTION WITH
INSTITUTIONAL FACTORS AMONG STUDENTS IN
TECHNICAL COLLEGES IN GEORGIA

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DEDICATION

I dedicate this dissertation to my loving and devoted wife without whom I would have never pursued the field of education or garnered the love of teaching. Without her love, encouragement, endurance, fortitude, and hand-holding, I honestly would not be in the world today. Her unwavering love has literally lifted me from the lowest of all possible lows and her steadfast love and support are the only reasons that I am able to accomplish anything.

I also dedicate this to my children, Lauren and Rachel, who gave up over 2 ½ years of their days, nights, and weekends with their dad so he could accomplish his dream. From now on, I can help them follow theirs. Throughout my life, my mom has demonstrated patience and guidance and without her love and support, I would not be the person that I am today. She has been thoughtful and understanding through the best and worst of times, always ready with words of encouragement, always listening, giving me advice, and surrounded me with unconditional love and support. My dad left this world early but he would have thought this to be an “outstanding” accomplishment. My parents-in-law who have treated me nothing short of their own son, I will be forever grateful and indebted for everything that you have done and continue to do.

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CHAPTER I

INTRODUCTION

Postsecondary institutions with the greatest educational impact are those with clear and consistent educational goals that are shared by administration, faculty, and students (Chickering & Reisser, 1993). The importance that students attach to particular goals shapes the activities in which they engage and the degree of effort they expend in those activities (Cantor, Norem, Langston, Fleeson, & Zirkel (1989). However, there is evidence of increasing differences among the educational goals of governments, administrators, faculty and students (Hanushek, 1997). The failure of undergraduate students to complete their studies is a cost to a government body which funds higher education institutions and where the government, whether state or federal, supports students through contributions to institutions in the form of tuition fees and/or maintenance. A government's concern to keep public spending as low as possible means that the obvious aspect of its economic agenda is best served by minimizing non-completion and delayed completion, as these facets may be construed as inefficiencies in the use of public finances, and hence they become political issues (Yorke, 1999).

Nadeau, Donald, and Konrad (1992) state that college administrators seek program completers, if for no other reason than boasting rights, as funding and other financial incentives are based upon enrollment; not completion. Faculty, on the other hand, may have their own goals that have remained relatively stable with highest priority given to facilitating students' intellectual development (Trice, 2002). As a third group that makes up the institution's profile, the students assert that they are increasingly interested in obtaining practical training for their future employment (Dey, Astin & Korn, 1991). If this pattern of

differing goals and objectives continues internally, the anxiety between administration, faculty and students is likely to lead to increased levels of frustration and dissatisfaction for all parties. In classroom scenarios, faculty members express dissatisfaction when they perceive that students are not committed to learning. Students find disappointment with the academic advisement they receive because it does not respond to their needs (Alexitch, 1997). It is therefore important that administrators understand the perspective of both faculty and students in order to identify potential areas of conflict that might diminish student satisfaction and also steps that should be taken to improve retention and the institutional environment.

Because different types of stakeholders in higher education--the public, employers, funding agents, administration, faculty, and students--have their own perspectives and goals, each assigns different values to quality and accountability. The public wants students to graduate with general abilities, emphasizing areas such as communication skills (Cave & Hanney, 1992). College administrators are expected to show that state and federal resources are being used efficiently and effectively for the institution, and student completion is an important criterion (Nadeau, Donald, & Konrad, 1992). Faculties view the colleges' primary obligation to students to be the development of intellectual independence (Barzun, 1993) while Dey, Astin, and Korn (1991) find that students, meanwhile, are increasingly preoccupied with career concerns and the ability to find jobs

Institutional Enrollment and Retention

Arguably, most institutional effectiveness offices at two-year colleges focus on enrollment management and related business functions of the college, rather than on measuring and analyzing factors that determine student success and satisfaction (Larose,

2003). Morest and Bailey (2005) state that two year colleges receive a portion of state funds through formulas that are based on enrollments, not retention or graduation, and efforts to tie state support to retention and graduation rates and other performance measures have not yet proved effective. From the colleges' perspective, a new student who has been heavily recruited accounts for the same amount of funding as a student who is returning well beyond an anticipated completion time.

Generally, funds are allocated from states to post-secondary institutions within the state. The amounts of the funds are calculated upon current enrollment based upon a formula of a set dollar amount multiplied by the number of students-- at times called head count (Prah, 2002). Forecasted institutional budgets are based upon current enrollment, retention rates, and recruitment efforts, which can all be linked to the institution's ability to meet the needs of students. By forecasting and maximizing retention and thus revenue, an institution may be able to strengthen its capacity for educational and administrative planning. A major reason colleges and universities feel the pain when state revenues falter is that lawmakers know that these institutions have other sources of revenue, including tuition, fees, government contracts and private contributions (Prah).

In community and technical colleges, the term "enrollment" can have a myriad of definitions. Enrollment may mean the student is interested in obtaining an associate degree, a certificate or diploma in a particular field, multiple classes for skill training or a single class for re-training or personal enjoyment. Approximately one quarter all of students in community colleges considered themselves in a vocational track while in high school (Levesque, Lauen, Teitelbaum, Alt, & Librera, 2000). These authors suggest that this fact may account for two-year college early leavers who may find viable employment while

enrolled in classes. In 2005, there were 14,354 graduates with a diploma or degree from one of Georgia's technical colleges while there were 20,272 completers of certificate programs within the colleges (DTAE, 2006).

Likewise, these varied definitions of enrollment add to the difficulty of defining college retention. Once enrolled, Zwerling (1980) states that institutional factors impact student retention in two-year colleges. He states: "two-year colleges need to shift the attention from what is wrong with the student to what is wrong with the institution (p. 56). According to Zwerling, institutional factors such as providing adequate advising, offering financial aid, sponsoring orientation, and counseling at convenient times for adult students can positively impact retention. In any definition of enrollment, the college will be funded upon headcount whether the student is new to the system or a returning scholar.

To a large extent, arguments can be made that community college administrators base curriculum decisions on perceptions of community wants and student needs, but these perceptions may vary greatly from the perceptions of the students (McGovern & Hawks, 1986). Adding to this research, Sanders and Burton (1996) assert that assessments that are performed by community colleges address outcomes of the students and do not consider the multitude of factors that affect students' perceptions. Various other researchers (Bristow, 1998; Sirvanci, 1996; Bristow, Mowen, & Krieger, 1994) note that college administrators, along with researchers, are beginning to acknowledge the need to focus student satisfaction assessments in two-year colleges with the same urgency that has been displayed at four-year colleges and universities. A great deal of research has attempted to measure the needs and expectations of college students, but a limited amount of research has focused on factors that lead to student satisfaction that may transcend into retention (Chapman & Pascarella, 1983;

Tinto,1987; Walker, 1988; Avalos, 1993; Fields, 1998; Burris-Kitchen, Der-Karabetian, & Morrow, 2000; and Dodd, Gary, & Kling, 2004).

Elliot and Shin (2002) state that many student satisfaction assessments ask an overarching question about total satisfaction of an institution or the college experience and usually report the data as basic yes or no evidence of satisfaction. The authors state that when assessing overall student/customer satisfaction, a composite satisfaction score that incorporates multiple attributes would appear to have more diagnostic value for strategic decision making (2002). Various instruments exist from several companies that institutions use to gather student perceptions on institutional satisfaction. Instruments such as Community College Student Experiences Questionnaire (CCSEQ), the Community College Survey of Student Engagement (CCSSE), the Cooperative Institutional Research Program (CIRP), and the Noel-Levitz Student satisfaction Inventory (SSI) are a few of the commercial instruments available for institutional use.

Two Year Students' Satisfaction

In Fiscal Year 2005-2006, Georgia's commissioner for the Department of Technical and Adult Education, Mike Vollmer, listed as one of the department's strategic priorities the initiative of the following:

Georgia's Technical Colleges will provide improved services to help students achieve their educational goals, overcome educational barriers, and obtain training for employment each year and will develop and implement a coordinated statewide strategy for recruiting, retaining and recognizing students and continue the strategy each year, with annual refinements, through FY2006 (DTAE, 2005).

To address the needs of overcoming educational barriers and retaining students, the commissioner asked that each of Georgia's technical colleges administer an internal survey to students that measures satisfaction (L. Roberts, personal communication, June 8, 2006). The technical colleges chose to implement the Noel-Levitz Student Satisfaction Inventory.

Noel-Levitz Student Satisfaction Inventory

The Noel-Levitz Student Satisfaction Inventory was implemented in 16 of Georgia's 34 technical colleges in 2005 (Noel-Levitz, 2006). The data was gathered from the students who responded to 70-item survey. These 70 questions are then divided into 12 subsets or "Institutional Factors", and are categorized as: Academic Advising and Counseling Effectiveness; Academic Services; Admissions and Financial Aid Effectiveness; Campus Climate; Campus Support Services; Concern for the Individual; Institutional Effectiveness; Registration Effectiveness; Response to Diverse Populations; Safety and Security, Service Excellence, and Student Centeredness.

An overview of the institutional factors measured by the NLCI provides insights into areas of the two-year institutions that may have an impact on student satisfaction.

Academic Advising and Counseling Effectiveness assesses the comprehensiveness of the institution's academic advising program. Academic advisors and counselors are evaluated on the basis of their knowledge, competence and personal concern for student success, as well as on their approachability.

Academic Services assesses services students utilize to achieve their academic goals. These services include the library, computer labs, and tutoring and study areas.

Admissions and Financial Aid Effectiveness assesses an institution's ability to enroll students in an effective manner. This scale covers issues such as competence and knowledge

of admissions counselors, as well as the effectiveness and availability of financial aid programs.

Campus Climate assesses the extent to which an institution provides experiences that promote a sense of campus pride and feelings of belonging. This scale also assesses the effectiveness of an institution's channels of communication for students.

Campus Support Services assesses the quality of the support programs and services which students utilize to make their educational experiences more meaningful and productive. This scale covers career services, orientation, child care, and special programs such as Veterans' Services and support services for displaced homemakers.

Concern for the Individual assesses an institution's commitment to treating each student as an individual. Those groups who frequently deal with students on a personal level (e.g., faculty, advisors, and counselors) are included in this assessment.

Instructional Effectiveness assesses the students' academic experience, the curriculum, and the campus's overriding commitment to academic excellence. This comprehensive scale covers areas such as the variety of courses offered, the effectiveness of the faculty in and out of the classroom, and the effectiveness of adjunct faculty and graduate teaching assistants if applicable.

Registration Effectiveness assesses issues associated with registration and billing. This scale also measures an institution's commitment to making this process as smooth and effective as possible.

Responsiveness to Diverse Populations assesses an institution's commitment to specific groups of students enrolled at an institution, e.g., under-represented populations, students with disabilities, commuters, part-time students, and older, returning learners.

Safety and Security assesses the institution's responsiveness to students' personal safety and security on your campus. This scale measures the effectiveness of both security personnel and campus facilities.

Service Excellence assesses the attitude of staff toward students, especially front-line staff—those individuals who come in contact with students and potential students first. This scale pinpoints the areas of the campus where quality service and personal concern for students are rated most and least favorably.

Student Centeredness assesses a campus's efforts to convey to students that they are important to the institution. This scale measures an institution's attitude toward students and the extent to which they feel welcome and valued. Some items on the inventory contribute to more than one scale.

Individually, each institution uses the information from the tabulated data to discern patterns or trends that may indicate where they are best serving students and where there are areas for improvement. Information from the Noel-Levitz 2006 National Report is stated as follows:

Research indicates that the greater the fit between expectations of students and reality, the greater the likelihood for persistence, student success, and stability.

The opposite effect also applies: with greater incongruence or a lack of fit come higher attrition, poor performance, and fluctuation. Understanding this fit between what students expect and what they experience is a primary benefit of a satisfaction assessment (p.3).

Thus, institutions gather and analyze data that may indicate what factors students feel are important that a college possesses and the extent that the students are satisfied with each

of the factors. Student characteristics and perceptions can change frequently, and campus leaders, stakeholders including students, parents, boards of trustees, and state legislatures and agencies may want to understand these changes in order to meet the transforming needs and circumstances of the student body.

A limited number of studies have examined student satisfaction on the community college campus and many of these previous studies incorporated the Noel-Levitz Student Satisfaction Inventory as does this study. Each of these studies provides insight into an understanding of student satisfaction using the Noel-Levitz Student Satisfaction Inventory and was performed at two-year colleges.

Student Attitudes towards Institutional Factors

Given the multitude of factors that influence students' reasoning for attending two-year colleges and attributes of the institution that affect students once they are enrolled, a primary concern of administrators is understanding institutional factors that students perceive to be important and the extent that students are satisfied with these factors. If students choose not to attend two-year colleges, then enrollment declines and attrition continues, two-year colleges that receive appropriations based upon enrollment are destined to lose state and federal funding Morest and Bailey (2005). Administrators need to be cognizant of the fact that student retention is a major factor in managing enrollment, which in turn translates into revenue planning.

Though two-year colleges may attempt to promote features that attract students to their colleges, the correlation between these factors and student needs, once enrolled, may vary. Accordingly, Bean and Bradley (1986) state that factors that influence students to enroll in a chosen institution may have no bearing upon their total satisfaction once they

begin. For example, the authors note that in a majority of studies internal to the institution, overall college student satisfaction is associated with student-faculty interaction. Umbach and Porter (2002) concur that while peer groups continue to be a primary source of student satisfaction, interactions within academic departments with selected faculty members are also significant and the strongest predictor of satisfaction is the helpful attitude of the professors.

Students attending two-year public institutions are more likely to be older, have dependents, work full-time, attend part-time, and delay enrollment than undergraduates enrolled in four-year institutions (Choy, 2002). Because these factors are much different than most people's conception of a typical college student, researchers such as Horn (1996) began labeling these students as "non-traditional". This new group of students refers to a change in the education pursuit from an educational path historically thought of as traditional, that is, participating full-time in college immediately after high school graduation. However, campus operations and resources may not be responsive to the nontraditional students. For example, classroom assignments, internship opportunities, and attendance policies often fail to take into consideration the time constraints within which nontraditional students often operate. Non-traditional students are further challenged, as they often do not possess the goal-oriented, life situation, or academic skills that are characteristic of educational persistence and success (Wright & O'Neill, 2002).

There is little consistency throughout the literature in defining a non-traditional student or elements of student's college experience. Mancuso (2001) states that most of higher education has been designed to meet the needs of traditional students, but as nontraditional students comprise more than one-half of the community college and even more of technical college population, the assessment of services, programs, and practices from a student

perspective is needed. Profiles of nontraditional students widely maintain age as a characteristic parallel with the definition of adulthood (Laanan, 2003; Metzner & Bean, 1987). Even though age and adulthood (25 years and older) have been used as dominant defining characteristics for nontraditional student status, Noel-Levitz (2004) point out the challenges and limitations in using these characteristics to distinguish one student population from the higher education student population at large.

Cross (1981) agreed that only using age as a characteristic to distinguish student populations was a problem. He identified a nontraditional student as an adult who returns to school either on a full-time or part-time basis while maintaining employment, family, and other responsibilities associated with adult life. Students, who traditionally do not qualify legally as an adult (age 18), but take on the life responsibilities generally associated with adulthood can be considered adults. The nontraditional student's primary attention is placed on employment, family, and other responsibilities. Mancuso states:

Persons who have assumed major life responsibilities and commitments such as work, family, and community activities . . . are no longer dependent upon parents or guardians . . . and whose principal identities have moved beyond the role of full-time student (2001, pp. 165-166).

Horn (1996) follows this same pattern as he attempts to define the nontraditional student. He states that nontraditional students can be characterized as students who exhibit at least one of the following situational concerns while enrolled in higher education:

1. Delays enrollment (does not enter postsecondary education in the same calendar year of high school completion);
2. Attends on a part-time basis for at least part of the academic year,

3. Works full-time (35 hours or more per week) while enrolled in college coursework;
4. Is considered financially independent for purposes of determining eligibility for financial aid;
5. Has dependents other than a spouse (usually children, but sometimes others);
6. Is a single parent (either not married or married but separated with dependents); or
7. Does not have a high school diploma (completed high school with a General Education Diploma or other high school completion certificate or did not finish high school). (Horn, pp. 2-3)

Much like Cross, Horn's model does not reference to age, but instead uses terms such as "delayed enrollment" as a nontraditional characteristic. Delayed enrollment can be viewed as similar in nature to the age or adulthood factor of other nontraditional student characteristic models. Horn's definition of the single parenthood is not the same as the dependent caregiver factor in his model as his definition of dependent caregiver is a person not living at home with their parents.

Sirvanci (1996) states that two-year college administrators, along with faculty and staff members, are focusing on factors, internal and external to the institution that affect student attitudes and how the institution plays a role in shaping items that satisfy students' desires. These, he states, are factors different than those that originally attracted students to an institution, such as availability of classes and proximity to home, and have a lesser affect in retaining the students once they begin attending. Malley (1998) is one of the few to

extensively review this area and has shown that there is a need to carry out more research into structural models which can assist in explaining the multiple facets of student satisfaction within the institution itself. While a number of studies focus (Astin, 1984; Centra & Rock, 1983; Dey, Astin, & Korn, 1991) on using external and personal factors to predict student outcomes, very little research has been done that assesses perceptions of students' attitudes of institutional factors; those that are controllable by and internal to an institution.

Statement of the Problem

The purpose of this study was to examine the relationship of the students' identification of importance and satisfaction with institutional factors of Georgia's technical colleges. To assure that a technical college education will remain attractive as a viable option for students pursuing post-secondary instruction, college administrators are cognizant and focused upon maintaining the level of enrollment within the colleges that currently exists. Administrators also continue to seek ways to enhance enrollment while retaining current students. Federal and state funding, initiatives and grants are dependent upon the overall enrollment status of the two-year college. As a practical choice of post-secondary education, two-year college administrators must continually address enrollment concerns as the colleges receive a portion of state funds through formulas that are based on enrollments. In addition to enrollment, researchers state that colleges also focus upon student attitudes, satisfaction, and persistence.

Many studies have been conducted that determine factors influencing student's decisions to choose two-year education, student satisfaction and attitudes, and student retention. But, there have been very few studies that examine the relationships of student satisfaction and attitudes and the importance of institutional factors within the two-year

colleges. In the past, researchers who have focused upon student attrition and retention have considered variables that are external to the institution, such as demographic factors, socioeconomic variables, and other areas that pertain to the individual student. Other researchers have examined the effects of several aspects of the college environment, such as instructional activities and out-of-class experiences, on students' academic outcomes and determined these as factors that divert student effort from academic involvement and tend to be related to higher rates of school withdrawal. Conversely, there are specific activities that are positively related to student achievement, satisfaction and retention in college.

Several studies focused upon student satisfaction in traditional four-year colleges and universities, but the researcher found very few or dated studies that focus on two-year institutions, especially technical colleges. Since up-to-date studies on two-year colleges similar to studies of four-year institutions was not to be found, nor a study that focused on technical colleges while encompassing factors that are internal to an institution, this study attempts to fill that void. This study contributed to the literature as it relates to technical colleges, nontraditional students, and student satisfaction research. The researcher examined the level of importance and satisfaction of students with institutional factors within technical colleges of Georgia.

Research Questions

What is the extent of the differences between importance of and satisfaction with institutional factors within Georgia's technical colleges according to students?

1. To what extent is each of the twelve institutional factors important to students?
2. To what extent are students satisfied with each of the twelve institutional factors?

3. To what extent do satisfaction and importance differ with the twelve institutional factors?
4. To what extent to importance and satisfaction vary by different characteristics of non-traditional students?
5. How do students with different backgrounds explain importance and satisfaction concerning the institutional factors?

Significance of the Study

This study added to the body of knowledge about student recruitment, satisfaction, and retention within two-year colleges and particularly Georgia's technical colleges. One of the goals of the study was to inform Georgia's technical college administrators of the levels of satisfaction with factors that can be controlled by the institution—institutional factors—that may assist with student retention within their institutions. Because student completion rates are also determinants in local and regional accreditation criteria, the information may assist administrators in developing policies and goals that assist technical colleges in meeting established benchmarks of completion.

By utilizing the information herein, administrators may have up-to-date data of students' perceptions thus allowing for policy changes that strengthen bonds that students' have with the college thus promoting retention. Administrators may form policies that reward faculty for student advising, as students find faculty very beneficial. Administrators may also form policies that guide counselors and financial aid administrators to develop relationships, as well as resources to assist students as these relationships are currently challenged.

Retention strategies focus on students' long term benefits for remaining in college and goal attainment while addressing the institution's varied needs for sustained and increased

enrollment, retention, and completion. Though only 16 of the 34 institutions participated in the study, the intent was to provide guidelines and procedures that may be generalized to all of Georgia's technical colleges and can provide useful information in combating low satisfaction rates.

This stated, two-year college student satisfaction and retention instruments cannot focus on the same general factors as those used to measure four-year college and university students. This ambiguity, coupled with the recent emphasis on student commitment and retention by accrediting agencies, results in greater attention to policies and practices that improve student retention in two-year colleges. Researchers document that student attitudes are shaped more from variables that directly affect the individual student and subsequent experiences and not the overall physical characteristics of the institution, its lore, or saga, factors that may have been an initial attraction. Hence, the need is to change the procedures and possibly focus more research on factors that influence students to choose a two-year college, attributes that students feel are important and are satisfied with, and retention factors that compose the students' perspectives of the college experience.

Often referred to as "relationship marketing," the foundation of this business philosophy is the belief that strengthening ties with existing customers heightens customer satisfaction and retention and business' ability to serve customers--thereby avoiding the high costs both parties may otherwise experience in the search for new clients and customers. Personally, the researcher has worked in the corporate business world and owned a small business and understands first hand the importance of customer relations and service after the initial sale. The researcher has observed that colleges, much like businesses, spend time, effort and money recruiting new students while focusing minimal time and effort on retaining

current students. The researcher aims to link the business philosophy of customer satisfaction and preservation and the educational tenet of student retention, while proposing a listing of institutional factors that students feel are important along with the factors that students are satisfied with and those in which that are not.

Procedures

In the past, studies concerning student satisfaction within higher education as a whole had been conducted using both quantitative and qualitative nature. Furthermore, more specific studies have been performed and information ascertained from researchers that outlined and described the multiple facets that attract students to two-year colleges, factors that affect student satisfaction and issues that promote retention. This researcher used a mixed methodology that ascertained the extent of the differences between students' perceived importance of and satisfaction with institutional factors within Georgia's technical colleges.

A portion of the study is quantitative in design. Quantitative research is based primarily on deductive forms of logic, and theories and hypotheses are tested in a cause-effect order. The goal is to develop generalizations that contribute to theory that enable the researcher to predict, explain, and understand some phenomenon. The causal direction in a theory, or which variable is independent and which is dependent, is completely a theoretical and conceptual problem. The quantitative techniques cannot answer the question of what is causing what (Dobbin, & Gatowski, 1999). Because of this fact, a qualitative approach will also be used in an attempt to further understand students' levels of satisfaction with the areas individual factors that are controlled by an institution.

A quantitative method that focuses on secondary data was chosen for this research as the purposes of quantitative analysis is that of theory testing, prediction, and establishing facts. The research focus uses surveys and formal instruments such as the Noel-Levitz Student Satisfaction Inventory (SSI) while isolating variables and using large samples. From the research, the data will then be presented as it was analyzed using mainly statistical, quantitative measures and by the Noel-Levitz company.

To add to the quantitative data available, the researcher conducted two focus-group discussions. In doing so, the researcher interacted with participants and collected data face-to-face from participants. These groups were comprised of students who took the Noel-Levitz Student Satisfaction Inventory (SSI) in 2005 at a technical college in Georgia. These focus groups were also comprised of non-traditional students.

Data Collection

General data was obtained from the Noel-Levitz website which is publicly available and includes an overall assessment of students who participated in the general Student Satisfaction Inventory in 2005. The 2005 National Satisfaction and Priorities report presents the responses to the Noel-Levitz Student Satisfaction Inventory (SSI) of more than 675,000 students from more than 860 four-year and two-year, public, and private institutions across North America. From this total, approximately 125,000 of these students were from community, junior, and technical colleges. From this general data, institutions may request different subsets of information to be tabulated for their personal benefit as long as the institution has previously participated in an assessment. The researcher made such requests.

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The focus group portion was in a discussion format. This format is an important part of any action research project as it provides the opportunity for the researcher to investigate further, to solve problems and to gather data which could not have been obtained in other ways (Cunningham, 1993, p.93). For a focus-group study, Stewart and Shamdasani suggest that convenience sampling can be employed, that is, the group must consist of representative members of the larger population (1990, p.53) and this was done.

Instrument

The Student Satisfaction Inventory (SSI) instrument measures student satisfaction and priorities, showing how satisfied students are as well as what issues are important to them. The data from the instrument is gathered from the students using an instrument that employs 70 permanent questions and 15 questions that can be personalized by individual institutions. Only the 70 questions will be used for this study. These questions are then divided into 12 factors: Academic Advising Effectiveness, Campus Climate, Campus Support Services, Concern for the Individual, Instructional Effectiveness, Admissions and Financial Aid Effectiveness, Registration Effectiveness, Responsiveness to Diverse Populations, Safety and Security, Service Excellence, Student Centeredness, and Academic Services.

The Student Satisfaction Inventory (SSI) was used for this study because it offers the added benefit of measuring students' sense of importance (expectations) of campus environmental factors as well as their satisfaction of experience with these factors (Noel-

Levitz, 2006). Comparing the students' ratings of the importance (expectations) and their satisfaction identifies "performance gaps" for each standardized item and eleven scales of the *Inventory*. Normative data from two-year public institutions including community and technical colleges from throughout the United States about the importance, satisfaction, and performance gaps for the standardized items and eleven scales are also provided.

The second portion of the instrument used was in the form of discussion topics that were derived from the tabular data that was generated from research questions 1, 2, 3, and 4. "Questions that include words such as how, why, under what conditions, and similar probes suggest to respondents that the researcher is interested in complexity and facilitating discussion" (Stewart & Shamdasani, 1990, p.65). Eight topics were formed from the data analysis from research questions 1-4 and presented to each of the focus groups. The topics for the discussion were derived from the variables that the overall population felt was most important but were least satisfied.

Data Analysis

Resulting data for this research study that has been tabulated by Noel-Levitz and descriptive statistics was used in response to research questions 1, 2 and 3: To what extent is each of the twelve institutional factors important to students? To what extent are students satisfied with each of the twelve institutional factors? What is the extent of the differences in the importance of and satisfaction with institutional factors? The focus groups were used to address these concerns and add meaning to the quantitative measures.

Research question 4 attempted to determine the attitudes of the demographically different students and was measured in the same general manner as questions 1-3 with the addition of a qualitative component consisting of two separate focus groups. This attempt

was to gain a deeper insight to perceptions identified in the survey. These groups were comprised of students who represent the demographic profiles of nontraditional students.

An additional dimension was added for question 5 that involved focus groups which allowed the information collected from these group discussions to be raw data. The researcher's first step was to transcribe the entire interview and this provided a complete record of the discussion and facilitated analysis of the data. The next step was to analyze the content of the discussion with the aim of this analysis was to look for trends and patterns that reappear within the focus groups.

The guided discussion for these groups was based upon questions derived from the tabular data gathered in research questions 1-4. This data was transcribed, analyzed, evaluated for emerging trends and then integrated into the quantitative data that was used to develop theories and to uncover deeper understanding of the reasons that students possess different levels of satisfaction within the institutions.

Limitations

The research was performed in Georgia. Another limitation is that by using a secondary data source, controlling for the factor of students transferring from one institution to another was not addressed meaning a student may be satisfied with factors at one institution but not another. The Noel Levitz instrument, though comprised of 12 subsections, did not employ a uniform number of questions in the instrument for each subsection. The researcher worked primarily with secondary data that was derived by the Noel-Levitz company that can not be manipulated. The basic Noel Levitz instrument data analysis that is available for public perusal does not compile demographic information other than listing the

number and categories of persons who took the survey. But, the researcher was able to have certain demographic items analyzed from the data set for a cost and for proprietary use.

Delimitations

A delimiting factor in this study concerns the population surveyed. The population included 13,782 students from 16 institutions in 2005, a sufficient sample. However, there are 34 technical colleges in Georgia, but only 16 participated in the survey in 2005. In FY 2004, there were 151,535 students enrolled in certificate, diploma and associate degree classes and 13,782 students completed the survey. The data from FY 2005 was selected for use in this study. Data from all other years were not used for comparison or any other factor.

The Noel-Levitz survey that was used was completed by students that physically attended a college; not those who may take classes on-line. Also, the researcher chose to use the results from a single student satisfaction assessment tool, while many others are available. While this assessment may be somewhat representative of other nationally administered assessments, certain factors may be specific to this assessment in terms of its image, focus of questions, length, and criteria that would not be representative of other assessments.

Third, is a major consideration in dealing with items that attempt to measure levels of student satisfaction factors is the determination of students' personal definition and perception of the meaning of the word "satisfaction". In this research, low levels of satisfaction do not mean the student is dissatisfied. The model does not involve retention or suggest prescriptive methods per se of what institutions can or should do with the information provided but describes the factors that have been established that may lead to attrition.

Fourth, the researcher chose to do focus group discussion instead of other data gathering methods and the researcher chose two, 5 member groups instead of other group sizes, based upon suggestions of researchers Krueger, Stewart, Shamdasani.

Summary

Federal and state governments, accrediting agencies, and local stakeholders are increasing demanding accountability and prudence in the use of tax payer and private funding by post-secondary educational institutions. These authoritative bodies are changing their institutional accountability programs to include a linkage between funding and performance. Many of the defining measures of accountability by the various groups focus upon student completion and graduation rates from these institutions. These measures may pose significant risks to community and technical colleges because performance may have consequences for a college's budget. These circumstances require that Georgia's technical colleges take a proactive role in managing their accountability environment and in particular, determine institutional factors that may lead to student attrition and non-completion of their objectives.

Researchers who have been focusing on student attrition for past two decades have primarily concentrated on 4-year colleges and universities and their studies have qualified many reasons that students leave college before the completion of their original objectives. Socio-economic factors, parental influence, proximity of friends/family/and current work, familial status, age and other factors have depicted in detail by these researchers but conclusions based upon 4-year college and university findings can not be assumed reliable when considering 2-year community and technical colleges. Also, these factors are beyond the control of the institution. Factors such as availability of financial aid, concern for the

student, campus climate, campus support services, and other institutional factors that may lead to student attrition can be controlled by the local institution, and administrators must be cognizant of them in order to maintain high enrollment rates.

This study (a) explored institutional factors that students feel are important at Georgia's technical colleges, (b) examined factors that influence student satisfaction, (c) investigated the gaps between factors of importance and satisfaction and (d) examined how such factors as being a non-traditional student can influence students' goal attainment.

This work consists of five chapters: An introduction, a review of the literature, the methodology, the data presentation, and the findings. Chapter I explains the importance of student satisfaction with institutional (internal) factors in Georgia's technical colleges. Chapter I also include a discussion of the perspectives that institutions have concerning student satisfaction and retention needs. Chapter Two is a review of the works various authors and their work concerning factors that attract students to community colleges, factors that influence student satisfaction and the importance of student retention measures are also incorporated into this chapter. In Chapter Three, the researcher describes the theoretical framework and the method of inquiry for this research. An outline of the method used for participant selection, a profile of each student included in the study, and an explanation the types of data that was collected are also in Chapter III. Chapter Four includes the data collected from Noel-Levitz Student Survey Inventory, an individual analysis of differing factors, and a compilation of the findings. In Chapter V, the researcher discusses the findings uncovered in this research.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

All too often, post-secondary education accrediting agencies and state accountability polices require institutions to report data that are never used to guide decisions at the institutional level, and the value of the data is more symbolic than useful. By means of this data, programs are evaluated, strategic plans are made, and administrators take the glory or look for someone to blame. To combat this inconsequential data, Bailey and Alfonso state that data-based decisions must be formed from inquiry of evidence (2004). These researchers observed that data require analysis to convey meaning, but for data collection to possess meaning, the data—and the collection methods— must be subjective, open to interpretation, and promote conversation.

Through the use of performance indicators, state-mandated accountability systems emphasize performance benchmarking (Barak & Hativa, 2001). Nationally, the most common indicators for student success for community colleges have been retention, transfer, graduation, and placement rates (Burke & Serban, 1998). Barak and Hativa also state that during the past twenty years, states have been attempting to create funding systems that will prompt improved institutional performance. Particularly during the most recent budget crisis, states have cancelled or suspended performance initiatives tied to budgeting or funding, while others have put such plans on hold.

Survey results indicate that the perceived impact of these programs on performance has declined and is frequently rated as minimal or moderate. Currently, 46 states required performance reporting, but Burke (1996) notes that most of these reports for planning,

policy-making, or decision making were only modestly used. Others describe reporting practices as "symbolic policies, which appear to address problems while having little substantive effect" (Burke & Serban, 1998, p. 14). Often, accountability policies may require institutions to report data that is never actually used to guide decisions at the state level and these efforts are often symbolic instead of practical.

As stated by Alford (1998), evidence never carries its own explanation and decisions must be based on data, not intuition. Mallory (2002) suggests that data collection and data analysis have become essential for monitoring student performance. Two-year colleges must continuously improve and a viable method for improving may involve replicating the best practices of others couple with implementing constructive findings of previous research (Hurley, 2002). This study is based on the belief that data collection and data analysis is a driving force in monitoring predictors that influence student satisfaction and attrition and therefore goal attainment.

Background of the Study

History of Two-Year Post Secondary Institutions

Congress passed the First Morrill Act in 1862, which gave every state that remained in the Union a grant of 30,000 acres of public land for every member of its congressional delegation based on the 1860 census (Cross, 1999). The states were to sell this land and use the proceeds to establish colleges that would educate people in agriculture, home economics and mechanical arts, and other related professions.

In 1892, president William Rainey Harper of the University of Chicago was the first to pursue a plan to differentiate universities into smaller learning communities (Baker, Dudziak, and Tyler, 1994). He separated instruction at the University of Chicago into two

divisions, the Junior College for freshmen and sophomores and the Senior College for juniors and seniors. In 1900, the university granted an associate's degree, a mainstay of current community colleges, to students who completed work at the Junior College, which in 1901 became Joliet Junior College (Vaughn, 1995).

As the junior college movement grew, the institutional leaders did not favor an exclusively vocational curriculum. Rather, they believed that general education courses should be a part of the vocational tracks and that preparatory, or transfer, curricula should be an option in all colleges (Baker, Dudziak, & Tyler, 1994). The reforms they advocated were designed to bring about a change in emphasis, not a complete change in the mission of educational institutions. However, this change in emphasis was to be far-reaching: most administrators of the time believed that between two-thirds and three-quarters of junior college students should properly be enrolled in terminal occupational training programs and did not need a four-year degree (Baker, Dudziak, & Tyler).

The Smith-Hughes Act, also known as the Vocational Act of 1917, represented the first national approval of vocational education in the public school and it established vocational education in the areas of agriculture, trades and industry, and home economics (AACC, 2006). The Smith-Hughes Act created a Federal Board of Vocational Education to establish and oversee the operation of vocational education (Scott & Sarkees-Wircenski, 1996). In addition, the act mandated the creation of state boards to work in cooperation with the Federal Board of Vocational Education. States were required to submit plans for vocational programs to be offered and for teacher training in specific vocational areas.

Small-town local schools emerged in an effort to train students in vocational and technical skills. Schaeffer-Hink and Brandell (2000) state that a significant factor in this

development was the President's Commission on Higher Education (The Truman Commission), which gave way to the beginnings of educational services directed at the local communities and states:

Hence the President's Commission suggests the name "community college" to be applied to the institution designed to serve chiefly local community educational needs. It may have various forms of organization and may have curricula of various lengths. Its dominant feature is its intimate relations to the life of the community it serves (President's Commission 1947, Vol. 3, 5).

During and shortly after World War II, and as an alternative to junior colleges, vocational schools began as a location where students could learn trades such as welding, machine tooling or auto mechanics, with less emphasis placed on the academic aspects of the curriculum (Ayers, 2002). In 1944, the passage of the Servicemen's Readjustment Act (Public Law 78-346,) known as the GI Bill, provided assistance for the education of veterans.

The 1984 and subsequent 1990 Carl D. Perkins Vocational and Applied Technology Education Act authorized the largest amount of federal funds ever allocated for vocational education (AACC, 2006). This act was to assist states and local systems in teaching the skills necessary to work in a technologically advanced society. Another goal was to provide greater opportunities to disadvantaged individuals. The act provided funds to develop Tech Prep programs as well as allotted greater flexibility to state and local agencies on how to best use funds to serve special populations. The Tech Prep programs are structured articulation and coordination efforts between secondary and postsecondary education institutions designed to provide vocational students with a two-year high school program that is academically

challenging followed by a non-duplicative and sequenced two-year postsecondary vocational program (Lewis, 1997).

Educational dissention was highlighted in 1983 with the publishing of the report, *A Nation at Risk*. The report targeted the educational strife at all levels and was basis for many institutions' restructuring their missions. Two-year colleges transformed from being traditional feeder institutions for 4-year colleges and universities to community and vocational institutions that offered terminal degrees, diplomas, and certificates. Gray (1989) states that "the 1990s brought enrollment resurgence thanks to the proliferation of technical careers and growing partnerships between businesses and schools" (p. 2). Gray asserts that these partnerships, supported by School-to-Work, Goals 2000, and Perkins II initiatives, assisted in validating the role of secondary career and technical education and emphasized its need to work in existence with all post-secondary academic pursuits.

President George W. Bush's FY06 budget request proposed elimination of the current Perkins structure. Despite the President's opposition to Perkins, Congress completed the reauthorization process (Carnevale, Johnson, & Edwards, 1998). Today, community colleges serve over 11 million students annually while offering a wide range of programs and services, from two-year associate degrees to transfer programs with four-year institutions to job training and retraining (AACC, 2006). The vocational name has slowly shifted to encompass a technical background, versus a solely vocational base. According to the AACC, the student base of the technical college tends to be older in age than the junior or community college.

Countering these advances, today's community colleges face a number of challenges, including students who come from high school lacking academic preparedness. Two-year

colleges also face low rates of program completion and accountability requirements from federal, state, and local constituencies. In the future, two-year colleges will be vital partners with states, local school systems, and local employers in building a rigorous lifelong learning system that works for both students and local economies (OVAE, 2006).

Data on the Office of Adult and Vocational Education (OVAE, 2006) website documents that community college enrollment continued to increase but did so at a decreasing rate in the latter part of the 1990s with enrollment growing only 23 percent between 1980 and 1999. Hoachlander, Sikora, and Horn (2003) found that the total enrollments were about 5.3 million in 1999 and in the 2000-01 academic years, there were 1,076 community colleges.

Funding

Two-year colleges acquire a major percentage of their revenues from tuition, fees, government appropriations, gifts, and endowments. The actual dollar amount from each source can vary from year to year, thus requiring college administrators to be cognizant of changes in the availability of funds. The availability of these resources affects decisions about rates for tuition and fees and, in turn, may affect students' ability to pay for their education by securing loans or other means of financing. For example, Harvey, Williams, Kirshstein, O'Malley, and Wellman (1998) reported that for public two-year colleges, "...total costs per student increased by 52 percent between 1987 and 1996, from an average of \$5,197 to \$7,916. Carnevale, Johnson, & Edwards (1998) assert that " in recent years, at least partly because of competing demands on state resources, politicians' desire for broad public access to college has been overtaken by their desire to make institutions more accountable to the citizens who pay to support them" (p. 1). Zarkesh and Beas (2004) assert,

Another drawback of the drive towards accountability is that with so much attention given to indicators that can be easily measured (e.g., number of students who enroll, transfer, or graduate), other information that might be more difficult to measure (e.g., student learning) is ignored. If colleges are simply rewarded based on how many students they graduate, will their incentive to create programs that enhance teaching and student learning be reduced? Although community colleges have historically focused on teaching and learning, new measures of performance do not spotlight these two values (p.72).

Since funding and appropriations are largely based upon head count, policymakers and administrators understanding of the conditions and factors that affect student satisfaction and retention helps ensure institutional effectiveness while lowering attrition. For faculty and staff, understanding factors or conditions that influence students' dropouts or stopouts assists in promoting personal interactions that may influence students' decisions. For students, understanding these factors or conditions may help them to recognize the patterns and developing strategies to meet the challenges facing them and maximize the potential for reaching their learning goals. Lau (2004) asserts: “students who are satisfied with the formal and informal academic and social systems in a college or university tend to stay in school. To the contrary, students who have negative interactions and experiences tend to become disillusioned with college, withdraw from their peers and faculty members, and ultimately, the institution,” (p.126).

Accreditation

In the United States, post-secondary education facilities are not required to be accredited by any national organization to offer classes and confer degrees. Many colleges do choose an accreditation route (or many routes) to ensure students, taxpayers, governments and other stakeholders a level of confidence by meeting minimum requirements of the accrediting agency. There are many agencies within the United States that certify that entire institutions or smaller divisions of an institution meet the requirements. As an example, a technical college may wish to be accredited by the Commission on Occupational Education (COE) and a more traditional, academically based two-year college may elect a Commission on Colleges (COC) endorsement. Or, an institution may choose both or additional recognitions such as those by engineering agencies or those that target a particular college, such as a college of education, within a university. Individual institutions must perform self-studies to assess their effectiveness using criteria set forth by an accrediting body (COC, 2006). A portion of the self-assessment is based on information about the students' graduation rates from particular programs as well as overall graduation from the institution.

Institutions ranging from small technical institutes to research and medical universities may choose an accreditation route but no matter the agency, the criterion remains the same. A key facet is that the institution provides data that confirm the effectiveness in specific areas, such as applicability of curriculum, innovation of teaching, advising, grading and orientation of students, and completion rates (2001 Institutional Self-Study & 2001 ID Graduate Programs Report for Self-Study). Such data is collected about an institution and its students from the students themselves, faculty, administration, advisory boards and other affiliated groups. Providing data for these purposes is but one reason for institutions to

monitor students as they progress through their educational quests from pre-admission to goal attainment. Monitoring may include factors that persuaded students to choose a two-year college education, factors that influence their satisfaction while enrolled, and factors that inspire their persistence.

Enrollment

Postsecondary education enrollment has continuously risen during the past twenty-five years, but the proportion of college students completing degrees of any kind has remained static (AACC, 2006.) An important issue is whether students complete their programs and receive their degrees or certificates, complete an objective without any external credentials, or simply do not complete. Gladieux and Swail (2000) assert that some students fall short of obtaining degrees, yet go on to productive careers, but they also point out that our economy and labor market relies heavily on credentials. Boone (1998) states that community colleges have a long tradition of serving as the "people's colleges". Some community and technical colleges have an open enrollment policy (AACC, 2006) that allows students to attend the institution without stringent pre-enrollment criteria such as SAT scores or class ranking. In this sense, community colleges act as a leveling device that allow people, regardless of class, race, or even of prior academic performance, the means to attend college to earn a certificate, diploma or degree.

Purpose of Community Colleges

Cohen and Brawer (1996) contend that community colleges exist for the sole purpose of helping people get an education and that faculty is hired for the sole purpose of teaching whoever takes a seat in the classroom. Community colleges are expected either to provide vocational training or to prepare students for a four-year university, and state education

officials assess the performance of these colleges either by job-placement statistics or by acceptance rates at four-year schools (Boone, 1998). Boone concludes that, quite often, completion rate statistics are not kept as enthusiastically, as they are not necessarily detrimental to funding. Funding is derived from head count, and whether a student is new to college, a transfer, or has been at the institution for numerous courses is incidental.

Accountability

Two-year college administrators have resisted using graduation rates as benchmarks, especially in the realm of accountability, and they do so stating three main concerns. Bailey and Kienzl (2006) report that administrators feel that graduation rates are baseless, as some students enroll with a goal of nothing more than learning some specific skills. Secondly, many factors that impede students' graduation are beyond the control of the college such as family and work responsibilities or academic preparation that may be lagging. Last, the authors argue that students are increasingly attending several colleges, some simultaneously, before completing their degrees. In doing so, the student may complete their personal goal, but the institution that the student did not attend last will consider the student as a leaver or a non-completer. Morest and Bailey (2005) state:

From the colleges' point of view, in most cases a newly recruited student and a retained student yield the same revenue and focusing on student outcomes also entails political and public-relations risks. By traditional measures of performance, community colleges often appear unsuccessful to policy makers and the general public, particularly when assumptions about student performance are based on the outcomes at selective, four- year institutions (p. B.21).

Community College Governance

In the state of Georgia, there are 14 community colleges and 34 public four-year institutions governed by the University System of Georgia. In addition, there are 34 technical colleges governed by a different state agency, the Georgia Department of Technical and Adult Education (GDTAE). In some states, postsecondary entities are combined and governed by a single agency, while in other states two agencies govern. Georgia's technical colleges offer associate degrees, diplomas, technical certificates, and individual non-credit classes (GDTAE, 2006).

In combining technical colleges with traditional liberal arts institutions, South Carolina offers a range of services associated with community and technical colleges that are available in every region of the state (South Carolina Commission on Higher Education, 2006). The availability of such services adds to the capacity of the state to increase high school completion, postsecondary education participation, and develop an increasingly technically competent workforce.

As posted on the Tennessee Board of Regents site (2006), Tennessee has a State University and Community College System composed of a statewide system of area vocational-technical schools and regional technical colleges. This system includes the area vocational schools and other community colleges, technical institutes, and area vocational-technical schools.

Florida, according to the Florida Department of Education website (2006), has 28 locally-governed public community colleges in the Florida Community College System (FLCCS). While governed by local boards of trustees, the colleges are coordinated under the

jurisdiction of the Florida Board of Education in conjunction with Florida's K-20 Education System.

The Alabama College System website (2006) describes a unified system comprised of academic college education, technical education, customized business and industry training, workforce development, and adult education. The Alabama College System consists of 21 community colleges, five technical colleges, one senior institution and a statewide industrial training institute (website).

North Carolina has the State Board of Community Colleges which has governance of 58 community colleges and one technology center (NCSBCC, 2006). Prior to 1981, the Community College System was governed by the State Board of Education. This current agency is outside of the realm of North Carolina's University system which is a multi-campus university composed of 16 constituent institutions. The university system consists of each public educational institution that grants baccalaureate degrees in the state of North Carolina.

Because of the myriad of governing structures within the community colleges of the Southeast, the transferability of programs and credits between the states and the institutions becomes cumbersome. Some of the institutions follow a quarter-system of course scheduling while others use a semester system; each with their own credit-hour formula (NCSBCC, 2006; FLCCS; & TBOR, 2006). Some institutions belong to an occupational accrediting body, some to a more academic group and some belong to both types. One entity that does remain constant through out each of the systems is the student.

Governance of Technical Colleges in Georgia

Information on Georgia's Department of Technical and Adult Education (GDTAE, 2006) website states that in 1943, the Georgia's Vocational Education department succeeded in getting the State Board of Education to approve a plan for a system of area trade schools and by 1944 the first school opened in Clarkesville—North Georgia Trade and Vocational School. Four years later, a second school opened in Americus: South Georgia Trade and Vocational School.

In 1958, the department of Trade and Industrial Education of Georgia succeeded in having the State Board of Education approve a set of policies for establishing what would be called Area Vocational–Technical Schools. By the late 1960s, thousands of Georgians were enrolling in the 19 schools that had opened in Georgia during that decade (GDTAE, 2006). In 1984, Georgia's governor Joe Frank Harris created the State Board of Postsecondary Vocational Education, which ultimately led to the creation of the Department of Technical and Adult Education in 1985. GDTAE has since governed vocational education through technical colleges and associations with Board of Regents' university technical divisions (GDTAE).

During this time, Georgia built a statewide network for technical education, including a system of 34 technical colleges, 31 branch campuses and 4 joint college technical divisions. Each technical school accepts financial aid from various sources, including Georgia's lottery funded HOPE Scholarship Program (GDTAE, 2006). The Georgia HOPE Scholarship Program (Helping Outstanding Pupils Educationally) is a program to reward students who have earned good grades by helping with the expense of continuing their education after they graduate from high school (GDTAE, 2006). HOPE may be used at public technical colleges

and eligible public or private colleges and universities in Georgia. Georgia residents who are attending a Georgia public technical college to earn a certificate or diploma are eligible for a HOPE Grant, regardless of high school graduation date or grade average. Technical colleges do not require a student to be enrolled full-time, but one must make satisfactory academic progress to maintain eligibility. Technical colleges consider satisfactory academic progress, or passing, to be grades 60% or greater of the total available for a subject.

By the year 2000, more than one billion dollars had been invested in modernizing the technical college system (GDTAE, 2006). That same year legislation allowed the technical institutes to change their names to technical colleges and provided a funding formula that would accommodate the possible growth in enrollment. The legislation also expanded Georgia's HOPE scholarship program, making financial aid more available to all technical college students. Technical colleges in Georgia continue to maintain their focus on preparation of students for work and careers, while promoting the creation of seamless programs that promote and provide for the upward mobility and flexibility of Georgia's high school and post-secondary technical students (GDTAE, 2006).

As an initiative of the Georgia Department of Technical and Adult Education, the Georgia Virtual Technical College (GVTC) went online in the fall of 1998 to provide access to high-quality technical programs and services over the Internet (GVTC, 2006). Over 40,000 students have taken courses through GVTC, which includes 24-hour access and over 750 course offerings (GVTC, 2006) while within the past 10 years, enrollment in Georgia's technical colleges has doubled from 69,327 in 1995 to 142,074 in 2005 (GDTAE). Today, Georgia's technical colleges have aligned themselves along the tenets of Total Quality

Management and focus their mission on three defining principles; customer focus, partnerships with business and industry, and a commitment to quality (GDTAE, 2006).

Mission of Two-Year Colleges in the 21st Century

Berkner, Horn, and Clune (2000) document that the Nationwide Commission on the Future of Community Colleges recommends that two-year institutions take the lead in local communities by partnering with local employers and making their institutions available for workforce training. Two-year colleges provide occupational training programs and award certificates, diplomas and associate degrees. Many two-year colleges offer learning support services, such as remedial studies for students lacking minimum requirements to enroll in credit classes, and customized courses designed to meet the needs of local businesses and industries. In doing so, the colleges tailor courses for specific industries and have the training available at the institution or, possibly more applicable, onsite at the business' location.

Local communities depend upon community and technical colleges to provide courses that prepare students for occupational licensure, certification exams and continuing education classes. These state licensure areas include nursing, cosmetology, heating and air conditioning, mortuary science, auctioneering and others. Hoachlander, Sikora, and Horn (2003) state that many businesses rely on locally trained workers to fill their employment needs in areas ranging from auto mechanics to paralegals to accounting technicians.

Customized training is twofold. First, it is used to entice new businesses into an area, and secondly, customization allows efforts to be made that retain existing businesses, thereby aiding local economic development. Dolan (2005) states: "Still another strong point for community colleges in contrast to four-year schools is that the latter tend to take the students away from the community and prepare them for a position anywhere in the country, whereas

community colleges are very innovative, flexible, and nimble in responding quickly to the needs of the businesses in the community that are hiring people" (p. 52).

Quite often, the small local businesses are unable to provide the extent of formalized training or lack the equipment, machines, or subject-matter experts to provide extensive and in-depth training on their own. Partnering between businesses and two-year colleges produces many opportunities for the local communities. These partnerships allow community and technical colleges to develop specific programs and career fields while offering a support system for the business or industry involved. Additionally, they provide workforce training for the local community while offering classes that allow high school students to complete as part of a dual-enrollment agreement between the high school and the two-year institution. The courses can also entice high school students towards careers in the local community and enable companies to initiate possible future employment relationships with high school students. By forming partnerships with businesses and high schools, many two-year colleges have molded themselves into more inclusive educational facilities that can accommodate the workforce needs of the local area.

Profiles of Enrollees

Berkner, Horn, and Clune (2000) report two-year college statistics from the U.S Department of Education, National Center for Education Statistics in various categories. These include items such as short-term certificates, or those that require less than one year to complete. From academic year 1989-1990 to academic year 1999-2000, the number of students completing short-term certificates at two-year institutions rose from 46,447 to 85,941 – an increase of 85 percent. Short-term certificate programs allow students to train quickly to enter the workforce or to pursue career advancement. Longer-term certificates are

those that take at least one year but less than four years to complete. Berkner, Horn, and Clune (2000) state that as awards of short-term certificates grew significantly between the years of 1989-1990 and 1999-2000, the number of longer-term certificates awarded also increased, but at a more modest pace of 22 percent, from 78,327 to 95,463.

Berkner, Horn, and Clune (2000) report a number of statistics concerning two-year colleges. Part-time versus full-time attendance, as well as age categories, fluctuated from 1970 to 1999, and the percentage of all students attending community college part-time rose from 49 percent to 64 percent. Part-time enrollments in community college rose from about 1.1 million in 1970 to more than 3.4 million in 1999, an increase of more than 200 percent. The growth in full-time enrollment over the same period was not as dramatic, from more than 1.1 million in 1970 to more than 1.9 million in 1999, an increase of over 70 percent.

Part-time students at community colleges are typically older than their full-time counterparts. Community colleges have attempted to accommodate the needs of older, part-time students who work full time by offering courses at night and on weekends. In recent years, however, a new trend in the enrollment of students of traditional college age has emerged. Berkner, Horn, and Clune (2000) report that both part-time and full-time community college students aged 18 to 21; have increased their share of total enrollments between 1993 and 1999. Among full timers, students aged 18 to 21 increased their share from 56 percent to 61 percent of the total. Among part timers, the share of 18- to 21-year-olds rose from 20 percent to 23 percent.

Non-Traditional Students

Levine, (1993) states that during the 1980s, a new type of college student emerged in the United States. These students began to migrate into the traditional colleges and

universities but became most prevalent in the community college, junior college, and technical institutes throughout the country. Until this time, most first time students came college immediately after high school graduation as full time students. Some had jobs but they were predominantly part time jobs and many were on the college campus. But, this new generation of student began to migrate into the community colleges who were older, married, had children, and worked full time. This group was given the label of *non-traditional*, which refers to some degree of divergence from an educational path historically thought of as traditional, that is, participating full-time in (Choy, 2002).

Nearly 75% of all undergraduates in the academic year 1999-2000 were classified as non-traditional in that they did not earn a high school diploma, went directly into postsecondary education after high school completion, depended on parents for financial support, or did little to no paid work during the academic school year (Lunsford, 2003). Some researchers (Ogren, 2003; Kim, 2002: & Borden, 2004) fail to see a common definition for these groups of student and some have used the term to describe some students citing it as ambiguous at best in describing such a diverse student group. Borden (2004) argued that non-traditional students have become part of the common experience in higher education and therefore, should no longer be considered non-traditional.

Even though age and adulthood (24 to 25 years and older) have been used as dominant defining characteristics for non-traditional student status, Noel, Levitz, and Saluri (1985) discuss the inadequacies and limitations in using these characteristics to distinguish one student population from the higher education student population at large. They state: “Because the adult student population is quite varied in its characteristic composition,

typical parameters such as chronological age . . . have not been useful in defining subgroups within the population (p. 138).

Cross (1981) had begun the dialogue of age and non-traditional students by suggesting an alternative definition be applied without reference to age-an adult who returns to school either on a full-time or part-time basis while maintaining employment, family, and other responsibilities associated with adult life. He stated that younger students, less than 25 years old, who take on the life responsibilities such as marriage, children and full time employment, are the same as those generally associated with adulthood can be considered adults and added that responsibility could not be measured by age. The non-traditional student s primary attention is placed on employment, family, and other responsibilities.

Various researchers have added other characteristics to the definition of non-traditional such as Westbrook and Sedlacek (1991), gender (Bragg, 2001; Carney-Crompton & Tan (2002), socioeconomic status (Levine, 1993), first generation college attendance (Bragg, 2001). Kim (2002) suggested that instead of categorizing students so broadly as non-traditional for research purposes, placing emphasis on the likeness of individual characteristics may yield more meaningful research findings that benefit a greater number of students.

In the mid 1990s, Horn (1996) presented the design of a structured and tiered model of non-traditional student status in higher education. Non-traditional students were broadly characterized as students who exhibit at least one of the following situational concerns while enrolled in higher education:

1. Delays enrollment (does not enter postsecondary education in the same calendar year of high school completion);
2. Attends on a part-time basis for at least part of the academic year,
3. Works full-time (35 hours or more per week) while enrolled in college coursework;
4. Is considered financially independent for purposes of determining eligibility for financial aid;
5. Has dependents other than a spouse (usually children, but sometimes others);
6. Is a single parent (either not married or married but separated and has dependents); or
7. Does not have a high school diploma (completed high school with a [General Education Diploma] GED or other high school completion certificate or did not finish high school). (Horn, pp. 2-3)

Diverging from previous definitions, this non-traditional student outline failed to give reference to age, but instead referenced such factors as delayed enrollment as a non-traditional characteristic. Delayed enrollment basically described those students who did not begin college soon after high school (Horn, 1996). Horn used the term of dependent caregiver to describe students who did not live in their parent's home and did not rely on parents for total financial support.

Horn (1996) extended his six criteria into degrees by using these situational concerns and compared them to the frequency of non-traditional characteristics that an individual student exhibited, thus classifying that student as minimally, moderately, or highly non-

traditional. Students exhibiting only one non-traditional characteristic were categorized as minimally non-traditional; students exhibiting two or three characteristics were considered moderately non-traditional; students exhibiting four or more characteristics were labeled highly non-traditional (Horn, 1996).

Within Horn's model, there are also 64 variations of highly non-traditional students relative to the number and type of non-traditional characteristics that the individual student exhibits. As an example, one moderately non-traditional student who is single with no dependent children, works full time and is financially independent may prove to face challenges which are vastly different from a similarly categorized moderately non-traditional student who is not employed, but attends college on a part-time basis and has dependent caregiver responsibilities (not necessarily children). Traditionally, other researchers (Strother, 2005; Alfred, 1998; Choy, 2002, and Bryant, 2001) have used different criteria in describing non-traditional students.

Student Age

Age is a variable that tends to garner much interest in research. Georgia's technical colleges have readily available demographic information posted on the Department of Technical and adult Education's website; the governing agency for Georgia's technical college system. Besides typical factors as gender, ethnicity, enrollment status, and others, each college lists there student population that is over 25 years of age indicating a definite extended time for college attendance after high school. Of the sixteen colleges that participated in the Student Satisfaction Inventory, over 51% of the students surveyed are over the age of 25 and in two of the colleges, over 60% of the students were over 25 years old (GDTAE, 2006).

The expectations and needs of older students are the focus of considerable discussion with respect to the community college environment such as an attraction to convenience and efficiency on the college campus (Strother, 2005). Alfred (1998) states that adult students preferred classes that fit their non-traditional schedules, quick and hassle free registration, access to technology and convenience and efficiency. Older students prefer a self-directed approach to their educational interests, varied educational goals, and instructional needs (Miglietti & Strange, 1998).

Race and Ethnicity

Community colleges service the needs of an ethnically and racially diverse student population and referring to the Student Satisfaction Inventory survey, these populations may necessitate attention in areas such as campus climate, concern for the individual, responsiveness to diverse populations, and student-centeredness. The influence of campus climate and displayed concern for the students as individuals are notably important for minority students to have a sense of belonging on college campuses (Brown, Santiago, & Lopez, 2003).

Gender

Researchers such as Choy (2002) suggest that females constitute the majority of community college students as this population is attracted to the community college for a variety of reasons, including convenient geographical location, flexibility in the class schedules, affordability, childcare services, career-related training, and self-improvement experiences (Wolgemuth, Kees, & Safarik, 2003). Johnson (2000) states that women report high levels of stress resulting from parenting, financial constraints, and health concerns. Bryant (2001) notes that community colleges can diminish many of these stressors by

providing campus childcare, specialized orientations designed for adult women, academic and financial aid advising, and peer advisers (Bryant, 2001). As referenced in the Student Satisfaction Inventory, institution's response to the needs of women students may necessitate attention in areas such as Admissions and Financial Aid, Campus Support Services, Concern for the Individual, Registration Effectiveness, and Safety and Security.

First Generation Students

Many non-traditional students are first-generation college students who require remediation and alternative methods of instruction in order to succeed in college-level coursework; they are often under-prepared with weaker college entrance skills (Grimes & David, 1999). Lack of familiarity with the processes of admissions, registration, and financial aid cause problems for first-generation students in addition to limited organizational skills necessary to follow procedures of registration and admissions.

Students with Disabilities

The majority of all students with disabilities in America attend community colleges. Actual attendance varies according to disabilities, but approximately 57% of students with hearing impairments attend community colleges and a similar percentage of learning disabled students. Lesser percentages of visually impaired and mobility-impaired students attend community colleges (Vital Speeches of the Day, 2003). Non-traditional students with disabilities have obvious needs in the physical environment that affect their experience on the community college campus, but researchers such as Cutshall (2001) note needs and experiences which are not physical in nature.

Physical disabilities necessitate among other things, the use of assistive technology which is defined as an item, piece of equipment, or product system, that is used to increase,

maintain, or improve functional capabilities for physically disabled students. Responding to the needs of students with physical disabilities in the community college environment includes attending to issues of campus climate, campus support services, concern for the individual, registration effectiveness, and safety and security.

Challenges of Two-Year College Students

Non-traditional students experience difficulties in the educational environment (Carriuolo, 2002). Employment, financial, and family obligations limit many non-traditional students ability to engage fully in their educational endeavors (Carney-Crompton & Tan, 2002). Campus operations and resources, classroom assignments, internship opportunities, and attendance policies often fail to take into consideration the time constraints within which non-traditional students often operate. Non-traditional students are further challenged as they often do not possess the goal-oriented, life situation, or academic skills that are characteristic of educational persistence and success (Wright & O'Neill, 2002).

As non-traditional characteristics are also considered factors that put students at risk of not attaining their educational goals at the community college, the plight of at-risk students is also relevant in the discussion of non-traditional students. The Community College Survey of Student Engagement (Engagement by Design, 2004) research findings suggest that at-risk students are more likely to take advantage of academic support services such as tutoring, advising, financial aid counseling, skills labs, and career counseling, and rate these services with high importance.

Non-traditional students bring to the technical college campus a variety of expectations, abilities, attitudes, deficiencies, and perceptions with regard to education, all which shape their educational experience. Rogers and Gottlieb (1999) report that non-

traditional students feel different from traditional students; they feel out of place in many ways in the academic environment. They experience feelings of guilt because the time they spend studying takes away from their time commitment to responsibilities at home, at work, and to family. They experience great degrees of pressure to be academically successful. The response of the community college institution must not only include access, but adequate response to the needs, experiences, and expectations of its disproportionately non-traditional student population. The responses must be geared toward the recruitment of new students but possibly more important to the retention of students that are already enrolled and active.

Profile of Faculty

Adjunct faculties are an integral part of the operations of any community college and have been a part of higher education for many years. Adjunct faculty members were originally hired as resident experts employed to teach specific classes or courses. Rifkin (2000) states, “at one time, adjunct faculty enjoyed extremely high status because they were the experts, the visiting professors-- who were so valued for their specialized knowledge that they had to be shared among institutions – prestigious outsiders who lent status and reputation to an institution” (p. 18).

Nearly two-thirds (62%) of faculty at public community and technical colleges throughout the nation are part-time as stated in the U.S. Department of Education, National Center for Education Statistics (Berger, Kirshstein, Zhang, & Carter, 2002) . Shults confirmed these figures from the 1999 National Study of Postsecondary Faculty, indicating that of the 272,600 faculty members in public two-year colleges, over 62% (or 170,100) are adjunct faculty (2003). Shults also finds that across the United States, community colleges

are increasing the use of adjunct faculty. At the same time, however, administrators have increased concerns about teacher competency.

Miller (2000), and other researchers find some inconsistencies in hiring adjunct faculty members. With his surveying of adjunct faculty, he discovered that part-time instructors who work full-time in other non-collegiate jobs may not always have a solid sense of their new duties. Those who have primary careers that are outside of education may not take their teaching seriously enough, and those who work under contracts of one quarter or one semester at a time may believe that their continued employment is dependent upon favorable student evaluations. To this end, Miller says that some faculty may inflate student grades in an effort to avoid complaints, to enhance their evaluations, and, ultimately, to continue their employment. Winer (2004) adds to this sentiment as he states:

In pursuing student [customer] satisfaction, business schools fail in their basic mission of preparing students to be effective performers in the business world. They fail because they focus teachers' attention on maximizing their scores on end-of-term Student Evaluations of Teaching Effectiveness (SETE). An untenured professor not scoring well on these surveys has to start looking for a new job, while a tenured professor receives insulting letters and minimal pay increments (p.441).

With all of these factors considered, community colleges may actually be adding to student attrition without realizing it. Two-year college administrators must be cognizant of the multitude of internal and external pressures that affect these institutions. In some states, revenues that help fund education are lower than expected while costs of education are

higher, which results in public taxpayers' expectation that colleges and universities will make efforts to ensure greater quality, productivity, and effectiveness of their institutions.

Profile of the Institutions

In a study by the AACC (2006), two-year college administrators rated the following external issues as very high in importance at their institutions: state financial support for programs and teaching, linkages with business and industry, and meeting community needs. The most pressing internal issues, according to administrators polled by the AACC (2006), were student retention, creation of new program delivery systems, and student recruitment and marketing. The focus of the paper will parallel these stated concerns and focus on factors that influence students to attend two-year colleges, factors that students feel are important within the two-year colleges and their satisfaction with these factors, and factors that influence student retention within the two-year college system.

Generally, community college campuses are less expensive to build, maintain, and operate because they are typically smaller, more functional, and have less overhead than a traditional four-year college. Very few have athletic stadiums or cafeterias, and entities like libraries and bookstores often share a building with other departments within an institution. Quite often, two-year colleges are built in rural areas and their general curriculum focuses on needs of the area coupled with courses that are transferable to other institutions. Since few community colleges have residence halls, they are built in areas that usually result in a short commute for faculty, staff, and students. Community and technical colleges tend to be built in areas that may be close to interstate roadways and local industry and businesses (Hawthorne, 1994)

To illustrate this close proximity, as noted on the GDTAE (2006) website, there are 34 colleges and universities governed by Georgia's Board of Regents. Also, there are 34 technical colleges in 34 different counties within the state of Georgia governed by the Department of Adult and Technical Education. Additionally, these colleges have satellite branches in another 32 counties, totaling 66 campuses throughout the state. This translates into a college campus in half of the total counties within the state. Though there is a college campus within proximity of most Georgians, presidents must make decisions about which programs to offer. These decisions, coupled with students' concerns that college campuses be located close to home, enhance the opportunity for college choices. Though a campus may be located near a potential student's home (Gappa, 1984) the local college may not offer the courses wanted by the constituents, thus limiting the educational opportunities, enrollment, satisfaction, and retention.

Enrollment Factors in Two-Year Colleges

Lotkowski, Robbins, & Noeth (2004), assert that students attend community colleges for one or more reasons. The authors categorize these reasons in the following ways:

Students Wishing to Attend for Skill Upgrade – Students enroll for reasons related to current occupational needs and the desire to advance in current positions; *Career Preparation* – Students who enroll for reasons related to preparing for a future career; *Major Life Change* – Students enroll because of occupational requirements, but are set apart by the desire to gain skills, enter the workforce, and find a new career because of a recent major life change; *Personal Enrichment/Intellectual Development with Intent to Transfer* – Potential transfer students who look for the study of new and different subjects and the opportunity to meet new people; *Transfer Only Students* – Students more narrowly focused on transfer and who

indicate transfer to a four-year college as the primary, and often the only reason for attending community college; and *No Definite Purpose for Enrolling* – Students with less-determined reasons for attending community college and may experiment to see if college life suits them.

Beyond recruiting efforts, colleges attempt to keep students interested and involved in their education. Colleges are promoting innovative ways to attract students such as promoting non-traditional classroom activities and interviewing alumni for suggestions. For example, technical colleges encourage innovative "hands-on" learning techniques, ranging from fieldwork and internships with area businesses to service learning and advanced research via the Internet (GDTAE, 2005). Furthermore, community and technical college alumni rank themselves as being extremely satisfied with their college experiences and tend to stay involved in the school long after graduation (Sellers, 2004). Kemple suggests that students choose a college and a major based upon their own occupational goals (1997). The belief is that when the curriculum is attractive and meaningful, students will be more satisfied with their college experiences.

Structure

In general, colleges attract students who have a myriad of academic and non-academic interests. Students look for personal correlations and potential satisfaction in many areas within two-year colleges. For example, Hanson, Norman, and Williams, (1998) asked over 11,000 students at the University of Texas-Austin what factors attracted them to the institution. The students listed several factors, such as the college's having programs that match their own occupational goals and the overall structure of the college, the proximity of the college to family, individual or single-need classes, proximity of friends and current employment, personal needs such as being a first-generation college student, friends and

parental influences, the college's geographic and demographic characteristics, student-faculty integration potential, financial aid, and assistance with career choices and planning.

Mobley (2001) found that two-year college structure may be related to student outcomes in the labor force while technical colleges tend to offer courses and degrees that reflect business and industry needs of their area. Students who might be unable to find employment may look to further their education to make themselves more marketable. Generally speaking, enrollments at two-year colleges increase more dramatically than at other institutions during economic downturns (Rouse, 1999). These colleges tend to be smaller in size and population than traditional four-year institutes, and their governance varies as well. Levin (2000) found that the two-year colleges have moved to more business-oriented practices and a corporate style of management. This bureaucratic leadership style may allow these colleges to adapt to changing conditions more readily than typical four-year institutions. Concerning Internet based classes and degrees, Rouse states that distance learning will likely allow colleges to be even more responsive to changes in demand for higher education.

Proximity

According to Pennington, Pittman, and Hurley (2001), community colleges tend to be established in counties that are more economically advantaged. Nevertheless, they also state that the presence of the college does not necessarily affect local economies. Eddy (2005), states that quite often, community and college alliances often form because of urgency, such as a new business or industry in the area. Eddy also claims that these change processes often change again before long-term results can be obtained or measured. Mobley (2001) noted that even though the name implies the college is for the community, there is a lack of

attention to the bridging role of community colleges with student outcomes. He also found that the college structure may be related to student outcomes in the labor force in which the college is located.

Course Offerings of the Institutions

Many two-year colleges offer non-credit classes, continuing education, and personal enrichment classes along with short-curriculum certificates (Cohen & Brawer, 1996). Non-traditional students look to these other factors more readily than traditional students when they choose a college, and Lannan (2003) finds that older adults are often not first-time students. However, two-year colleges are their first choice of schools, and large percentages have no aspirations to complete a degree (Heverly, 1999). Unfortunately, non-traditional students such as older or displaced workers may be overlooked by college recruiters and not addressed by typical recruitment methods, such as brochures and advertisements. Kirk and Dorfman (1983) concurred with a report based upon results of a study conducted with mature (over 35) college-reentry women that found that college advertisements, promotions, and courses tended to be focused on younger males.

Because of the proximity of many states' community colleges as well as increasing competition from on-line institutions, community colleges must identify and evaluate factors that influence students in attending and continuing their educations in their institutions. Kuh and Hu (2001), state that a multitude of factors influence a learning atmosphere and promoting positive outcomes and student goal attainment. These factors include the educational level of parents, the socioeconomic factors surrounding the student, and a student's previous educational background in secondary and post-secondary vocations.

Family Concerns and First Generation Student

Many students who chose two-year colleges are first-generation, transfer, or non-traditional students (Inman, 1999). Though first-generation college students may be intrinsically motivated to attain a degree, and this is certainly a factor for attending college, Grimes and David (1999) indicate that first-generation students are often under prepared, indicate lower degree aspirations, and anticipate needing more time to complete a degree. Hoyt (1999) concurs and adds that first-generation college students may be less likely to persist due to a lack of support from home. Though these types of motivators are extrinsic, students do look to others as resources for assistance in making their educational choices (Anderson & Stewart, 1998). Mullis, Mullis, and Gerwels (1998) state that parents and other family members should assist adolescents with career exploration and planning and should assist in determining the type of higher education a student pursues. Students often look to parents for guidance, but Bers and Galowich (2002) point out that parents lack realistic expectations about how most students move through institutions. They state that parents are usually unaware of the students' class loads, graduation requirements, extracurricular activities, and textbook costs and other fees.

Parental influence

Though parents are concerned for their children, their concern may not be the only factor in why a student chooses to attend a particular college (Cofer & Somers, 2001). Students compare and contrast course offerings at community colleges and four- year colleges – especially in the areas of transferability. Many students look to begin their academic career at smaller community colleges, and Frederickson (1998) asserts that two-

year college transfer students chose majors at four-year institutions that complement programs offered at the college where they are presently enrolled.

Access

Many community and technical college systems offer open enrollment, admitting all students who have a high school diploma or equivalent. Two-year institutions may offer a much different curriculum and training programs than a traditional four-year institution, such as secretarial science, cosmetology, and medical assisting. Many states, through their community and technical colleges, offer training and retraining to new and established businesses as a device in attracting new businesses. In this light, Manning (2004), states that the role of the technical colleges has expanded their scope to include global partnerships in fields such as computer technology and electronics.

College Integration

Two-year colleges attempt to offer programs that students both want and need while attempting to establish programs that are meaningful to students. This meaningfulness translates into social and academic activities that promote and integrate student cohesiveness within the class, programs, and institution as a whole. Tinto states: “the greater the similarity between the student's values, goals, and attitudes and those of the college, the more likely that the student will persist at the college.” (1993, p.4)

Tinto (1993) also suggests that institutions can assist students by developing reasonable expectations about the institution, college life, and education in general. This, he says, will alleviate a multitude of frustrations and disappointments in the students' and institutions agendas by advising students to enroll in programs that suit their individualism. By recognizing and adhering to these factors, administrators can help create a growing

commitment to the institution because an individual's commitment to the institution is the key to retention Tinto).

Financial Aid

Inman (1999) states that the financial aid obligations of first-generation students tend to shape their choices about postsecondary education. Cofer and Sommers (2001) add that, generally speaking, the increases in grants and loans keep pace with the increase in average tuition so that cost factors tend to remain stable. Overall, tuition and fees at community colleges tend to be less than those costs at traditional four-year institutions because of lower overall expenses of the school and fewer opportunities such as athletics and dormitories that would require increased costs to the student.

Career Choices

Hoover (2006), states that information from a study by the U.S Department of Education explains that regardless of the major, the rigor of a student's high school curriculum is the greatest determining factor in how well the student will do in pursuit of a college degree. Ultimately, career choices will turn into life choices. Students will have to choose between selecting a campus that offers the courses they want, changing career goals and career paths to take courses that are available, change to a traditional college or university, choose online classes, or choose not to pursue a college path at all.

Summary

In summary, there are a myriad of factors that influence students to enroll and attend two-year colleges. Two year colleges tend to be in smaller, rural areas that are close to home, family, friends, and employment. The courses that are offered at two-year colleges tend to reflect the needs of the community as well as courses that are strictly for transfer to other

institutions. Within technical colleges, the course offerings generally reflect the business and industry needs to the surrounding community thus students may stay close to home and attend college while also working.

Customer Satisfaction

In education, before determining how to satisfy the customer, it must be determined who qualifies as the customer. Difficulties arise in identifying which customers should be satisfied and what might count as satisfaction. Beaver states that it is difficult in deciding exactly who counts as an end user: those who receive the education, those who pay for it, or those affected by its applications (1994). Winter asserts that "colleges and universities have no clear understanding of who the customers, either internal or external, are" (1991, p. 59).

Potts (1999) asserts that some students feel as though they are customers since they pay for services that are provided to them while others feel that a being considered a customer has connotations of suffocating free inquiry, expression, and open discovery (Potts, 1999). Comparing the educational setting to business practices may have many drawbacks. Schwartzman (1995) asserts that students must have an active and participatory role in their learning while businesses actually attempt to minimize customer input into transactions. Business customers may tend to feel comfortable with their perceptions of their wants and need where students may be solely dependent upon the institution in making career and educational decisions.

In another comparison of education to the business environment, Shank, Walker, and Hayes (1995) state:

Higher education possesses the characteristics of a service industry.

Educational services are intangible, heterogeneous; inseparable from the

person delivering it, variable, perishable, and the customer (student) participates in the process. Additionally, colleges and universities are increasingly finding themselves in an environment that is conducive to understanding the role and importance of service quality; this environment is a fiercely competitive one” (p.73).

Currently, two-year colleges are increasing their emphasis on continuous quality improvement (CQI) as they prepare their customers for global competition in the workplace. A college's credibility in its own service area may suffer if the public perceives a lack of interest in continuous improvement (Paris, 2000). The present emphasis on CQI may be traced to the early 1930s and the work of Walter Shewhart, a statistician at Bell Laboratories (Evans & Lindsay, 1993). The basic tenets of a quality improvement idea are employee involvement and customer satisfaction (Paris).

Hittman (1993) affirms that world competition occurs in the marketplace and that global competition places increasing demands on the educational system to produce a world-class workforce. In a global market environment, it is vital that postsecondary education institutions begin implementing CQI principles. Moreover, Hittman indicates that "implementation can enhance educational institutions' ability to provide high quality academic, technical, and vocational programs" (p 77).

Ruben (1995) states that services such as education, compared to tangible products, face the problem of intangibility, and it is often difficult to describe to potential customers exactly what is being offered. It is equally difficult on occasions for customers to describe what they want from the service. Services are largely about process rather than product and it may be more important to understand how an outcome is arrived at than what the outcome

actually is. Rubin states that the only meaningful performance indicators are those of customer satisfaction.

Student Satisfaction

Frederick Herzberg's Two-Factor theory of motivation (Herzberg, Mausner, and Snyderman, 1967) described two sets of factors that influence job satisfaction. The first set is satisfiers or motivators that, when fulfilled, promote satisfaction. The second set of factors is dissatisfiers or in his model, hygiene factors, that when deficient causes dissatisfaction. The main thesis to Herzberg's theory is that satisfaction and dissatisfaction are not opposites, and that dissatisfaction only means a person is not satisfied. In the realm of student satisfaction surveys, because a student does not list a factor as being high on the satisfaction scale, it does not necessarily mean the student is dissatisfied with that factor (Noel-Levitz, 2006).

Student satisfaction can be broken down into several areas within the college such as with courses, with programs, with admissions, with student services, and other areas of the business and financial aspects of a college. Within these areas, it has been argued that there may be factors that both promote and hinder student success, satisfaction, and goal attainment. However, Donohue and Wong (1997) have found, as other researchers have, that there are many definitions of satisfaction and motivation that present research findings less reliable.

Quite often, student satisfaction is based upon polling students about a single course that have taken. Questions range from quality of the course, satisfaction with the subject matter and instructor, and overall rating of the class. To be truly effective, student attitudes must be measured on items such as quality of instruction, value of interaction levels with instructors and other students, and course applicability. Overall satisfaction with a program

includes students' attitudes concerning factors beyond a classroom such as admissions and registration experiences, placement testing, experiences with library and bookstore personnel and other areas of the institution such as career placement personnel. Students' satisfaction with their overall college experience will depend largely on the information and advice they receive from family, friends, administrators, faculty, staff, and especially career services officers (Karemera, 2003).

A varied amount of research has been conducted regarding students' satisfaction with their attributes such as college majors, jobs, careers, and so on (Elkins, 1975; Kressel, 1990; Littlepage, Perry, & Hodge, 1990; Lunneborg, 1985; Lunneborg & Wilson, 1982, 1985; Morgan, 1997; and Richards, 2003). Elliot and Shin state that many student satisfaction assessments ask an overarching question about total satisfaction. They state that when assessing overall student/customer satisfaction, a composite satisfaction score that incorporates multiple attributes would appear to have more diagnostic value for strategic decision making (2002). Pace (1984) reminds that “students who are most satisfied with college put the most into it and get the most out of it, and high satisfaction correlates with the students' progress in their intellectual and social development” (p. 52).

Colleges lose money when students are not satisfied to point of dropping out of a class or out of the institution entirely. The time and money needed to manage dropouts are an inefficient use of institutional resources. In addition, low retention rates reflect poorly on the quality and credibility of the program. Retention is gaining in importance, as is reflected by the number of federal and state agencies requiring the reporting of retention data (Stover, 2005). However, researchers such as Lewis (2006) feel that some institutions have taken the

concept of satisfying the student too far and sacrifice the mission of the college. About Harvard, he states:

No longer does Harvard teach the things that free the human mind and spirit. In 2005, after a three-year review of its curriculum, it headed toward the conclusion that its students are free agents and for the most part should study what they wish. Harvard teaches students but does not make them wise. A liberal education in the sense Harvard now uses the term is simply an education not meant to make students employable. Harvard will not carry the centuries-old ideal of a liberal education forward into the next generation. It will instead indulge students' inclinations to learn more of what they know already (p. B6).

Collecting information about students is not new, but this process has not always been the driving force for colleges to change, nor has it been the basis for supporting or implementing new initiatives at most institutions. In fact, institutions often moved toward change solely on the recommendation of an individual or group who promoted an idea without clear evidence to support it (Poindexter, 2006). To have a clearer perception, colleges should survey their students about their levels of satisfaction and expectation to determine if they, the institutions, are on the right track. Many have begun to depend on the Community College Survey of Student Engagement (CCSSE) and the National Survey of Student Engagement for this information, as they have become more aware of the important role student input can play in whether students leave or stay on their campuses.

These surveys give insights into the relationship between effective practices and selected aspects of student success. As stated on the CCSSE website, "It is clear that, if a

college wishes to be successful, administrators, faculty and staff must listen to the voices of their students and all stakeholders and incorporate what they hear into their priorities” (2006). Poindexter (2006) also points out that those colleges that do not effectively use data or engage students and listen to their voices risk failure in meeting student satisfaction and expectations, as well as accreditation, membership in various associations and grant opportunities.

The analysis of students' satisfaction with their course of study is an important research area within the evaluation of objectives and missions of two-year colleges. With the growing concern for accountability in educational outcomes, the need for meaningful and stable measures has grown, and in some respects, student satisfaction is a relatively simple variable to evaluate. Some scholars have maintained that is not possible to impose accountability (Jones, 2004), particularly in states that may have internal conflicts with budgetary items. The moment that an institution's weaknesses are exposed publicly, numerous organizational defenses will be stimulated to deflect any criticism rather than to undertake real reform (Stringfield & Yakimowski-Sreblick, 2005). Academic studies involving practitioners show that administrators and faculty who engage in in-depth data analysis often become change agents on their own campus when they are able to decide which outcome indicators to examine (Bensimon, Bauman, Polkinghorn, & Vallejo, 2004). Dorweiler and Yakhou (2002) assert:

From a both a theoretical as well as a practical standpoint, academic administrators would be better off understanding the needs of their primary and specific target audience (i.e. students) before they attempt to develop and implement programs that, based on prior research, appear to address all the

issues that presumably lead to satisfaction - or, from the other direction, eliminate all those factors that presumably cause dissatisfaction (p. 24).

To address the processes that influence student outcomes, many community colleges have begun to adopt assessment instruments and procedures marketed by several national organizations. These assessments center on surveys of student attitudes and behaviors, as well as their satisfaction with various aspects of their college experiences. The same surveys are used nationwide and as they are adopted by peer institutions, the results create a national database that provides an institution resource to conduct benchmarking comparisons (Noel-Levitz, 2006).

Student satisfaction surveys are the lens through which an institution can gather the views of its programs, services, and facilities from the students' perspective. Schroeder (2003) asserts that the evaluation must not stop with the survey but serve as the catalyst for broadly based campus conversations. Several quantitative tools are available to measure students' perceptions of the college that they are attending. Among the many are the Community College Student Experiences Questionnaire (CCSEQ), the Community College Survey of Student Engagement (CCSSE), the Cooperative Institutional Research Program (CIRP), and the AACC/ACT Faces of the Future Survey (FOF), the ACT Student Opinion Survey (SOS), and the Noel-Levitz Student Satisfaction Inventory (SSI).

There are a variety of surveys available that attempt to measure student satisfaction. The Community College Student Experience Questionnaire (CCSEQ) assesses progress toward education goals, satisfaction with environment, and collects demographic and background information. The Community College Survey of Student Engagement (CCSSE) measures five areas of collegiate experiences while the Cooperative Institutional Research

Program (CIRP) focuses on students' high school experiences, expectations, goals, reasons for attending college. The AACC/ACT Faces of the Future Survey (FOF) focuses on students' experiences in relation to their goals and expectations while the ACT Student Opinion Survey (SOS) focuses on student satisfaction with and use of various college services. The Noel-Levitz Student Satisfaction Inventory (SSI) focuses upon student satisfaction with a wide range of college experiences and student perception of overall services of the college.

Noel-Levitz Student Satisfaction Inventory

The Noel-Levitz Student Satisfaction Inventory (SSI) uses 12 scales that include academic advising, campus climate, support services, concern for the individual, instructional effectiveness, admissions and financial aid effectiveness, registration effectiveness, responsiveness to diverse populations, safety and security, service excellence, student-centeredness and academic services. Students rank their perceptions of these institutional factors with a seven-point Likert response scale assesses "importance to you," and "satisfaction with" various campus services. Three scores are then provided: an importance score, a satisfaction score, and a gap score. The performance gap score indicates the difference between importance and satisfaction. Composite scales can be analyzed to determine trends in importance, satisfaction and performance over the most recent five years.

The survey is administered in randomly selected classes, stratified by class time, selected by participating colleges. When using the SSI, an institution is able to determine both the importance of areas of the institution as perceived by the students and satisfaction levels with various aspects of their college experience. Also, the instrument's analysis is used for measuring the precise gap between expectations and importance to the students and

performance or how satisfied the student is with that particular item in the institution. A limitation to these surveys, as stated by Dowd and Korn, (2005), may be the quantitative approach that is taken with marginal information gathered via qualitative means. Astin (1993) has found that using other surveys in the past, student attitudes and behavior are not strongly enforced by studies on campus climate and cultural difference (Astin, 1993). Instruments are now being revised by scholars who emphasize supportive relationships and cultural awareness (Gonzalez, 2001).

Roszkowski and Ricci (2005) point out those other concerns about these instruments arise with statements such as these:

Student dissatisfaction with certain aspects of college has been linked to attrition. Some developers of satisfaction surveys contend that in addition to satisfaction ratings, the questionnaire should contain an importance scale because dissatisfaction with the less important aspects of college is not as problematic as dissatisfaction with the more important aspects. Conversely, critics of importance ratings argue that they are unnecessary because respondents implicitly consider the importance of an attribute when formulating their satisfaction judgment, (p. 271).

The Noel-Levitz (2006) company, the administrators of the SSI, state that after colleges have administered the national surveys, there are three types of comparisons that administrators may use for benchmarking and comparing practices of other schools that have also taken the survey. The first is a comparison of institutional scores to national norms from all colleges that have administered the survey. The second is a comparison of institutional scores of those of a smaller number of peer institutions such as using only community or

two-year colleges and the third is a comparison against the institution's stated mission. Any combination of comparisons may alert institutions of issues that may need attention.

The Student Satisfaction Inventory was used for this study because different variables may be assessed such as measuring students' sense of importance (expectations) of campus environmental factors as well as their satisfaction of experience with these same variables. Administrators can then compare the students' ratings of the importance (expectations) and their satisfaction, which will in turn identify what Noel-Levitz has termed as "performance gaps" for each standardized item. There are twelve scales of the Inventory Normative data from all participating two-year public institutions including community and technical colleges from throughout the United States.

12 Criteria of Noel-Levitz Student Satisfaction Inventory

Various research studies comprise the investigation of the topics including in this chapter and of the Noel-Levitz Student Satisfaction Inventory (SSI). A copy of the major research is found in Table 1.

Academic Advising Effectiveness

Also called Academic Advising and Counseling Effectiveness, this section assesses the academic advising program, evaluating advisors and counselors on their knowledge, competence, approachability, and personal concern for students. In today's educational environment, and particularly at four-year colleges and universities that have dorm and library Internet service readily available, students can register for classes online without ever seeing an academic advisor. For some schools, this may be the only way for a student to register for classes, check financial aid, and monitor other information. Some Colleges may be focusing on student-led registration as a convenience but students may feel that the time

shared with advisors is essential. If students are on their own in selecting classes and designing their own plans, then students completely bypass the advising process. As Wyckoff (1999) notes, "To establish a high degree of commitment to the academic advising process, university and college administrators must become cognizant not only of the educational value of advising but of the role advising plays in the retention of students" (p 3).

Crockett, Habley, and Cowart (1987) state that only about half of postsecondary institutions have policies or written statements that describe the advising process and how it relates to students, advisors, other faculty members of a department who may not be advisors, and other staff members who are involved in enrollment and registration after the advisement process is complete. These authors also state that over two-thirds (68%) of the postsecondary institutions they surveyed have no criteria for selecting advisors for individual students and suggest that this shows a lack of consideration and unconcern on the institutions' behalf towards the process. The authors feel that the advisement process is important, and advisors who are most qualified to work with students who are at risk should be coupled with the students.

Metzner's (1989) research focuses on measuring the relationship between student attitudes and satisfactions with an institution and the quality – in the student's assessment – of advising that the student received. His study was an investigation of freshman-to-sophomore retention rates of students enrolled at public university, and it may be argued that the study is applicable to all higher-education institutions. The results of the study showed that students who rated their perception of their advisement as a positive experience were more likely to have positive feelings toward the institution. Further data analysis by Metzner revealed that

high-quality advisement as reported by students has a statistically significant, indirect effect on persistence, satisfaction, and retention.

King (1993) states that one of the ways that faculty play an instrumental role in the academic and personal life of students is through quality academic advisement. According to King, advisement may be the most important relationship that instructors have with students. Gordon (1985) suggested, "If there is an active, involved, ongoing relationship between students and faculty advisors, a faculty advising system can be an important ingredient in the retention process" (p 127). He adds that academic advisement is the most critical service available for community college students that can be offered by faculty. Citing a survey by the American College Testing Program, King (1993) states that poor academic advising is the strongest negative factor in student retention.

Quereshi (1998) states that the overall satisfaction with a department is related to the effectiveness of a career development program, helpfulness in personal development, and the support of faculty members and faculty advisers while Benshoff & Spruill (2000), assert that provide counselors with a solid foundation and structure for regular evaluation of their practice and a theoretical base to understand and intervene with students. Regarding students, Nelson (2005) found that successful students develop relationships with their instructors: they arrive early to class, sit where the instructor can see them, and enter class discussions when appropriate. In addition, Colton, Colton, and Shultz (2001) have found that combining the faculty advising relationship with a faculty mentoring relationship creates a stronger bond between faculty members and students. Because students are often unclear about the choice of majors, these authors suggested that effective advisement is a factor in attracting and retaining students in particular majors. Thomas and Galambos (2004), state that areas such as

faculty preparedness emerge as a principal determinant of satisfaction. Campus services and facilities have limited effects, and students' demographic characteristics are not significant predictors of satisfaction.

Campus Climate

This criterion evaluates how the institution promotes a sense of campus pride and belonging. In-class and out-of-class relationships and both academic and social involvement are important for students. As reported by Tanaka (2002), the recent emphasis on student commitment and retention by accrediting agencies results in greater attention to policies and practices that improve student retention. In regards to these demands, Coll & Stewart (2003) believe that one of the ways in which counseling services can better assist colleges and universities in meeting their aims is through prevention initiatives designed to enhance the retention of students. In particular, involvement matters most during the first year of enrollment, as almost half of all students who withdraw from college do so before the start of the second year (Brawer 1996).

Stefani, Bjorklund, Cabrera, Colbeck, Parente and Terenzini (2001) noted in a number of studies that a "warmer" climate is related to students' willingness to socialize and discuss racial issues and to greater tolerance and appreciation for diverse populations. Hess and Kerksen-Griep (2003) describe areas where respect communicated to students through solidarity of the colleges' mission may aid students' motivation and engagement regardless of how immediate students find their instructors to be. Teachers' solidarity may encourage students to see them as concerned mentors and expert problem-solvers rather than as friends or adversarial taskmasters. As a consequence, a learning environment emerges from the interactive dynamics of a course whereby the teacher becomes a learner and the learners

became teachers (Rifkind, 2003). Brawer (1996) finds that since many two-year colleges do not have typical gathering places, such as a cafeteria, a large student center, or many social clubs, students tend to socialize in classrooms and labs and build friendships and social groups in these areas of the campus.

Rossi and Royal (1999), state that to promote student satisfaction in a school community, communication must be open and two-way, participation is widespread throughout the institution, and teamwork is prevalent along with diversity. Strauss and Volkwein (2004) add that the campus environment itself, promotes the student's investment of psychological and physical energy in the learning process. Lau (2004) concurs and adds that institutions must work towards providing students with a meaningful learning environment. By doing this, students are more apt to feel connected to the institution by developing a sense of belonging. Therefore, efforts must be made to satisfy and retain students while they are on campus and in classrooms.

Campus Support Services

This area assesses the quality of support programs and services. Bean (1982) recommended outreach program for parents and students to make them aware of programs and services offered by institution. A supportive environment for students in helping them to make a right choice in joining the college in the first instance will boost retention. This was also supported by Lenning, Beal, and Sauer (1980). They refer to various studies documenting that students would not have attended or did not attend certain institutions due to the lack or clarity of information they received. Many community colleges have learning-support centers. Students may attend courses that are developmental, or "remedial," because more and more students enter college with one or more deficiencies. These students must

upgrade their academic aptitude by taking developmental courses before they can be expected to succeed in their declared major. Though some students may object to taking courses that do not apply to their major and may delay graduating, the effectiveness of these developmental courses is well-established.

Deberard, Julka, and Spielmans (2004) state that the stress levels of new students tend to increase, no matter what institution they are attending. One potential buffer of stress is social support. It appears social support may be quite crucial in successful transition to the college environment and Perez's (1998) attrition studies show that students at the community college most often stop out or drop out due to the pressures of meeting the challenges of everyday life.

One deterrent to retention is the lack of academic skills that some two-year students possess. To combat this, institutions may have areas of student services, counseling, and learning support. Hagie, Kuo, and Miller (2004), assert that services may be considered as learning support which provides guidance on test-taking or note-taking skills or study skills that enhance student retention and therefore require administrative attention. Clark, Sawyer, and Severy (2004) add that career counseling aids in assisting students in choosing academic majors, in ascertaining potential careers, and in identifying other attrition factors such as the influences of the family, cultural values, and employment status, among others.

Pope (2005) also warns that to be effective, mentoring programs cannot be one dimensional; the mentor must provide guidance to the student in academic, personal, and professional areas while Phillips-Miller and Morrison (1999) feel that the potential of counseling services would be more fully realized if programs became more fully integrated into the academic mission of the institution. The process must be dynamic, and Archer and

Cooper's (2002) research suggests expanding the growth of counseling center evaluation and research studies. Deneui (2003) asserts that students who participate in more campus activities like these report higher Psychological Sense of Community (PSC), and this development relates to individual personality traits as well as student involvement and participation in various campus activities and organizations, thereby increasing overall satisfaction levels. Leppell (2005) states:

Schools need to provide information to assist students in selecting fields that fit their talents and personalities. Students should be encouraged to explore different courses to see what appeals to them. The career counseling office should have assessment tools that compile students' personal attributes and identify compatible educational and career goals. Then, if the appropriate match is a lucrative field, the student will be even happier. But if it's not, and the student is one who places much emphasis on financial success, the counselor needs to explain that the student is likely to be more satisfied in the long run in a well-suited career. Furthermore, people are less likely to be successful in jobs they dislike (p. 240).

Concern for the Individual

This variable assesses the college's commitment to treating each student as an individual, and it includes groups who deal personally with students (e.g., faculty, advisors, counselors, and staff). A wide range of estimates exists concerning peer relations' impact on academic outcomes. Many four-year college studies have found moderately strong correlations between social integration variables (including peer relations measures) and several academic outcomes, such as institutional commitment, retention, and career success

(Cabrera, Nora, & Castaneda, 1993, p 131; & Pascarella, 1980). When four-year college social integration theories have been applied to community college students, the research has produced contradictory findings. About half of the studies found a positive correlation between social integration and institutional commitment, retention, persistence, transfer, or graduation while the other half of the studies found no correlation or even a negative relationship (Bers & Smith, 1991; Braxton, Milem, & Sullivan, 2000).

Concerning individualism, Rosenberg (2005) found four domains in which a person feels that he or she matters: attention, importance, ego-extension, and dependence. Coupled with these findings is research that indicates that a close association exists between students' cultural background and their preferred learning styles. Papo(2001) relates that college that may employ such attributes as having courses in large classes with many students are not seen or perceived as a problem by students as the size of a class is not the issue—individual attention is.

Coupled with classroom experiences, other areas of the institution, as well as school personnel may influence individual student's satisfaction. Shoffner & Williamson (2000) find that school counselors frequently see their purpose as indirectly increasing student achievement and they are individual student advocates and focus on the causes of student behavior.

A majority of more current research focuses on out-of-class communication such as student's office visits, scheduled advising times, or simply meeting by chance. The findings of these researchers support the importance of faculty-student interaction. Most of the research on student-faculty out-of-class communication is somewhat dated, but does focus on the importance in student retention (e.g. Pascarella, 1980). Pascarella also found that students

who remained in school versus those who eventually withdrew reported more contacts with faculty outside the classroom environment during their school career than did students who had quit. Other benefits have included better-developed career plans, more satisfaction with college experiences (Astin, 1977), and better intellectual and personal development (Chickering, 1972). Lamport (1993) asserts a drawback with this data when he states:

A major problem in collecting data on student-faculty informal interaction has been a lack of standardized instruments specific to the subject. Some studies have employed more generic instruments (e.g., College Student Questionnaire, Omnibus Personality Inventory, College and University Environment Survey), and then tried to categorize respondents as high, medium, or low interacting groups. The investigators then correlated the information from the standardized measure and the amount of interaction, and drew their own conclusions (p.18).

Faculty influence is not a new phenomenon. Jacob (1998) reported that faculty influence appears more profound at institutions where association between faculty and students is normal and frequent, and students find teachers receptive to unhurried conversations out of class while other research by Miller and Vancko (2000) has not indicated a dramatic change in this pattern. Fusani (1994) agrees and says that the evidence shows that out-of-class communication and contact access should be increased. In contrast to previous findings, Fusani reported that 23% of students had “neither visited nor informally chatted with the instructor while 50% of respondents had experienced two or less contacts” (p. 239).

Instructional Effectiveness

This criterion measures students' academic experiences, the curriculum, and the campus's commitment to academic excellence. Faculty members, because of position and referent power bases, may be in such a position with a student that their influence can be very significant as they represent an authority figure, a mentor, and a role model. These factors may not be present anywhere else in the student's life. In a frequently cited study of student retention, Astin (1993) concluded, "Next to peer group, the faculty represents the most significant aspect of the student's undergraduate development" (p 410). Earlier studies of transfer students (Volkwein, King, & Terenzini, 1986) and freshman students (Pascarella & Terenzini, 1977) added to the basis that instructors have the greatest amount of influence concerning learned behaviors, skill attainment, and overall satisfaction with regards to students. More current research by Schreiber and Shinn (2003) indicate that a teacher's attitude toward the school and toward the individual student has more of an influence on achievement than other institutional factors.

The primary function of the faculty is to facilitate learning, but because the student experience at a two-year college campus can be brief compared to a four-year college, the faculty role becomes even more critical at a two-year college considering the shorter time frame for goal attainment (Pascarella & Terenzini, 1991). King (1993) agrees with other researchers with his assertion that one of the ways that the faculty can have additional impact on the life of the student is through class and degree advising.

Gordon (1985) found, "If there is an active, involved, ongoing relationship between students and faculty advisors, a faculty advising system can be an important ingredient in the retention process" (p 127). This has been studied more currently by other researchers. In the

classroom, for example, faculty are being challenged to provide options for learning, such as combining two courses to create new learning communities, providing an environment that is different from the traditional room and time schedule, using technology, or even using the students as facilitators for the class (Poindexter, 2006).

Finally-Neumann (1994) states that students' satisfaction with their program of study is based upon a culmination of attitudes concerning different instructors and their teaching styles, different types of classes, and means by which performance is graded. Hagedorn, Maxwell, Rodriguez, Hocevar, & Fillpot (2000) assert that community college students' attitudes are mostly influenced by activities within the classroom and not extracurricular activities such as "student clubs, student government, concerts and artistic events" (p 591).

Hebert and Rubin (1998) provided strong evidence which concluded that peer teaching or tutoring increases the student's involvement in the learning process and enriches the student's understanding of the course materials. Therefore, it may be argued that students must be encouraged to attempt all sorts of learning techniques, including peer teaching or tutoring, to facilitate their own learning. Mathews (1996) expansion of this research finds that students work with peers and instructors to explore and understand the concepts and fundamentals of the subject discipline. To apply this newly acquired knowledge to practical situations, students need to work with peers and instructors to explore and understand the concepts and fundamentals of the subject discipline, and then to apply this newly acquired knowledge to practical situations (Mathews, 1996). More current work by Alexander and Ismail, (2005) indicates that peer teaching, teams, and group projects allow students to interact with each other and gain insight on the topics covered.

Wiest, Wong, & Woodside (1999) assess that students and faculty must engage in in-class verbal and nonverbal immediacy behaviors to contribute to students' level of academic achievement; as well as their perceptions of school-related competence. College cultures and missions are changing, and strategic plans may be following different routes than in the past for two-year colleges. Administrators everywhere are focusing on the bottom line of cost effectiveness. Competition from for-profit institutions, where administrators can quickly push through a new program or curriculum, has community-college officials searching for ways to cut through their own red tape (Louziotis, 2000). A wave of retirements among faculty members and administrators presents two-year colleges with an opportunity to reshape community colleges' culture. Todd (1998), states that the two-year colleges' bottom line does not really survive without using adjunct faculty and eliminating some full-time positions. The author also states that that many adjunct faculty members today have the same, if not better, credentials that full-time, tenured professors

Regarding changes in community college makeup and culture changes, Bowen and Schuster (1986) argued that fewer and fewer students are opting for academic careers. More than 10 years after this study, Cohen and Brawer (1996) found the reality of this concern is even more evident in that this faculty initially did not select an academic career in community colleges; but it is also true that university graduate programs do little to encourage the viability of the sector for employment, especially among prospective faculty. Much of the literature in higher education tends to portray community colleges as poor examples of research universities, often being omitted or relegated to a single chapter in texts. What makes this paramount is that statistics are clear that the number of students attending community colleges for some duration of their academic careers is growing

(Dougherty, 1994). Palmer (1994) states that appropriately trained, committed professionals are critically important in a postsecondary sector whose mission is, in part, to support those students who have been neglected and marginalized by the traditional collegiate system. These students might be better served if faculty members are trained with an emphasis in community colleges.

Admissions and Financial Aid Effectiveness

This is a measure of the competence of admissions counselors, along with students' perceptions of the financial aid programs. Although financial aid processing is specified in state and federal law, financial aid offices are given a great deal of flexibility in how they implement those regulations. Moreover, financial aid offices at community colleges vary widely in terms of size, staffing level, and administrative support (MacCallum, 2005).

In the past twenty years, state and federal governments continually change the manner in which they fund higher education (Mumper, 1996; Paulsen & St. John, 2005). In lieu of grants, the federal government has shifted to a policy that prefers the use of student loans. State support has been cut to higher education institutions, which has brought about increases in tuition rates. This increase, in turn, places a greater financial burden upon the students (Paulsen & St. John, 2005). Some may argue that loans may be more difficult to obtain than grants for minority students, yet Tekleselassie's (2005) findings contradict these sentiments show that the receipt of financial aid may actually favor blacks over whites and females over males.

When students' values, goals, and attitudes are a close fit to an institution, researchers have found a greater possibility of student persistence and less attrition. One of the first areas that all students initially come in contact with an institution is in the admissions area.

Admissions, coupled with promotional materials distributed by the college, can be instrumental in forming new students' perceptions and expectations. Seidman (1996), states that retention begins with the admissions process. He also finds that pre-admission and post-admission counseling, along with an orientation process; create a higher degree of persistence and satisfaction with the students.

Cuccaro-Alamin & Choy (1998) state that although tuition and fee increases are sometimes offset by increases in the availability of financial aid, community college students are less likely than are their four-year counterparts to seek financial aid or loans to facilitate completion of their education. Towns (1997) emphasizes that students should be informed about the various types of financial aid and scholarship programs available, both on and off campus. Additionally, Manuanane-Drechsel & Hagedorn (2000) assert that for these students, there is a positive relationship between retention and the extent of financial aid, since the financial aid award for any given student is determined by both the cost of attending a given institution and the student's ability to pay. One way to make a college education widely accessible is to charge low tuition (Rose & Sorensen, 1992). If students have borrowed to finance their studies and do not complete their programs, some of these students may be left worse off as they leave college with a debt to repay but no degree.

Registration Effectiveness

This area assesses registration and billing, including how smooth the registration process is. Researchers have begun to emphasize that college students' satisfaction begins with their initial contact with an institution. Often, admissions offices are limited to assistance in dealing with finances, home and family, transportation, on-campus day care, financial aid, parking and transportation, campus security arrangements, and college health

and wellness programs. These factors must be satisfactorily addressed before a student begins to feel comfort with the institution. Money issues are at the forefront of students' concerns as Bers & Galowich (2002) state that factors related to money and to students' uncertainties about college are more influential than college reputation or the importance of friends or family members. To facilitate this transition, Bitler, Rankin, & Schrass (2000) suggest that academic institutions have the capability of offering a great deal of content and services to students, parents, alumni, faculty, and staff. Brochures, readily available course descriptions, and the best websites will offer ease in navigation, regular update information, and an abundance of contact information.

Responsiveness to Diverse Populations

This section of the inventory assesses the institution's commitment to specific groups of students enrolled at the institution (e.g., commuters, part-time students, adult learners, under-represented populations, and students with disabilities). Phillips (2005) sites various researchers that state for students to feel as though they are part of a college community, they must make a connection to some aspect of the institution from classroom activities, clubs, or unorganized peer groups that allow them the feeling of fitting in. According to Horn (1996), many two-year colleges are comprised of a diverse population base that he has labeled as non-traditional. Some characteristics that Horn has found of these students are that they attend college part time, work at least half time, did not begin college directly from high school, and do not live with their parents.

Jamilah (2005) asserts:

At risk students are defined as students who are enrolled in remedial courses, did not enter college immediately after high school, have one or more

dependents, attend college part time, are single parents, are financially independent, work 30 or more hours per week, or are the first in their families to attend college. According to the CCSEQ (Community College Student Experiences Questionnaire) report, students at community colleges are three to four times more likely to fit into four or more of those categories than are peers at four-year institutions. Despite such challenges, the report found that at-risk students are consistently more engaged than their classmates are (p.A38).

Two-year colleges often present open-enrollment policies that allow students to enroll in the institution with little or no minimum requirement except the possibility of age restrictions. Reisberg (1999) asserts: “These open enrollment policies, coupled with and low tuition rates or in some instances, through state and federal grants, no tuition, allow for the likelihood of many at risk students-- those categorized as some minority groups, students from low-income families, or first-generation students whose parents never attended college-- being able to enroll in two-year colleges,” (p. A55).

Community colleges frequently enroll a large number of non-traditional students, thereby risking high attrition rates due to open admissions and ease of accessibility (Seidman, 1996). Benshoff and Spruill (2000) stated that upward social mobility might be the single most powerful factor for non-traditional students to attend college. They also assert that students reported being convinced that higher education was the only key to greater opportunities, better jobs, greater financial rewards, and more satisfying work. By having policies that allow all comers, two-year colleges may lose a portion of their identity and produce a less student-centered environment.

Access alone, however, may not be enough as commuter institutions (those with no dormitories or housing) offer little opportunity for students to interact socially outside of a classroom environment (Chapman & Pascarella, 1983; Tinto, 1987). Since there is no on-campus housing, students must live in fairly close proximity to an institution. In doing so, students have fewer opportunities to associate with other students and college personnel outside of a classroom environment.

In a more traditional description of diverse student groups, Avalos (1993), states that more than 50% of Hispanic students attend a two-year college, but out of those attending, very few complete a degree. Fields (2005), states that many of the same hindrances facing other students are prevalent within the Hispanic population of students, such as financial reasons, lack of motivation, time and family conflicts, and possibly most prevalent within this group, lack of academic preparation. Walker (2004) found that retention rates for Hispanic students were increasing. At that time, he said increases were due to financial aid grants that targeted Hispanics, career counseling in certain academic programs, and participation in English as a Second Language (ESL) classes. However, according to Avalos, the decrease in grant opportunities and the increase in student loans may have been a factor in this increase in attrition rates.

Burris-Kitchen, Der-Karabetian, & Morrow (2000), state that there is growing recognition that the campus climate also plays an important role in the success or failure of minority students. Higher dropout rates for Latinos, African Americans, and Native Americans on predominantly White campuses are now partially attributed to an inhospitable climate. Gay (1997) advises that issues of ethnic and cultural diversity should be dealt with in teacher preparation programs.

Dodd, Gary, & Kling (2004) identify college students 25 years and older as the fastest growing educational demographic in higher education. In regards to these trends, Borkowski (1988) states that important consequences of these demographic changes will include a decrease in the pool of traditional entry-level workers and an increase in the median age of the majority population. These consequences will have a significant impact on both the economy and the educational system by threatening that delicate balance between workforce needs and the availability of workers with the necessary skills.

Miglietti and Strange (1998) state that since community colleges are smaller, are more bureaucratic, and can change quicker to market and area needs, they are typically better at attracting non-traditional students. For example, adult students bring unique learning interests, educational goals, and instructional needs to the classroom. As college enrollments grow more diverse, meeting the instructional needs of a changing student population is paramount. Serving students well should include examining students' preferences for different teaching styles as well. The process may need to include an examination of learning styles and how each of these factors--teaching style, classroom environment, and learning style --contributes to students' academic achievement and satisfaction.

Gladieux and Swail (2000) predict that the nation's college-age population will be even more ethnically diverse than the general population because of differential birthrates and migration patterns. Furthermore, they state:

“the most rapid growth will occur among groups traditionally more likely to drop out of school, less likely to enroll in college-preparatory course work, less likely to graduate from high school, less likely to enroll in college, and least likely to persist to earn a baccalaureate degree" (p 689).

One of the most common findings in research on student success in college is that attendance patterns have a strong influence of student completion (Horn & Carroll, 1996). Those students who delay their college interests after high school or those that work while they attend college are less likely to earn a degree (Bailey & Alfonse, 2004). Community-college students generally are more likely to have non-traditional patterns of attendance, and these patterns that put students at risk of failing to persist are those that characterize most community-college students (Horn & Carroll, 1996). Since lower-income students are most likely to interrupt, delay, or have part-time enrollment; this socioeconomic factor may influence the student's educational results (Horn & Carroll).

Safety and Security

These safety and security criteria measure the campus' responsiveness to students' personal safety and security. Counselors and other staff and administrators are encouraged to be knowledgeable about federal laws and institutional policies that address sexual assault. Some colleges may have information concerning sexual assault but may not have implemented policies that will effectively address issues like sexual assault. Shearing & Wood (1998) feel as though colleges need to pattern themselves after businesses and corporate communities and take explicit responsibility for the maintenance of security while Dufresne (2005) concurred that students have become accustomed to a safe environment. Caruso, Goins, Lee, & Southerland (2003) site that the purpose of the Campus Security Act was to encourage institutions of higher education to place more emphasis on campus safety. The disclosure of accurate campus crime statistics is required so that potential students and parents can make informed decisions about college attendance and safety issues.

Service Excellence

This area of the instrument measures quality of service and personal concern for students in various areas of campus. To ease the student's transition from high school to college, higher education administrators must help students adjust to their new learning and living environments and ensure that the institution accommodates the student's needs, interests, and learning styles. Annual college tours, job fairs, college financial aid workshops, and offering college courses on the high school campus are but a few of the activities designed to increase the rate of such activities (Williams, 2003). Bailey, et al (2004) found that students wanted a more demanding program, more opportunities for directed research career assistance, and an integration of basic material into classroom experience and use data that has been obtained from numerous sources. Typically, community colleges employ multiple techniques and programs--consisting of placement testing, counseling and advising, supplemental instruction, learning communities, tutoring and skills labs, orientation, and first-year experience programs--in their effort to enhance student retention and achievement (Sheldon, (2003).

Wehlage and White (1996) state that the communally organized school was more likely to succeed in serving the nonacademic needs of students because support programs achieved greater integration and focus than in the bureaucratically organized school. In reference to schools serving diverse students, Stone & Wehlage (1996) assert that less-bureaucratic schools tend to have a focused vision and shared responsibility and that faculty needs to take steps to ensure that the schools' community includes the students and their ideas.

Student Centeredness

The criteria of the measure are to ascertain the student's attitudes toward an institution and the extent to which they feel welcome and valued. Students over the age of 25 and representative of a minority population are labeled as non-traditional and adult learners in many research periodicals. It is theorized that this group of students over the age of 25 may have a greater sense of responsibility, more life experiences, and better time-management skills than younger students. Because of these factors, traditional definitions of program completion and retention may not be applicable to these groups of learners. Adult learners tend to gather the information or learn a particular skill and then attempt to apply these skills through finding employment versus completing a degree just for the sake of completion

Adult learners are affected by the same factors as other students, including time management, family and work needs, economic barriers, and logistics, but the effect is possibly to a differing degree. Kerka (1989) states, that for adult students it is more important to find applicability of subject matter than to achieve good grades. Also, he states that socialization takes on a different meaning with adult learners as they tend to enjoy group work and studying together instead of joining social groups or campus activities. Heisserer & Parette (2002) confirmed this and remind that personnel should make a concerted and coordinated effort to develop a comprehensive plan targeting at-risk students, while Napoli and Wortman (1998) indicate that academic and social integration have both direct and indirect effects on persistence in college overall. Students who are integrated have stronger goal and institutional commitments, and these in turn influence persistence.

Clark, Sawyer & Severy (2004) assert that career counseling not only facilitates the selection of an academic major and potential career but also helps to clarify students' values and lifestyle considerations, including the influences of the family of origin, because cultural values often strongly influence the decisions made. Bui's (2002) study shows that first-generation college students are demographically different from students whose parents have had some college experience or whose parents have actually earned at least a bachelor's degree. First-generation students, Bui states, tend to live in the same communities that have always lived and worked and have not traveled to other towns or cities to attend college. With these students in mind, Grupe (2002) asserts that effective major advisement is important because students who are clear about the match between their needs and the institution's offerings (majors) and resources are (a) more likely to enroll, (b) less likely to take classes that don't contribute toward graduation, (c) more likely to enjoy college, and (d) more apt to persist to graduation.

Maxwell (1998) found substantial evidence that a community college can offer supplemental instruction to enable low-income students to independently interact with each other in their studies and coursework outside the classroom and without supervision by the faculty. Added to this, Beatty-Guenter (1994) maintains that these students have had limited assistance in dealing with finances, home and family, transportation, on-campus day care, financial aid, parking and transportation, campus security arrangements, and college health and wellness programs. Because of the importance of increasing student retention, colleges may need to focus more attention on these factors not as retention issues, but as initial recruitment factors.

Chickering & Gamson (1987) stated that faculty members at a two-year institution have many more roles than just a class facilitator. They also assert that the contact made between the instructor and the student plays a large role in the student's involvement in projects in and out of the classroom as well as the students' overall motivation. Tinto (1987) built upon this and concurs that those students who report higher levels of contact with peers and faculty also demonstrate higher levels of learning gain over the course of their stay in college and complete their educational objectives. Hillman & Thibodeau (2003) more current work proclaim that those teachers who maximize instructional skills remain at the forefront of being recalled by students as teachers who made a difference. They also contend that the additional dimensions of respectful treatment of students, personality, and behavior/classroom management garner stronger relationships between faculty and students.

Beyond the classroom, Kuh (1995) noted that when students had out-of-classroom activities with their community of classroom-based peers, this cohesiveness served to support students and encourage their continued attendance and class participation., Rivard (2001) reminds that not every student possesses the qualities for success in an online environment; careful attention must be given not to discourage these types of activities such as out-of-classroom only classes. In light of this, only 2 percent of the 139,083 community college courses offered in 1999 were offered through distance education (Gwyer, 1999).

Within the college setting, Karemera (2003) found evidence to support the premise that student service departments have a positive influence on student outcomes and increase student satisfaction within the college. Karemera also noted that having a professional development program and internship opportunities are an important and integral part of the

student learning experience and development and are associated with better academic performance.

Academic Services

Academic services areas assess services that students utilize to achieve their academic goals, such as the library, computer labs, tutoring, and study areas. Creemers, Reynolds, Schaffer, Stringfield, & Teddlie (2002) state that much of the previous research has focused on increasing teacher collaboration and community building as these techniques classrooms have been expanded from traditional lecture to include differentiated learning, peer teaching, and small learning communities. Since the classroom and labs (versus student clubs or areas where students may congregate) appear to be the where most relationships and other student involvement occurs, Brawer (1996) feels that this area should be emphasized when planning retention strategies because many students do not participate in social activities typically found in four-year colleges.

Callahan, et al (1997) suggest a need to help evolving and new teachers develop new images of classrooms and instruction--a process that will require the same sort of flexibility of time, resources, and support invested in the new teachers. Crowell & Williams (2003) assert that the impact of this type of institutional support on faculty awareness and actual use of educational technologies in the classroom greatly heightens the use of such technologies promoting differentiated teaching methods. Added to this support, Glenn & Ryan (2004) state that colleges that offer first-year seminar courses, such as an academic-socialization model based around an academic theme, garner greater cohesiveness between teachers and students.

Technology allows users not only to do things differently, but to do different things. For educators, teaching and learning with technology means it is no longer necessary to take the traditional lecture approach to instruction. Access to technology by students can allow educators to distribute responsibility for learning to the students rather than focus control in the hands of the teacher. This fundamentally alters the roles and responsibilities for both the learner and the instructor. However, Jukes (1996) warns that this is easier said than done. Jukes, states that for many educators, moving beyond traditional instructional mindsets represents a significant intellectual challenge and requires a tremendous leap of faith.

Retention

Successful two-year colleges must not only accurately identify but also satisfy their primary customers, the students. Successful college leaders are constantly thinking of ways and means of keeping students happy and satisfied, especially with the knowledge that students leave for many other reasons that are beyond the control of the college (Noel-Levitz, 2006). Colleges waste hundreds of thousands to millions of dollars each year as a result of attrition (Jones, 1986). Jones also states that though there is agreement about the characteristics of attrition, there is little agreement about what should be done.

Various researchers have acknowledged four basic areas that lead to student retention, attrition, and persistence. Bank, Biddle and Slavings (1992), state that *sociological* aspects are those factors that focus on the influence of various social forces on college students' departure or withdrawal. *Organizational* perspectives, as outlined by Owusu (2006), are those that focus on the influences of the organizations characteristics and processes and how they affect student departure or withdrawal. Wetzel, O'Toole, and Peterson (1999) describe *economic* perspectives are those that focus on the influence of cost/benefit analysis

on college students decisions to persist or depart. Finally, Braxton (2000) outlines *psychological* perspectives that focus on the psychological characteristics and processes on college student departure (pp.260-263).

Once students begin at a college, in much the same way that customers begin to frequent a business, factors that promote retention must be addressed. Though satisfaction and retention are not equals, factors that promote satisfaction quite possibly add to retention. Researchers (Abowitz and Knox, 2003; and Mervis, 2001) have shown that students will have a greater sense of satisfaction and persist at a college when the goals and aspirations of the college are similar to those of the student.

New students, whether classified as traditional or non-traditional, must feel a sense of satisfaction and belonging beginning with their initial encounters with a college. This includes pre-visit contact with an admissions office staff person via phone or email, printed materials about the college, or other areas in which students can look for similarities between the college and themselves and can be a crucial factor in developing students' expectations of the institution and in their adjustment to college environments. Even though these factors have been proven, Bean and Metzner (1985) feel that "the most important (retention) variables are likely to differ for subgroups such as: older students, part-time students, ethnic minorities, women, or academically under-prepared students at different types of institutions" (p 529).

Walleri (1996) stated that retention can best be described in terms of program completion. He also concludes that for some students in special programs at community colleges, like single-class courses, retention can only be defined only in terms of student objectives. Ho (2005) updated this definition by describing a continuance until goal

completion but not to be considered attrition. Ho states that though not a direct opposite, attrition refers to the withdrawal by students from diploma/certificate/applied degree programs prior to completion or graduation.

Much like retention, attrition has many definitions. For example, those students who transfer to another program within the college or to another college and complete their degree are not tracked and counted as graduates when they complete their new program though they are successful leavers when they depart the initial college. Donner and Lazar (2000) suggest a system to identify the successful from the unsuccessful leavers in a national database, if for nothing more than tracking purposes. Marinaccio (1985) concurred over two decades ago that while there will be some retention strategies that will work for students in many institutions, the reasons for attrition are complex and individually student-based and, therefore, must be viewed in the local college's own context. Students, institutions, businesses, and communities benefit from finding ways to lower attrition and improve student retention within the institutions.

Sharma (1998), states that retention can be described in terms of institutional courses and programs along with individual student attributes. *Course retention* indicates the number of students who enrolled in a class compared to the number who completed the class. *Program retention/attrition* deals with the traditional full-time student and ascertains whether or not the student has graduated in the program in which he/she enrolled for the duration. *Student retention/attrition* pertains to whether or not the student attained his/her academic and/or personal goals at exit.

Lewis (2006) states that studies in several industries have shown that the cost of retaining an existing customer is only about 10% of the cost of acquiring a new customer.

Researchers concluded that traditional business marketers spend far too much on customer acquisition and far too little on customer retention while the increased profitability associated with customer retention efforts occurs because the costs of acquisition occur only at the beginning of a relationship, so the longer the relationship, the lower the amortized cost (Sanders & Burton, 1996).

The cost effectiveness of focusing on student retention as an enrollment management strategy has been researched by Astin (1975), who states,

In four-year institutions, any change that deters students from dropping out can affect three classes of students at once, whereas any change in recruiting practices can affect only one class in a given year. He continues: From this viewpoint, investing resources to prevent dropping out may be more cost effective than applying the same resources to more vigorous recruitment' (p 2).

These facts may be argued to be applicable for two-year colleges as well. Over two decades ago, Kramer (2005) stated that cost-benefit analyses of student recruitment efforts, which require substantial institutional expenditures (e.g., hiring of staff, travel funding, and marketing costs), are in the range of \$200-\$800 per student.

In contrast, retention initiatives designed to manage student enrollment are estimated to be 3-5 times more cost-effective than recruitment efforts; i.e., the cost of recruiting one new student to college approximates the cost of retaining 3-5 already enrolled students (Noel-Levitz, 2006). Accordingly, by stating that a college that gains a student replaces one who has quit, for whatever reason, is a gross understatement. Jones (2004) notes, that at-risk students and their subsequent attrition have a substantial impact on both colleges and society

in general. More specifically, they describe areas that retention affects the greatest: (a) funding, (b) facilities, and (c) academic courses offered.

Terenzini and Pascarella (1978) suggest that "the academic and social correlates of attrition may be different for different kinds of students" (p 364). The authors reinforce the fact by stating that interactions with other college students and college employees are the single leading predictor of college attrition. The authors also state that the interaction must happen in other areas of the college – beyond the classroom as well as off campus in social situations – in order for students to feel as though they are part of the organization.

Retention and Non-Traditional Students

Friedman (1993) states that full-time students who attend college and are not employed and do not have a family are more likely to remain in college than those who attend college on a part-time basis. Some studies show that younger students are more likely to withdraw from college while other studies find that older students are more likely to drop out, and still other studies found no relationship between age and retention (Ho, 2005 & Mervis, 2001). In regards to two-year colleges, other researchers find conflicting results for gender, marital status, and age (Bean & Metzner, 1985 Huston-Hoburg & Strange, 1986). For two-year colleges, other researchers find conflicting results for gender, marital status, and age (Bean & Metzner, 1985 Huston-Hoburg & Strange, 1986).

Jones (2004) found that student attrition rates were based on many factors other than simply academics. When colleges try to attribute low retention rates to a single variable, efforts usually fail as findings suggest that a number of factors usually affect a student's decision to quit. Two-year college students are up to four times more likely to quit school for

reasons that have nothing to do with academics than for reasons associated with academics.

Jones states:

Since literature findings state that students at community colleges are four times more likely to leave school due to non-academic reasons than for academic reasons, a major challenge for two-year colleges is in recruitment to increase the number of first-time students and retention schemes for returning students (re-enrollment) without establishing costly, labor-intensive programs (p.15).

In doing so, colleges can add to the satisfaction to students' tenure, thereby increasing retention efforts. In the report *The Condition of Education 2003*, it is stated that in 1999-2000, nearly 70 percent of community college students attended part-time and more than 53 percent of students worked full-time. Also stated in the report, nearly 44 percent of community college students left college without a credential within three years of entering while some students were not seeking a credential from the beginning.

In looking at the circumstances under which students decide to withdraw, Christie, Monroe, & Fisher (2004) state there are widespread and similar financial difficulties among students who continue in college and those who withdraw, suggesting that it is more useful to look at the points at which similar pressures seem bearable for one student but not for another. Their research indicates that important factors in the decision to withdraw, either before goal attainment or graduation, include poor choice of courses, limited social support networks, and lack of 'fit' between student and institution – not factors such as socioeconomic variables. Moreover, Thornton's (2005) study polled incoming students about issues that could prevent their attendance, like transportation and day care. “There's no significant

difference in success based on class times or days or any other factors to be found," (p.51).

These results seem to indicate that students' success is influenced more by individual motivations and are more personal in nature. Thornton's study shows that factors such as stable child care support from family members and peers, and college faculty and staff relationships, along with accommodating employers for students who are employed, are leading factors influencing students' ability to stay in college and to complete their goals.

Retention Factors

Although several theories have been advanced to explain the college persistence process (Spady, 1970; Tinto, 1975; Pascarella, 1980; Bean, 1981; & Bean, 1982), only two theories have provided a comprehensive framework on college departure decisions. These two theoretical frameworks are Tinto's (1975) Student Integration Model and Bean's (1985) Student Attrition Model. A review of the literature indicates that the Student Integration Model, for instance, has prompted a steady line of research expanding over a decade (Pascarella, 1983; Stage, 1988; Nora, 1987; & Cabrera, Castaneda, Nora, and Hengstler, 1992). Thus, more research on factors that influence students to choose a two-year college, attributes that lead to or dissuade student satisfaction, and a retention model that incorporates the students' perspectives of the college experience needs to be formulated. As Levitz, Noel, and Richter (1999) acknowledge:

Student retention is the primary gauge for collectively assessing the success - defined much more broadly than just academic success - of students, and therefore the institution. Retention, then, is not the primary goal, but it is the best indicator that an institution is meeting its goal of student satisfaction and success (p 31).

Academic factors may include items such as college-preparedness measures in English, mathematics, reading, and science along with high school grade point average or credits earned from all high school courses. Non-academic factors may include the level of commitment to obtain a college degree, the level of motivation to achieve success and the level of academic self-confidence of being successful in the academic environment. These academic factors may assume that a student's academic competence in such areas as reading, writing, and mathematics is related to retention. Various researchers (Bean, 1982; Fletcher, 1998; and Ishitani & DesJardins, 2002) state that the higher a student's academic competence, the better the performance and the greater the chances of the student's persisting in school.

Performance and attrition factors are also influenced by non-academic factors, such as student's self-confidence in previous academic work, motivation to achieve, institutional commitment, and peer and social support. Researchers Robbins et al (2003) and Covington (2000) suggest motivational theories correlate with community college students' academic achievement. Grants, such as the College Completion Challenge Grants, are based upon retention and support the development of student services activities that introduce incoming first-year students to college life and provide learning support classes, peer tutoring, faculty or peer mentoring, and activities to secure financial assistance and assistance with course selection (Dervarics & Roach, 2000). The researchers also state that these grants are aimed primarily at two-year colleges to serve high-risk, minority, first-generation, and low-income students.

Retention Strategies

Successful retention programs must include a comprehensive background information database that includes students' needs and the factors that affect retention as retention affects the entire campus community as well as everyone involved in and employed by the institution. Braxton et al (2004) feel that because of this, all members of the college community need to be committed to the welfare of the student and have a stake in the success of policies and practices that reduce attrition. Karp & Logue (2002) assert that the design, development, and implementation of a successful retention programs must encompass the areas of need and desires of students while taking into consideration the resources available. Strategies, they say, must include setting priorities, executing plans, having a continuous and ongoing process, and making program modifications as warranted (Pathways to College Network, 2004).

Underwood (1991) asserts that two-year college administrators feel that measuring student satisfaction is paramount, while McLaughlin, Brozovsky, and McLaughlin (1998) feel that retention and retention measures are often not included in strategic plans and missions. If an institution wishes to increase its success rate with student recruitment, retention, and completion, quality of life must be a part of the total review forum when students are enrolled and as students are counseled. Forde (2005) states that quality of life is the cumulative effect of multiple intervening variables, voluntary and involuntary, selected and imposed, in an individual's life. These variables include aspects of educational, sociological, cultural, and economic factors. An understanding of the student's quality of life helps with retention and with successful accomplishment of student goals. Institutional

behaviors inconsistent with student expectations may lead to students dropping out. Matching institutional and student objectives promotes coping skills and leads to resiliency (Forde).

Holmes et al (2000) state that, according to continuous improvement practices, the entire campus, including internal and external boards, must be involved in a comprehensive effort to develop and maintain retention programs that address both academic and non-academic factors in a meaningful manner. Other areas of the institution play a vital role in a student's satisfaction level as well like other academic services, bookstore and library personnel, maintenance, custodial and other support staff members. Summers (2004) states:

Whether student attrition is viewed as an institutional effectiveness issue, a financial issue, or an enrollment management issue, it continues to be a challenge for community colleges. Many institutions' primary strategy for reducing attrition is the early identification of students likely to drop out and the development and implementation of intervention services for those students, (p.64).

To be effective, retention strategies may need to focus on students' long-term benefits for remaining in college and goal attainment while addressing the institutions' varied needs for sustained and increased enrollment, retention, and completion. The limited number of studies, and their sometimes conflicting results, add to the need for more comprehensive studies that include students and their perceptions. Just as the composition of community-college students is constantly changing, colleges' retention models and programs must change as well and include both academic and non-academic variables. Summers concludes his research paper by stating:

Researchers have typically investigated community college student attrition by focusing on student characteristics, environmental factors, and academic

variables. However, many of these studies have resulted in mixed findings; more research is needed to understand better influences and predictors of student attrition and the strategies that may affect its reduction (p. 80).

Summary

The growth of community and technical college enrollments is expected to continue to outpace enrollments in public four-year colleges and universities mainly because many four-year colleges are becoming increasingly selective in an effort to improve the academic quality of their incoming students. Service market industries continue to flourish and a growth in certification programs and workforce training classes will continue to boost enrollments in community colleges. As training centers, community colleges draw on this substantial foundation, which is supported by faculty and staff who are well prepared to provide instruction to non-traditional students (Phillippe, 2000). These colleges also draw on strong relationships with other educators, professionals, and trainers throughout the communities and use them as adjunct faculty members. Jacob (1998) points out those community college faculty members conceptualize their roles primarily as teacher and facilitator, unlike four-year and university professors, and are less interested in research and committee participation.

This research will be unique by focusing beyond these three fundamental factors that are external and arguably uncontrollable by an institution. The researcher will conduct a study that is based upon technical college students' level of satisfaction with internal— institutional--factors in the midst of the institution in an attempt to reduce attrition and boost retention rates within Georgia's technical college system.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to examine the relationship of the students' identification of importance and satisfaction with institutional factors of Georgia's technical colleges. Administrators must continue to seek ways to enhance enrollment while retaining current students. Within the technical college system, federal and state funding, initiatives, and grants are dependent upon the overall enrollment status. As a practical choice of post-secondary education, two-year college administrators must continually address enrollment concerns as the colleges receive a portion of state funds through formulas that are based on enrollments. Coupled with enrollment issues, researchers state that colleges must also focus upon current student attitudes, satisfaction, and persistence to ensure students are content with the institution and continue their enrollment (Cross, 1981; Horn, 1996).

The intent of this study was to understand the extent of perceptions of technical college students relative to a broad range of aspects of their educational experience on the college campus. In addition, this research examined the extent to which four nontraditional student characteristics, including full-time employment status, part-time enrollment status, dependent caregiver responsibilities, and delayed enrollment status, were related to perceived importance of and satisfaction with a wide range of concerns impacting their educational experience at the two-year technical colleges. This wide range of concerns includes the twelve institutional factors of: academic advising and counseling effectiveness; academic services; admissions and financial aid; campus climate; campus support services; concern for the individual; instructional effectiveness; registration effectiveness; responsiveness to

diverse populations; safety and security; service excellence; and student-centeredness. Significant differences in perceptions of satisfaction in these areas of interest relative to the degree that students exhibited these nontraditional characteristics will be explored.

The chapter includes a description of the research questions, research design and methodology, population, participants, instrumentation with validation, data collection, response rates and justification, data analysis, data reporting and a summary. A Human Subjects Institutional Review Board approval of the study is included in this chapter.

Research Questions

The overarching question for this research was what is the extent of the differences between students' importance of and satisfaction with institutional factors within Georgia's technical colleges? The researcher utilized the following questions to guide the study.

1. To what extent is each of the twelve institutional factors important to students?
2. To what extent are students satisfied with each of the twelve institutional factors?
3. To what extent do satisfaction and importance differ with the twelve institutional factors?
4. To what extent to importance and satisfaction vary by different characteristics of non-traditional students?
5. How do students with different backgrounds explain importance and satisfaction concerning institutional factors?

Research Design

In order to answer the research questions, the investigator employed a mixed method approach of quantitative and qualitative analysis. The primary reason for conducting the quantitative research was to learn how many people in a population share particular

characteristics or like a particular idea. It is specifically designed to produce accurate and reliable measurements that permit statistical analysis. A portion of this research was descriptive, non-experimental research approach employing a correlational survey design which, according to Ary, Jacobs, and Razavieh (2002), identifies variables and looks for relationships between them. The quantitative techniques cannot answer the question of what is causing what (Dobbin, & Gatowski, 1999). Because of this fact, a qualitative approach was used in an attempt to explain students' levels of satisfaction with the areas individual factors that are controlled by an institution.

Johnson (2000) explained that studies can usefully be classified as descriptive non-experimental research when the researcher's primary objective is descriptive, that is, the researcher is primarily describing the phenomena and documenting the characteristics of the phenomena (with no manipulation). The purpose of such instrumentation is to collect data from a sample which is selected to represent a population for which the findings can be generalized and from this; a portion of this research will be qualitative in design.

The quantitative data was gathered, analyzed, and placed into text and tabular form for discussion. Since raw data has little to no power since the question of "why" students feel a particular way is not addressed; a qualitative method of investigation was also be used. In analyzing the quantitative data, evidence is portrayed that documents institutional variables that students feel are important but they—the students—are not satisfied.

A quantitative method that focuses on secondary data was chosen for this research as the purposes of quantitative analysis is that of theory testing, prediction, and establishing facts. Quantitative research is based primarily on deductive forms of logic, and theories and hypotheses are tested in a cause-effect order. The goal was to develop generalizations that

contribute to theory that enable the researcher to predict, explain, and understand some phenomenon. The causal direction in a theory, or which variable is independent and which is dependent, is completely a theoretical and conceptual problem.

A qualitative aspect was used as well to assist in explaining the quantitative data. The feedback in discussion groups can provide the direction that the institution needs in order to resolve and improve the situations. The researcher was careful about assuming that he knew what students meant when a particular issue was identified in the quantitative analysis. Focus group discussions guided by satisfaction assessment data can provide prevailing insights. The researcher had confidence that the students were discussing the areas that matter most to the majority of the students, while the focus groups addressed specific issues, as opposed to becoming a general gripe session.

Population

The population of the study comes from the Noel-Levitz Satisfaction-Priorities Surveys that have been taken by more than 2,000,000 students, giving access to exceptionally valid and varied national benchmarks. In 2005, the Student Satisfaction Inventory (SSI) was administered to more than 675,000 students from more than 860 four-year and two-year, public, and private institutions across North America. From this total, approximately 125,000 of these students were from community, junior, and technical colleges.

Participants

The Noel-Levitz website list results from all community, junior, and technical colleges that administered the instrument in 2005. In Georgia, 16 technical colleges participated in the survey in 2005. From these 16 institutions, 13,782 students completed the survey. The researcher sent an email request to the Noel-Levitz website email address on

January 18, 2006 requesting a possible means to run a statistical analysis that includes only Georgia's technical colleges. A return email from a company representative stated that the Noel-Levitz company could run a Georgia Technical College specialized group report vs. the 2 year public data that they had on file for fee. The report included the mean averages of satisfaction and importance and combined demographic information for 16 of the 34 two-year institutions. The institutions are named in Table 1.

Table 1

List of Georgia Technical Colleges taking part in 2005 Survey

College	
Appalachian Technical College	Heart of Georgia Technical College
Athens Technical College	North Georgia Technical College
Augusta Technical College	Northwestern Technical College
Central Georgia Technical College	Ogeechee Technical College
Chattahoochee Technical College	Okefenokee Technical College
Coosa Valley Technical College	Savannah Technical College
East Central Technical College	Sandersville Technical College
Gwinnett Technical College	West Georgia Technical College

Note: Source. Noel-Levitz Student Survey Inventory

The Department of Technical and Adult education groups the technical colleges into six consortia. At least one of the 16 institutions that participated in performing the survey is in each of the consortia groups, which means that the institutions included in the study represent the state of Georgia. On January 19, 2006, the researcher received the report from

the Noel-Levitz company that was used for this study. The report was multi-faceted and allowed the researcher to study the data for each of the 12 variables and then rank these variables by importance, satisfaction, or by the differences of these two scales, which are referred to as gaps.

The researcher, for purposes of this study, ordered five subsets of data that parallel Horn's (1996) definition of nontraditional students. These characteristics include: delays enrollment (does not enter postsecondary education in the same calendar year that he or she finished high school); attends part-time for at least part of the academic year; works full-time (35 hours or more per week) while enrolled in coursework; is considered financially independent for purposes of determining eligibility for financial aid—does not live with parents; does not have a high school diploma (student either completed high school with a GED or other high school completion certificate or did not finish high school at all); carries the responsibilities for dependents other than a spouse (usually children, but can sometimes include others); or is a single parent (either not married or married but separated and has dependents).

The five data sets obtained that match the criteria included in the demographic profiles of: 2987 students from the ages of 25-34 and 1827 students from the ages of 35-44 years (total 4714 representing delayed enrollment); 4206 students who are employed full-time; 3859 students who attend at least part time; and 4430 respondents categorized as a student as independent caregiver (not living in parent's home). These demographic factors parallel Horn's definition of nontraditional student.

To add to the data analysis, the researcher conducted two focus-group discussions. In doing so, the researcher interacted with participants and collected data from face-to-face

from the focus groups. These groups were comprised of students who took the Noel-Levitz Student Satisfaction Inventory (SSI) in 2005 at a technical college in Georgia. There were two focus groups and each was comprised of 5 students who represented the demographic profiles of nontraditional students which included five male and five female, all over the age of 25, four attending part-time, six attending full-time, seven working part-time and 3 working full time.

Instrumentation

The primary information used was a compilation of data that was derived from the Noel-Levitz Student Satisfaction Inventory survey. The data is considered a secondary data as the data were collected originally for a purpose other than the current study.

The Student Satisfaction Inventory (SSI) instrument measures student satisfaction and priorities, showing how satisfied students are as well as what issues are important to them. Colleges use the results of this data to: (1) guide strategic action planning; (2) strengthen student retention initiatives; (3) meet accreditation requirements; (4) identify areas of strength for institutional marketing; and (5) assist in charting institutional progress toward campus goals. The instrument was developed by the Noel-Levitz (Noel-Levitz, 2006) company and is formulated to target and focus upon, community/junior/technical colleges. The results from the community/junior/technical colleges were used for this research.

In using the Noel-Levitz Student Satisfaction Inventory, students rated 70 items in the inventory by two different criteria: the Importance of the specific expectation as well as their Satisfaction with how well that expectation is being met. A copy of the 70 question survey is located in Appendix A. A performance gap was then determined by the difference in the importance rating and the satisfaction rating. Items with large performance gaps indicate

areas on campus where students perceive their expectations are not being met adequately. Students also answered up to 15 questions that an individual school may include concerning school-specific information. This information was not be used in this research as each question pertained to specific areas of the institution that was being surveyed and was not used by Noel-Levitz in any statistical analysis. The participants also answered 15 questions of a demographic nature ranging from overall college experiences, class level and GPA to typical gender, age, and employment data. This information is reported in a demographics section of the data

Because the Student Satisfaction Inventory results in three different scores for each item, a significant amount of information is generated for institutional decision makers. Importance score ratings reflect how strongly students feel about the expectation (the higher the score, the more important it is to a student, hence the stronger the expectation). Satisfaction ratings indicate how satisfied students were in their institution, meeting the expectation (the higher the score, the more satisfied the student). Performance gap scores (importance rating minus satisfaction rating) indicate how well the institution is meeting the expectation overall. A large performance gap score for an item (e.g., 1.5) indicates that the institution is not meeting students' expectations, whereas a small or zero gap score (e.g., .50) indicates that an institution is meeting students' expectations, and a negative gap score (e.g., -.25) indicates that an institution is exceeding students' expectations (Noel-Levitz, 2006).

In addition to the information provided by the three measurements for each item, inventory composite scales offer a "global" perspective of students' responses. The scales provide an overview of an institution's strengths and areas in need of improvement. The instrument utilizes 2, 7-point Likert scales for gathering data. The first, the Importance scale

concerning a student's perceptions on particular items, uses a Likert scale ranging from 1-7, with 1 = *not important at all*, 2=*not very important*, 3=*somewhat important*,4= *neutral*, 5=*somewhat important*,6= *important*, and 7= *very important*. It is important to note that in an effort to relieve some tendency of skewing, an item is placed in the scale so that a respondent may choose to mark if the statement does not apply. On the other side of the instrument, the second set of scales uses a 7-point Likert scale for gathering data. The Satisfaction scale, concerning a student's perceptions on particular items, uses a Likert scale ranging from 1-7, with 1= *not satisfied at all*, 2=*not very satisfied*, 3=*somewhat dissatisfied*,4= *neutral*, 5=*somewhat satisfied*,6= *satisfied*, and 7=*very satisfied*. It is important to note that that in an effort to relieve some tendency of skewing, an item is placed in the scale so that a respondent may choose to mark if the statement does not apply.

Noel-Levitz Student Satisfaction Inventory

The Student Satisfaction Inventory collects student feedback on over 100 items. Included are:

- 70 items of expectation for community, junior and technical colleges
- 10 optional items defined by the institution
- 6 items that assess the institution's commitment to specific student populations
- 9 items that assess pre-enrollment factors
- 15 demographic items that identify demographic characteristics of respondents

For the purpose of this study, the 70 items of expectation for community, junior and technical colleges and the 15 demographic items that identify demographic characteristics of respondents were used. The survey items consisted of the research questions (see Table 2).

Table 2

Table of Analysis

Survey Items	Literature	Research Questions Attempting to Answer
<p>Academic Advising Effectiveness (also called Academic Advising and Counseling Effectiveness) assesses the academic advising program, evaluating advisors and counselors on their knowledge, competence, approachability, and personal concern for students. Items in this factor are 6, 12, 25, 32, 40, 48, and 52.</p>	<p>Quereshi (1988), Benshoff & Spruill (2000), Lunneborg (1986), Walker et al. (1987), Ware et al. (1993), Nelson (1997), Sun (1997), Palmer (1988), Palmer (1998), Colton, Colton,& Shultz (2001),</p>	<p>Research questions 1,2,3,4,5</p>
<p>Campus Climate evaluates how the institution promotes a sense of campus pride and belonging. Items in this factor are 1,2, 16, 22, 27, 28, 31, 36, 44, 45, 52, 57, 59, 63, and 67.</p>	<p>Stefani, Bjorklund, Cabrera, Colbeck, Parente & Terenzini (2001), Griffith (1994), Hess, Kerssen-Griep (2003), Rifkind (2003), Rossi & Royal (1999), Tanaka (2002), Strauss & Volkwein (2004), Lau (2004), Coll & Stewart (2003).</p>	<p>Research questions 1,2,3,4,5</p>
<p>Campus Support Services assesses the quality of support programs and services. Items in this factor include 10, 17, 19, 30, 38, 47, and 59.</p>	<p>Titley & Titley (1987), Deneui (2003), Deberard, Julka, & Spielmans, (2004), Perez (1998), Clark, Sawyer & Severy (2004), Hagie, Kuo, & Miller (2004), Archer & Cooper (2002), Pope (2002), Towns (1997), Phillips-Miller & Morrison (1999),</p>	<p>Research questions 1,2,3,4,5</p>
<p>Concern for the Individual assesses your commitment to treating each student as an individual. This assessment includes groups who deal</p>	<p>Papo, (1999), Benshoff & Spruill (2000), Koon & Murray (1995), Shoffner & Williamson (2000), Renn (2000), Brunot, Huguet, &</p>	<p>Research questions 1,2,3,4,5</p>

personally with students (e.g., faculty, advisors, counselors, and staff. Items in this factor are 2, 16, 25, 29, and 48.	Monteil (1996), Weiss (2002),	
Instructional Effectiveness measures students' academic experiences, the curriculum, and the campus's commitment to academic excellence. Items in this factor are 2, 18, 23, 29, 37, 46, 54, 58, 61, 64, 65, 66, 69, and 70.	Williams (1993), Raphelson(1987), Sun (1997), Finley, Miller, & Vancko (2000), Wiest, Wong, & Woodside (1999), Mathews (1996), Bargh & Schul (1980), Koon & Murray (1995),	Research questions 1,2,3,4,5
Admissions and Financial Aid Effectiveness measures the competence of admissions counselors, along with students' perceptions of the financial aid programs. Items in this factor are 7, 13, 20, 33, 41, and 49.	Cuccaro-Alamin & Choy (1998), Clark, Sawyer & Severy (2004), Manuanane-Drechsel & Hagedorn (2000), Rose & Sorensen (1992),	Research questions 1,2,3,4,5
Registration Effectiveness assesses registration and billing, including how smooth the registration process is. Items in this factor are 5, 8, 15, 35, 43, 51, 56, 60, and 62.	Carnegie Mellon (1999), Bers & Galowich (2002), Bitler, Rankin, & Schrass (2000), Reeves, (2001),	Research questions 1,2,3,4,5
Responsiveness to Diverse Populations assesses the institution's commitment to specific groups of students enrolled at the institution (e.g., under-represented populations, students with disabilities, commuters, part-time students, and adult learners). Items in this factor are 81, 82, 83, 84, 85, and 86.	McGovern & Hawks (1986), Dodd, Gary, & Kling (2004), Callahan, Eiss, Imbeau, Landrum, Tomchin, & Tomlinson (1997), Burriskitchen, Der-Karabetian, & Morrow (2000), Borkowski (1988), Phillips (2005), Gay (1997), Kirby & Sharpe (2001), Bulakowski, Jumisko, & Weissman (1998),	Research questions 1,2,3,4,5

<p>Safety and Security measures the campus' responsiveness to students' personal safety and security. Items in this factor are 4, 11, 24, 31, and 39.</p>	<p>Shearing & Wood (1998), Dufresne (2005), Caruso, Goins, Lee, & Southerland (2003),</p>	<p>Research questions 1,2,3,4,5</p>
<p>Service Excellence measures quality of service and personal concern for students in various areas of campus. Items in this factor are 5, 23, 26, 27, 44, 57, 62, 63, and 67.</p>	<p>Williams (1993), Sheldon, C., (2003), Stone & Wehlage(1996), Wehlage & White (1996),</p>	<p>Research questions 1,2,3,4,5</p>
<p>Student Centeredness measures the institution's attitude toward students and the extent to which they feel welcome and valued. Items in this factor are 2, 16, 27, 36, and 57.</p>	<p>Papo, (1999), Bui (2002), Pratt & Skaggs (1989), Heisserer & Parette (2002), Chickering & Gamson (1987), Grupe (2002), Hess, Kerssen-Griep (2003), Hillman, & Thibodeau, (2003), Beatty-Guenter (1994), Maxwell (1998), Napoli, & Wortman (1998), Tinto (1997), Kuh, (1995), Rivard (2001)</p>	<p>Research questions 1,2,3,4,5</p>
<p>Academic Services assesses services that students utilize to achieve their academic goals, such as the library, computer labs, tutoring, and study areas. Items in this factor are 14, 21, 26, 34, 42, 50, and 55.</p>	<p>Williams (1993), Crowell & Williams (1993), Holbrook (1981), Glenn & Ryan (2004), Creemers, Reynolds, Schaffer, Stringfield,& Teddlie (2002), Barnard (1997),</p>	<p>Research questions 1,2,3,4,5</p>

The Variables

For the community, junior and technical college version of the inventory, 70 items of expectations and 15 demographic items that identify demographic characteristics of respondents were used and are analyzed statistically and conceptually to provide the

following 12 composite scales, or factors, as outlined in Table 3. These 12 factors were used to further identify the institutional factors that are to be measured.

Table 3

Noel-Levitz Student Satisfaction Inventory

Scale	Description
Academic Advising and Counseling Effectiveness	Assesses the comprehensiveness of the institution's academic advising program.
Academic Services	Assesses services students utilize to achieve their academic goals such as the library and computer labs.
Admissions and Financial Aid Effectiveness	Assesses an institution's ability to enroll students in an effective manner.
Campus Climate	Assesses the extent to which an institution provides experiences that promote a sense of campus pride and feelings of belonging.
Campus Support Services	Assesses the quality of the support programs and services which students utilize to make their educational experiences more meaningful and productive.
Concern for the Individual	Assesses an institution's commitment to treating each student as an individual.
Instructional Effectiveness	Assesses the students' academic experience, the curriculum, and the campus's overriding commitment to academic excellence.
Registration Effectiveness	Assesses issues associated with registration and billing.
Responsiveness to Diverse Populations	Assesses an institution's commitment to specific groups of students enrolled at an institution.
Safety and Security	Assesses the institution's responsiveness to students' personal safety and security on the campus.

Note. Source: Noel-Levitz Student Satisfaction Inventory Questionnaire

A literature review of the 12 factors added to the depth and importance of each of the factors.

Focus Groups

For a deeper understanding of the data prioritized in the Noel-Levitz surveys, the researcher included discussions with two focus-groups. In doing so, the researcher interacted with participants and collected data face-to-face from participants. These groups were picked by the researcher and comprised of students who took the Noel-Levitz Student Satisfaction Inventory (SSI) in 2005 at a technical in Georgia. These focus groups were made of students who represented the demographic profiles of nontraditional students and possessed such characteristics as having delayed their enrollment (did not enter postsecondary education in the same calendar year that he or she finished high school); attends part-time for at least part of the academic year; works full-time (35 hours or more per week) while enrolled in coursework; and is considered financially independent for purposes of determining eligibility for financial aid—does not live with parents.

The focus group discussions were formed around the 12 Factors from the Student Satisfaction Inventory. The major topics were based upon the institutional variables that the population identified as ranking high in importance to the students but ranked low in satisfaction which culminated in themes and trends. Focus groups are a form of group interviewing but it is important to distinguish between the two. Group interviewing involves interviewing a number of people at the same time, the emphasis being on questions and responses between the researcher and participants. Focus groups however rely on interaction within the group based on topics that are supplied by the researcher (Morgan, 1997). Morgan also states that focus groups are excellent forms of data collection after a program has been completed, to assess its impact or to generate further avenues of research. Focus groups can

be used either as a method in their own right or as a complement to other methods, especially for triangulation and validity checking.

Focus groups are however limited in terms of their ability to generalize findings to a whole population, mainly because of the small numbers of people participating and the likelihood that the participants will not be a representative sample (Kitzinger, 1996). The researcher allowed participants to talk to each other, ask questions and express doubts and opinions, while having very little control over the interaction other than generally keeping participants focused on the topic. By its nature, focus group research is open ended and cannot be entirely predetermined and it should not be assumed that the individuals in a focus group are expressing their own definitive individual view. Goss and Leinbach (1996) point out the fact that participants are speaking in a specific context, within a specific culture and because of this; it may be difficult at times for the researcher to clearly identify an individual message.

Focus Group Discussions

The differences in importance and satisfaction—termed “Gaps” by the Noel-Levitz instrument—were the basis of the focus-group discussion. The group session was essentially a qualitative data gathering technique that had the moderator directing the interaction and inquiry in a very structured environment allowing the researcher to make general statements about a topic. The topics discussed were based upon data from research questions 1-4. The researcher posed open-ended thoughts and questions and allowed students to talk about the factors that interested them. The researcher remained cognizant of the fact not to bias the discussion in any fashion and commented only as a means to progress the conversations. The

major themes that arose were in the student services area of the institution and items of concern with the faculty.

Reliability and Validity

The Student Satisfaction Inventory is a reliable instrument. According to the Noel-Levitz company, both the two-year and four-year versions of the SSI show exceptionally high internal reliability. Cronbach's coefficient alpha is .97 for the set of importance scores and is .98 for the set of satisfaction scores. It also demonstrates good score reliability over time; the three-week, test-retest reliability coefficient is .85 for importance scores and .84 for satisfaction scores (Noel-Levitz, 2006).

Noel-Levitz provided evidence to the validity of the Student Satisfaction Inventory. Convergent validity was assessed by correlating satisfaction scores from the SSI with satisfaction scores from the College Student Satisfaction Questionnaire (CSSQ), another statistically reliable satisfaction instrument. The Pearson correlation between these two instruments ($r=.71$; $p<.00001$) is high enough to indicate that the SSI's satisfaction scores measure the same satisfaction construct as the CSSQ's scores, and yet the correlation is low enough to indicate that there are distinct differences between the two instruments (Noel-Levitz, 2006).

The Student Satisfaction Inventory was used for this study because it offered the added benefit of measuring students' sense of importance (expectations) of campus environmental factors as well as their satisfaction of experience with them. Comparing the students' ratings of the importance (expectations) and their satisfaction identifies "performance gaps" for each standardized item and eleven scales of the Inventory. Normative data from two-year public institutions about the importance, satisfaction, and

performance gaps for the standardized items and eleven scales are also provided. In addition, student satisfaction about the colleges' and four-year public institutions' responsiveness to diverse populations (twelfth scale) is also reported.

The SSI is a nationally normed instrument whose purpose is to measure student satisfaction on a range of college experiences. The SSI complements focus group work, in that it confirms both strengths and priorities for change. The SSI provides the larger, overall experience of students on campus and the focus groups fill in specific details, comments and anecdotes.

The SSI calculates “satisfaction” based upon the disparity between importance to students of a set of programs and services and how well those programs and services are meeting students’ expectations. Thus, there are three scores for each of the inventory items: an importance score, designed to measure the strength of a student’s expectations; a satisfaction score, designed to measure the student’s actual experience on campus; and a performance gap score – the discrepancy between the importance and satisfaction scores. By examining these “performance gaps,” it is possible to put student satisfaction within the context of expectations. A copy of the survey can be found in Appendix B.

For the focus group topics validity, the agenda was developed by the researcher based upon the review of literature, published instruments, and the themes that emerged from an analysis of the responses to the survey questions. Specifically, the gaps between items that students feel are important but they are not satisfied with was the major source of discussion group topics. A matrix of reviewed literature is in Exhibit 1. The agenda was comprised of 5 themes that were used to determine student attitudes concerning several aspects of their satisfaction with the institutional factors of the college. The group members were given the

opportunity to review their transcribed comments and the profiles and other sections of the project report that were based on them as soon as they were available. This gave the participants a chance to catch any errors in the material and to express their opinion as to whether the report accurately captured what they were trying to say. The students expressed confidence that their transcripts and profiles were accurate and this increased the confidence levels of the survey.

Data Collection

The researcher used a data set developed from an administration of the Student Satisfaction Inventory by Noel-Levitz. Typically, students need approximately 30 minutes to complete the paper-and-pencil Student Satisfaction Inventory survey. The Web versions of these surveys take approximately 20 minutes to complete. There are four common approaches to administering the Student Satisfaction Inventory with the most common and reliable method is to ask faculty to have students complete the inventory during a regular class period. Typical response rates range from 75-100 percent depending on class attendance and faculty participation (Noel-Levitz, 2006). All completed inventories are sent to Noel-Levitz at their Iowa City address. Scores are tabulated and scored results are then shipped approximately 12-15 business days after receipt of the completed inventories.

For this research, 16 Georgia technical colleges participated in the survey in 2005. From these 16 institutions, 13,782 students completed the survey. Each institution sent their completed surveys to the Noel-Levitz who ran the statistical analysis on the raw data. Each school was then mailed a comprehensive report detailing the data, analysis, and possible recommendations based upon the results. The researcher sent an email request to the Noel-Levitz website email address on January 18, 2006 requesting a possible means to run a

statistical analysis that includes only Georgia's technical colleges. A return email from a company representative stated that the Noel-Levitz company could run a Georgia Technical College specialized group report vs. the 2 year public data that they had on file for fee. The report has composite mean averages for the institutions participating.

For the qualitative section, the principal data collection technique was an unstructured, focus-group discussion with students who were involved in the original quantitative survey and made up a portion of at least one of the four demographic variables described as the demographic profiles of nontraditional students. The session was during a single sitting and lasted 49 minutes.

In the investigation, the intention was to obtain the students' views on the phenomena under investigation. The discussion enabled the researcher to gain explanations and information on material that was not directly accessible: perceptions, attitudes and values, matters which are difficult to obtain by alternative methods. There were a number of assumptions about the session with the foremost being that the students actually have information that the researcher wanted.

When meeting with the students for the qualitative phase, data was collected and analyzed according to qualitative research guidelines for grounded theory research and constant comparative analysis. Journal entries were kept and were highlighted and synthesized for each research theme. The interview data and individual answers were then coded. Concurrent themes were identified in relation to the research questions. Analysis began with identifying the themes embedded in the raw data, a process sometimes referred to as "open coding".

During open coding, identification and tentative naming of the conceptual categories into which the incidents observed were then grouped. The goal was to create descriptive, multi-dimensional categories which formed a preliminary framework for analysis. Words, phrases or events that appeared to be similar were grouped into the same category. These categories were modified during the subsequent stages of analysis that followed. The categories identified in open coding were then compared and combined in new ways as an attempt that assembled the "big picture." Finally, the researcher translated the conceptual model into a story line that was integrated into the quantitative data and the data so the data could be read and understood by others. The information gathered added a depth and understanding to research questions 1-3.

Data Analysis

This study explored the profile of Georgia Technical College students with regard to their perceptions of importance and their satisfaction with internal institutional factors and the gaps between the two measures. The data was compiled by the Noel-Levitz company at the request of the researcher. Resulting data for this research study will be presented in tables and descriptive statistics generated by the Noel-Levitz surveys will be used to illustrate general trends in response to research questions 1, 2 and 3: To what extent is each of the twelve institutional factors important to students? To what extent are students satisfied with each of the twelve institutional factors? What is the extent of the differences in the importance of and satisfaction with institutional factors? A data base from the sub-set of non-traditional students will answer research question 4: To what extent to importance and satisfaction vary by different characteristics of non-traditional students?

Research question 5 added depth to questions 1-4 by having students in focus groups to explain the reasoning behind the answers of these first three questions. This was an attempt to explain the attitudes of the demographically different students who reported the importance of and satisfaction with the twelve institutional factors of Georgia's technical colleges, and was measured in the same general manner with the addition of a qualitative component consisting of two separate focus groups. In doing so, the researcher interacted with participants and collected data face-to-face from participants. These groups were comprised of students who took the Noel-Levitz Student Satisfaction Inventory (SSI) in 2005 at a technical in Georgia. These focus groups were comprised of students who represented the demographic profiles of nontraditional students.

Through the use of a 70-question survey, data were compiled from 16 technical colleges in Georgia. The data was then analyzed to provide insight into three specific research questions. The questions are categorized into the following three groups: (a) the importance of certain institutional factors as perceived by students, (b) the perceived satisfaction with the institutional factors, and (c) the differences, or gaps, between to levels of importance and the levels of satisfaction.

The data for research questions 1- 4 were obtained from a specialized group report that was generated by the Noel-Levitz for the sole proprietary use of the researcher. The document is entitled *Georgia Technical College Student Satisfaction Inventory Questionnaire* and includes results from 13,742 students. The analysis consisted of the data from the 12 variables being reported in text form and the materials being reported in tabular form that include the scales of importance, satisfaction, and gap. The demographic makeup of the population is reported in text and tabular form

In addition to the quantitative data available, the researcher also conducted two focus-group discussions. These groups were comprised of students who took the Noel-Levitz Student Satisfaction Inventory (SSI) in 2005 at a technical college in Georgia. There were two focus-groups and each was comprised of 5 students who represented the demographic profiles of nontraditional students.

The focus group discussion was formed around a discussion theme of students services areas of the institution and the faculty. The theme was based predominantly upon the institutional variables that the population identified as ranking high in importance to students but ranked low in satisfaction and was previously reported in the tabular data. These differences in importance and satisfaction—termed “Gaps” by the Noel-Levitz instrument—will be the basis of the questions. The topics were presented to the groups, the information recorded, and transcribed. From this, emerging themes and trends were ascertained and the information is presented in text format and reported by major findings.

Human Subjects Institutional Review Board

Georgia Southern University’s Human Subjects Institutional Review Board (IRB) approved the procedures, protocol, and methodology for this study on December 18, 2006. Copies of the IRB approval letter can be found in Appendix A.

Summary

The purpose of this study was to discern the differences between levels of importance and satisfaction rates of institutional factors within Georgia’s technical colleges. In addition to meeting demands for accreditation and accountability, research has shown that colleges which measure (and increase) student satisfaction benefit from increased student engagement and retention, higher graduation rates, lower loan default rates, and higher alumni giving

rates. Colleges also measure satisfaction to keep up with their competition and to operate more efficiently. But most importantly, colleges that measure satisfaction use the data to continuously improve the student experience; thereby fulfilling their role as good stewards of families' increasingly limited financial resources.

Results of this investigation can serve to further the understanding of the internal and controllable factors of an institution that administrators, staff, and policymakers in the technical colleges, and in the two-year college field in general, so that appropriate measures can be employed to enhance enrollment, increase satisfaction and maximize retention rates. The study includes data from a secondary source for answers to questions 1-3 and qualitative focus-group discussions that expanded the reasons for the students' answers in questions 1-3. The methodology was described in Chapter III. In Chapter III, the researcher focused on research methodology by presenting: research questions, research design, sample of population, instrument, data collection, and data analysis. Chapter IV presents the results obtained using those methods. Chapter V will reveal and discuss the findings uncovered in this research.

CHAPTER IV

REPORT OF DATA AND DATA ANALYSIS

Introduction

This chapter contains a summary of the study of factors students feel are important and factors that influence students' satisfaction that may possibly affect student retention in 2-year colleges. The purpose of this study was to examine the relationship of the students' identification of importance and satisfaction with institutional factors of Georgia's technical colleges. More specifically, student perceptions of importance and satisfaction were of interest in the areas of academic advising and counseling effectiveness, academic services, admissions and financial aid, campus climate, campus support services, concern for the individual, instructional effectiveness, registration effectiveness, responsiveness to diverse populations, safety and security, service excellence, and student-centeredness (Juillerat, 1995). The researcher provided a summary of the research design, a profile of the participants in the study, the findings of the research questions, and a summary of the findings of the study.

Research Questions

Five research questions guided this study. A discussion of the demographic composition of the study sample along with the study findings are organized in accordance to these five research questions and are presented in the following sections. The overarching question to be addressed was what is the extent of the differences between students' perceived importance of and satisfaction with institutional factors within Georgia's technical colleges? From this, five subsequent questions evolved.

1. To what extent is each of the twelve institutional factors important to students?
2. To what extent are students satisfied with each of the twelve institutional factors?

3. To what extent do satisfaction and importance differ with the twelve institutional factors?
4. To what extent to importance and satisfaction vary by different characteristics of non-traditional students?
5. How do students with different backgrounds explain importance and satisfaction concerning the institutional factors?

Research Design

This research used a mixed methodology that attempted to ascertain the extent of the differences between students' perceived importance of and satisfaction with institutional factors within Georgia's technical colleges. A portion of the study was quantitative in design in order to understand the factors students identify and important and factors that they report to be satisfied with in their 2-year college. A database of 13,782 students who took the Noel-Levitz Student Satisfaction Inventory (SSI) in 2005 at a technical college in Georgia was used to answer research questions 1, 2, and 3. From the original database, a subset of 4,718 was used for analysis to respond to research question 4 that encompassed students who fit into the identifier of non-traditional students and possessed such characteristics as having delayed their enrollment (did not enter postsecondary education in the same calendar year that he or she finished high school); attends part-time ; works full-time (35 hours or more per week) while enrolled in coursework; and is considered financially independent for purposes of determining eligibility for financial aid—does not live with parents.

A focus group was also used in an attempt to further understand students' levels of satisfaction with the areas individual factors that are controlled by an institution. In doing so, the researcher interacted with 10 participants and collected data face-to-face from

participants. These focus groups were comprised of two groups of five students who represented the demographic profiles of nontraditional students.

Profile of the Participants of the Study

All Respondents

The researcher used a database that was created by the Noel- Levitz Company. Individual technical colleges within the state of Georgia contracted with the Noel-Levitz company to survey students who then completed the Student Satisfaction Inventory survey in 2005. There were 16 colleges and 13,782 students who participated as respondents. This group of participants provided the data called the Sample Set in this study.

The researcher also used a database provided by Noel-Levitz with the Sample Set disaggregated by demographic factors that mirror the description of students classified as non-traditional. This second group of data was taken from the original sample, but it only contains students that have characteristics of non-traditional students and is termed the Sample Sub-Set. This Sample Sub-Set is comprised of 4714 students who were classified non-traditional representing four characteristics. The four categories are: delayed enrollment (beginning college at age 25 or older); 4206 students who are employed full-time; 3859 students who attend at least part time; and 4430 respondents categorized as a student as independent caregiver (not living in parent's home). After an analysis of the trends and themes that arose from these two databases, the researcher formed two focus groups to understand in depth the themes and trends. Therefore, data collection involved three groups of respondents; the Sample Set of 13,782 students, The Sample Sub-Set of 4,714 students, and two Focus Groups of five students each (n=10), who reflected the profile of non-traditional students.

Sample Set

Research questions 1, 2, and 3 were answered using data from the Sample Set of 13,782 students. In the Sample Set regarding gender, 9419 women (68.34%) participated in the study compared to men 4,363 (31.66%). The ethnic/racial composition of the sample set was comprised of the White population being the largest, at 7,837 constituting more than 57% of the sample. 4,483 students identifying themselves as Black made up over 32% of the sample and students who declared no race or other race comprised the third largest ethnic group making up approximately 7% of the sample as detailed in Table 4.

Table 4

Sample Set: Composition by Ethnicity

Ethnicity	Number	%
African-American	4483	32.70
American Indian or Alaskan Native	88	0.64
Asian or Pacific Islander	170	1.24
Caucasian/White	7837	57.16
Hispanic	216	1.58
Other race	306	2.23
Race - Prefer not to respond	610	4.45
Total	13710	100.00

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire.

Students attending classes during the day outnumbered evening and weekend students by a 2 to 1 ratio as 63% (8508) attend during the day and 36% (4917) attend at

night and on weekends. The Sample Set respondents were enrolled in the technical colleges for various purposes. The largest group (43.2%) of the sample (5849) intended on pursuing an associate's degree. The second largest group (25.5%) intended to earn a diploma. An associate degree is approximately 120 credit hours whereas a diploma is approximately 90 credit hours. Smaller percentages of the sample reported they were enrolled for the following reasons: transfer (3.9%), obtain professional certification (12.3%), take self-improvement classes (2%), receive job related training (5%), and other (8.7%). Most students were enrolled in degree and diploma programs. (See Table 5)

Table 5

Sample Set: Composition by Educational Goal

Educational Goal	Frequency	%	Cumulative %
Associate' s degree	5849	43.22	43.22
Vocational Diploma program	3499	25.49	68.71
Transfer to another institution	431	3.18	71.89
Certification	1665	12.30	84.19
Self-improvement/pleasure	277	2.05	86.24
Job-related training	685	5.06	91.30
Other educational goal	1177	8.70	100.00
Total	13533	100.0	

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

The majority of the students (n=8787) reported being enrolled full-time (64.15%), A total n= 4910 (36%) attend at least part time as detailed in Table 6. Students attending classes in the daytime outnumbered evening and weekend students by a 3 to 1 ratio with 63% attending during the day (n=8508) and 36% (n=4917) attending at night.

Table 6

Sample-Set: Status of Students Enrolled in Current Quarter

	Enrollment	Frequency	%	Cumulative %
	Full-time	8787	63.25	63.25
	Part-time	4910	36.75	100.0
Total		13697	100.00	

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire.

Relative to employment status, nearly equal portions of the sample set reported being full-time, part-time, and non-employed (Table 7). The majority of the students (n=5699) in the sample were employed on a full-time basis (39.7%), that is, 35 or more hours during the week during spring quarter of 2005. Over twenty-three percent (n=3508) of the study respondents were employed part time (less than 35 hours per week), four percent were employed on campus totaling 67% of the students were employed (n=9207) and almost thirty-three percent were unemployed during the spring 2005 quarter.

Table 7

Sample-Set: Number of Students Working in Current Quarter

Employment	Frequency	%	Cumulative %
Full-time off campus	5441	39.72	39.72
Part-time off campus	3172	23.15	62.87
Full-time on campus	258	1.88	64.75
Part-time on campus	336	2.45	67.20
Not employed	4492	32.80	100.00
Total	13699	100.0	

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire.

Most of the students (70%) reported that they owned their own home, rented an apartment, or had another residence besides living with their parents (Table 8). Almost thirty percent of the study participants reported living at their parent's home.

Table 8

Sample-Set: Number of Students Who Do Not Live with Their Parents

Current Residence	Frequency	%	Cumulative %
Own house	5755	42.03	42.03
Rent room or apt off campus	2652	19.37	61.40
Other residence	1174	8.57	69.97
Residence hall	28	0.20	70.17
Parent's home	4084	29.83	100.00
Total	13693	100.00%	

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire.

The 19 to 24 years of age category comprised the largest age category (n=5192) constituting 37.8% of the sample as shown in Table 9. This criteria is relevant to enrollment as these students delay enrollment and do not enter postsecondary education in the same calendar year of their high school completion. Students 25 years old and older were 56% of the total (n=7704).

Table 9

Sample-Set: Composition by Age

Age	Frequency	%	Cumulative %
18 and under	840	6.12	6.12
19 to 24	5192	37.80	43.92
25 to 34	3735	27.19	71.11
35 to 44	2330	16.96	88.07
45 and over	1639	11.93	100.0
Total	13736	100.00	

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire.

Sample Sub-Set

The Sample includes 13,782 students who took the SSI at a technical college in Georgia in 2005. Since the major focus of this research examined the students who are considered the mainstay of community colleges--the non-traditional students—the researcher gleaned information from the Sample Set that reflected the characteristics of these students. Traditional four-year college and university students are 17-19 years old, may work part-time, attend class full-time, and are included on their parent's income tax as a dependent (Dill, 1998). To assist in explaining the quantitative data from the entire sample population, the researcher gathered data sub-sets to compare and contrast institutional factors and individual survey items from groups of non-traditional students. These sub-sets of non-traditional students are classified as:

1. Having delayed their enrollment (did not enter postsecondary education in the same calendar year that he or she finished high school);
2. Attends part-time for at least part of the academic year;
3. Works full-time (35 hours or more per week) while enrolled in coursework and;
4. Is considered financially independent for purposes of determining eligibility for financial aid—does not live with parents (Horn, 1996).

Research question 4 was answered by the sub-set of respondents labeled as non-traditional that were part of the original data base termed sample. The researcher purchased individual statistical analysis on each of the four sub-sets of non-traditional students.

From the 16 institutions and 13,782 students who completed the survey, the researcher received data sets from Noel-Levitz that included Georgia's technical colleges' entire student population who took the survey and were included in the demographic profiles of the four non-traditional student characteristics as described by Horn. 7704 students were classified as representing delayed enrollment (beginning college at age 25 or older); 5699 students who are employed full-time; 4910 students who attend at least part time; and 9581 respondents categorized as a student as independent caregiver (not living in parent's home).

Focus Groups

Research question 5 was answered with ideas and themes that were generated through focus group discussions that focused on the general themes generated from the quantitative data from research questions 1-4. The ten participants in the focus groups were comprised of students who are described as non-traditional. There were two focus groups made up of five individuals each for a total participant base of ten. The majority

of the students in the focus group sample (8) were enrolled on a full-time basis (80%), that is, 12 or more quarter units during the spring quarter of 2005.

In describing the ten participants as non-traditional students, the majority of the students (7) in the focus group sample were employed on a full-time basis (70%), that is, 35 or more hours during the week during spring quarter of 2005. Twenty percent (2) of the focus group were employed part time (less than 35 hours per week), 10 percent (1) was employed on campus totaling 100% of the students were employed during the spring 2005 quarter. 100% of focus group students surveyed (10) claimed that they owned their own home, rented an apartment, or had another residence besides living with their parents. All members of the focus group sample (10) reported delayed enrollment of 7 or more years, while none reported six or less years of delayed enrollment past high school before participating in coursework at the community college level. Within the focus groups, five women (50%) participated in the study to the same degree as men with 5 participants (50%). All 10 of the respondents of the focus group were 25 years of age or older. The 25 to 34 years of age category comprised the largest age category of the focus group students (8), constituting 80% of the sample while 35 to 44 made up 20% (2). The race component of the demographics of the focus groups reveal Blacks made up 50% (5), Whites made up 40% (4), and Hispanics made up 10% (1) of the group. Students attending classes in the daytime were the same as the same as the evening with 5 (50%) in each group.

Summary of Respondents

Research questions 1, 2, and 3 were answered by using a database of 13,782 students who took the Noel-Levitz Student Satisfaction Inventory (SSI) in 2005 at a technical college in Georgia. Research question 4 was answered by students who were classified non-

traditional representing four characteristics of: delayed enrollment; employed full-time; attend at least part time; and as independent caregiver. Research question 5 was answered by two focus groups consisting of five students each.

To determine the answer to research question 1, the researcher disaggregated the data from the Sample Set of 13,782 and ranked the institutional factors in descending order of importance. To determine the answer to research question 2, the researcher disaggregated the data from the Sample Set of 13,782 and ranked the institutional factors in descending order of satisfaction. To determine the answer to research question 3, the researcher disaggregated the data from the Sample Set of 13,782 and ranked the institutional factors by the differences (gaps) between the data retrieved in research questions 1 and 2; importance and satisfaction. The researcher then ranked the institutional factors in descending order of the gaps.

To determine the answer to research question 4, the researcher disaggregated the data from the Sample Sub Set of 7704 students who were classified as representing delayed enrollment; 5699 students who are employed full-time; 4910 students who attend at least part time; and 9581 respondents categorized as a student as independent caregiver. These four subsets were then analyzed by the 12 identical institutional factors as in research questions 1-3 and the factors were then ranked in descending order of importance, satisfaction, and the gaps between importance and satisfaction as with research questions 1-3.

To determine the answer to research question 5, the researcher conducted two focus group discussions. The topics for the discussions were formed from the findings of research questions 1-4 and in particular, findings from research question 3 concerning the gaps between the students' perceptions of the factor's importance and satisfaction, and topics that

arose during the conversations. These findings were compared to the findings of the non-traditional student subset data of research question 4 and themes and trends evolved. These themes and trends were the basis of the focus group discussions.

Findings

The Noel-Levitz company compiled the raw data from the 70 question (termed items) Student Satisfaction Inventory (SSI) survey and disseminated the individual questions into 12 separate categories or as termed by Noel-Levitz, factors. The databases are electronic and may be manipulated and displayed by factor or item, and then ranked by importance, satisfaction, or gap. The researcher ranked 70 items by importance, satisfaction, and gap within categories. In reporting the findings, the researcher identified the top three factors and the bottom three factors out of the 12. The entire 12 factors were portrayed in tabular form. The researcher also listed the upper and lower items to explain each factor.

Research Question 1

What extent is each of the twelve institutional factors important to students? The findings from the overall group of 13,782 students indicated that study respondents reported Instructional Effectiveness, Registration Effectiveness, and Academic Advising and Counseling as the top three most important aspects of their technical college experience; Service Excellence, Campus Support Services, and Responsiveness to Diverse Populations were reported as least three in relative importance. Range of scale means = 5.71 to 6.29 (See Table 10).

Table 10

Sample Set: Factors in Order of Importance

Scale	Importance
Instructional Effectiveness	6.29
Registration Effectiveness	6.28
Academic Advising/Counseling	6.27
Admissions and Financial Aid	6.24
Concern for the Individual	6.22
Safety and Security	6.17
Student-Centeredness	6.16
Campus Climate	6.16
Academic Services	6.13
Service Excellence	6.13
Campus Support Services	5.77
Responsiveness to Diverse Populations	5.71

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

The rankings of importance suggest a simple ranking. This ranking does not suggest that respondents feel the items are not important.

In regard to individual items on the SSI that make up the 12 factors, respondents reported high levels of importance in the items that make up the factors of Instructional Effectiveness, Registration Effectiveness, and Academic Advising and Counseling. Individual items within these factors include: nearly all classes deal with practical experiences and applications; students are notified early in the term if they are doing poorly in a class; program requirements are clear and reasonable; there is a good variety of courses provided on this campus; and I am able to experience intellectual growth here.

The individual items that student felt the least importance was in the Service Excellence, Campus Support Services, and Responsiveness to Diverse Populations factors and include: child care facilities are available on campus; geographic setting as factor in decision to enroll; and the size of institution was a factor in decision to enroll. The individual items are listed per factor in Appendix C.

Research Question 2

To what extent are students satisfied with each of the twelve institutional factors? These findings are from the overall group of 13,782 students from the Sample data group. Satisfaction with an institution includes a combination of academic issues as well as areas related to student life. Study findings indicated that the colleges were closer to meeting the expectations of students in the areas of Instructional Effectiveness, Student Centeredness, and Concern for the Individual as the most satisfying aspects of their community college experience. The individual items that comprise these factors are: student's interaction with faculty; the service students receive from staff and administrators; the physical resources on campus; the policies that are in place; and students' overall feeling of being welcome on campus.

Academic Services, Safety and Security, and Campus Support Services, were reported as least satisfying. Individual items making up these factors are: I generally know what is happening on campus; the amount of student parking space on campus is adequate; and this campus provides effective support services for displaced homemakers. Range of scale means = 5.16 to 5.79 (see Table 11).

Table 11

Sample Set: Factors in Order of Satisfaction

Scale	Satisfaction
Instructional Effectiveness	5.79
Student Centeredness	5.65
Concern for the Individual	5.63
Academic Advising/Counseling	5.62
Registration Effectiveness	5.61
Campus Climate	5.61
Responsiveness to Diverse Populations	5.61
Admissions and Financial Aid	5.50
Service Excellence	5.49
Academic Services	5.48
Safety and Security	5.32
Campus Support Services	5.16

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

The rankings of satisfaction suggest a simple ranking. This ranking does not suggest that respondents feel they are not satisfied with an item.

In regard to individual questions on the SSI, respondents reported adequacy of maintenance of the campus as the most satisfying individual aspect of their overall educational experience at the technical college which is in the Service Excellence factor as well as the item of being able to experience intellectual growth at the college was also included among the ten most satisfying individual items. Other individual items that ranked highest in satisfaction were issues such as the quality of instruction and were within the Instructional Effectiveness factors and include having knowledgeable instructors and the institution's commitment to part-time students. Non-instructional items completing this list

of most satisfying aspects of the student experience and within the Student Centeredness factor included ability to register with little conflict, ease of class change (add/drop) policies, variety of course offerings, and adequacy and accessibility of computer labs.

Research Question 3

To what extent do satisfaction and importance differ with the twelve institutional factors? These findings are from the overall group of 13,782 students from the Sample data group. Research findings related to satisfaction can be interpreted best in light of performance gap data for this study; performance gap data for this study provided critical information on how the educational institution is meeting student expectations in various areas and how programs and policies of the future can be developed, changed, and maintained to fulfill student expectations (USA Group Noel-Levitz, 2004).

Performance gaps are calculated as the difference between importance scores and satisfaction scores; they signify any discrepancies between what students perceived as important and satisfying in their educational experience and the perception of their actual experience. The student responses are averaged to produce an importance score and a satisfaction score for each item. A larger performance gap indicates that the institution is not meeting student expectations; a smaller performance gap indicates that the institution is doing a relatively good job of meeting expectations. Negative performance gaps indicate that an institution is exceeding student expectations; negative gaps are rare and are more likely to be found on items of low importance to students.

Each of the 12 factors were analyzed closely within this research question as this aspect, the gap between a student's perception of the importance of a factor and the subsequent satisfaction with the same factor, was the underlying focus of the entire study.

The Safety and Security scale yielded the greatest performance gap score followed by the Admissions and Financial Aid, and Registration Effectiveness scales. These were followed by Academic Advising and Counseling, Academic Services, Campus Support Services, and Concern for the Individual. Campus Climate, Student Centeredness, Instructional Effectiveness, and Response to Diverse Populations scales indicated the least performance gaps signifying that the institution was closer to meeting student expectations in these areas. Range of performance gap score means for these scales = .10 to .85 (see Table 12).

Table 12

Sample Set: Factors in Order of Performance Gaps

Scale	Performance Gap	Importance	Satisfaction
Safety and Security	0.85	6.17	5.32
Admissions and Financial Aid	0.74	6.24	5.50
Registration Effectiveness	0.67	6.28	5.61
Academic Advising/Counseling	0.65	6.27	5.62
Academic Services	0.65	6.13	5.48
Service Excellence	0.64	6.13	5.49
Campus Support Services	0.61	5.77	5.16
Concern for the Individual	0.59	6.22	5.63
Campus Climate	0.55	6.16	5.61
Student-Centeredness	0.51	6.16	5.65
Instructional Effectiveness	0.50	6.29	5.79
Responsiveness to Diverse Populations	0.10	5.71	5.61

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

The individual item from the survey with the greatest performance gap was contained in the factor of Safety and Security is somewhat of an anomaly. Though this factor had the largest gap between importance and satisfaction, the factor did not rank high on the importance scale ranking eighth out of twelve scales. Noel-Levitz (2006) reminds administrators to proceed cautiously when looking at the gaps of importance and satisfaction and note the scale's level of overall importance as in the case. Individual items include: Security staff responds quickly in emergencies; parking lots are well-lighted and secure; and the campus is safe and secure for all students.

In regard to the remaining individual items on the SSI that make up the 12 factors, the next three factors from the survey with the greatest performance gap were contained in the student services areas of the technical colleges: Admissions and Financial Aid; Registration Effectiveness; and Academic Advising. Within the Admissions and Financial Aid institutional factor, individual questions with the largest gaps include: notification of poor academic performance; helpful financial aid counseling; having adequate channels for expressing complaints and the college's expression of concern for the individual student; and financial aid awards are announced to students in time to be helpful in college planning.

The Registration Effectiveness factor ranked next. Individual items from this factor include: students seldom get "the runaround" when seeking information on this campus; I am able to register for classes I need with few conflicts; policies and procedures regarding registration and course selection are clear and well-publicized; and class (add/drop) policies are reasonable.

Academic Advising was the next factor with the greatest gap between importance and satisfaction. These items dealt mainly with academic advisors. Items about these advisors

include: helps me set goals to work toward; is concerned about my success as an individual; is knowledgeable about my program requirements; and my academic advisor is knowledgeable about the transfer of other schools

The fifth institutional factor with the largest gap was Academic Services. This factor assesses services students utilize to achieve their academic goals. These services include the library, computer labs, and tutoring and study areas. This factor included the individual items of: there are a sufficient number of study areas on campus; computer labs are adequate and accessible; and the equipment in lab facilities is kept up to date.

The Service Excellence factor ranked next in the order of greatest gaps. Service Excellence assesses the attitude of staff toward students, especially front-line staff—those individuals who come in contact with students and potential students first. This scale pinpoints the areas of the campus where quality service and personal concern for students are rated most and least favorably. The individual items included in this factor are: the library staff is helpful and approachable; staff is caring and helpful; administrators are approachable to students; bookstore staff is helpful; and counseling staff care about me as an individual.

Campus Support Services ranked next with a performance gap of .61. This factor assesses the quality of services utilized by students in order to integrate their academic experience with their lives outside of campus. Individual items that make up this factor include: there are adequate services to help me decide upon a career; this school does whatever it can to help me reach my educational goals; and the career services office provides students with the help they need to get a job.

The factor of Concern for the Individual ranked next. The factor assesses the institution's commitment to treating each student as an individual, including the impact of

those who frequently interact with students such as the faculty, advisors, and counselors.

Individual items that are in the factor are: most students feel a sense of belonging here; the college shows concern for students as individuals; my academic counselor is concerned about my success as an individual; and the faculty is fair and unbiased in their treatment of individual students.

Campus Climate ranks next with a gap of .55. Campus Climate entails an assessment of students' feelings of connectedness with the institution as well as faculty, staff, and institutional commitment; quality of social environment; and sense of community. Individual items include: people on this campus respect and are supportive of each other; I seldom get the run around when seeking information on this campus; channels for expressing student complaints are readily available; and it is an enjoyable experience to be a student on this campus.

The individual items from the survey with the least performance gap were contained in the areas concerning Student Centeredness, Instructional Effectiveness, and Response to Diverse Populations. Items within the factors reflect the students' academic experience, the curriculum, and the campus's overriding commitment to academic excellence.

Individual questions with the smallest gaps that are incorporated into the Instructional Effectiveness category include: faculty care about me as an individual; the quality of instruction I receive in most of my classes is excellent; faculty are understanding of students' unique life circumstances; and nearly all of the faculty are knowledgeable in their fields. Individual items in the Student Centeredness factor include: most students feel a sense of belonging here; the college shows concern for students as individuals; and the campus staff is caring and helpful.

The Response to Diverse Populations category may need to be defined better by the Noel-Levitz company further for a true meaning. Readers and survey takers may assume that diversity questions deal with race, ethnicity, gender, or other variables traditionally associated with the term. In the SSI, diversity is described by such factors as: students being part-time; evening; older; returning; commuters; and students with disabilities. Though this factor had the smallest gap between importance and satisfaction, the factor did not rank high on the importance scale, ranking eleventh out of twelve scales. Administrators and decision makers must be cognizant of the fact that though there is a large gap, the factor is not of high importance to students. Individual items that reflect students' opinions on how satisfied they are that the campus demonstrates a commitment to meeting the needs of part-time students, evening students, older and returning learners, under-represented populations, commuters, and students with disabilities.

Research Question 4

To what extent do importance and satisfaction vary by different characteristics of non-traditional students? This question was answered using data from the Sub-Set data group described as non-traditional students. This sub-set is comprised of only the students who fall into at least one of the categories as described as non-traditional and come from the original data base of 13, 782 students. The findings of the four sub-set groups of non-traditional participants are reported in the same manner as the first three research questions and categorized by importance, satisfaction, and gaps. Research question 4 allowed the researcher to analyze and compare or contrast the sub-set to the entire sample population, as reported in research questions 1-3. The four sub-set groups are identified as employed full-time, part-

time class load, student as independent caregiver, and students over age 25 reflecting delayed enrollment..

Employed Full-Time

The responses to the survey by 4206 students employed full-time (over 35 hours per week) were analyzed to determine the ranking of the 12 institutional factors by importance, satisfaction, and performance gap data. The institutional summary data along with the individual survey items of greatest and least importance are provided along with the individual survey items of greatest and least satisfaction are provided (in descending order of performance gap score) along with the individual survey items of greatest and least performance gaps. The findings were used for comparison of data in all four Sub Sets.

The following findings are from the sub-set data base of students employed full-time. The study respondents reported Instructional Effectiveness, Registration Effectiveness, and Academic Advising/Counseling as the most important aspects of their technical college experience. Service Excellence, Campus Support Services, and Responsiveness to Diverse Populations were reported as least important. Range of scale means = 5.71 to 6.29 (See Table 13).

Table 13

Sub Set: Employed Full Time--Factor Rank by Importance

Scale	Importance
Instructional Effectiveness	6.29
Registration Effectiveness	6.27
Academic Advising/Counseling	6.26
Admissions and Financial Aid	6.22
Concern for the Individual	6.20
Safety and Security	6.15
Student Centeredness	6.14
Campus Climate	6.14
Service Excellence	6.11
Academic Services	6.10
Campus Support Services	5.71
Responsiveness to Diverse Populations	5.65

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Individual items that employed full-time students felt most important were: nearly the entire faculty is knowledgeable in their field; faculty is usually available after class and during office hours; and classes are scheduled at times that are convenient for me. Individual items that employed full-time students felt least important were: academic support services adequately meet the needs of students; the career services office provides students with the help they need to get a job; there are adequate services to help me decide upon a career.

Students employed full-time were most satisfied with factors including Responsiveness to Diverse Populations, Instructional Effectiveness, and Student Centeredness ranking the highest (see Table 14). The lowest ranking items include Service Excellence, Safety and Security, and Campus Support Services.

Table 14

Sub Set: Employed Full Time--Factor Rank by Satisfaction

Scale	Satisfaction
Instructional Effectiveness	5.85
Responsiveness to Diverse Populations	5.75
Student Centeredness	5.68
Registration Effectiveness	5.62
Academic Advising/Counseling	5.60
Campus Climate	5.60
Concern for the Individual	5.58
Academic Services	5.54
Admissions and Financial Aid	5.53
Service Excellence	5.50
Safety and Security	5.34
Campus Support Services	5.13

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Individual items that employed full-time students felt most satisfied were: faculty understands of student s unique life circumstances; faculty is fair and unbiased in their treatment of individual students; and faculty is interested in my academic problems.

Individual items that employed full-time students felt least satisfied were: I seldom get the run around when seeking information on this campus; channels for expressing student complaints are readily available; and new student orientation services help students adjust to college

The researcher found that the students employed full-time yielded the Safety and Security scale the greatest performance gap score followed by the Admissions and Financial Aid, and Academic Advising/Counseling scales. Student-Centeredness, Campus Support Services, and Responsiveness to Diverse Populations scales indicated the least performance gaps signifying that the institution was closer to meeting student expectations in these areas. Range of performance gap score means for these scales = .44 to .81 (see Table 15).

Table 15

Sub Set Employed Full Time—Factors by Gap

Scale	Gaps	Importance	Satisfaction
Safety and Security	0.81	6.15	5.34
Admissions and Financial Aid	0.69	6.22	5.53
Academic Advising/Counseling	0.66	6.26	5.60
Registration Effectiveness	0.65	6.27	5.62
Concern for the Individual	0.62	6.20	5.58
Service Excellence	0.61	6.11	5.50
Campus Support Services	0.58	5.71	5.13
Academic Services	0.56	6.30	5.54
Campus Climate	0.54	6.14	5.60
Student Centeredness	0.46	6.14	5.68
Instructional Effectiveness	0.44	6.29	5.85
Responsiveness to Diverse Populations	0.10	5.65	5.75

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Individual items with greatest gaps of full-time employed students were: my academic advisor is approachable; my academic advisor helps me set goals to work toward; and my academic advisor is concerned about my success as an individual. Individual items with smallest gaps of full-time employed students were: the quality of instruction I receive in most of my classes is excellent; nearly the entire faculty is knowledgeable in their field; and nearly all classes deal with practical experiences and applications.

In comparing the data from the sub-set group of Employed Full-Time to the overall sample set from research questions 1-3, the items that ranked highest for importance for both groups were Instructional Effectiveness, Academic Advising and Registration Effectiveness and the least importance were Service Excellence, Campus Support Services, and

Responsiveness to Diverse Populations, indicating the finding that each group paralleled each other. Concerning the area of satisfaction, Responsiveness to Diverse Populations, Instructional Effectiveness, and Student Centeredness ranked the highest and Service Excellence, Safety and Security, and Campus Support Services ranked the lowest in satisfaction showing each group paralleled each other. Addressing the gaps between what students feel are important and their degree of satisfaction, only very small percentages of the variance in each dependent variable relative to satisfaction could be explained by the independent variables as referenced in Table 16.

Table 16

Employed Full Time Sub Set versus the Overall Sample Group

Sub Set	Gap	Overall Sample Set	Gap
Safety and Security	0.81	Safety and Security	0.85
Admissions and Financial Aid	0.69	Admissions and Financial Aid	0.74
Academic Advising/Counseling	0.66	Registration Effectiveness	0.67
Registration Effectiveness	0.65	Academic Advising/Counseling	0.65
Concern for the Individual	0.62	Academic Services	0.65
Service Excellence	0.61	Service Excellence	0.64
Campus Support Services	0.58	Campus Support Services	0.61
Academic Services	0.56	Concern for the Individual	0.59
Campus Climate	0.54	Campus Climate	0.55
Student Centeredness	0.46	Student-Centeredness	0.51
Instructional Effectiveness	0.44	Instructional Effectiveness	0.50
Responsiveness to Diverse Populations	0.10	Responsiveness to Diverse Populations	0.10

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

In summary, though there was some change in the ranking of the factors, statistically the Sub Set group did not significantly differ from the overall Sample group in their responses to the importance, satisfaction, or gaps (differences) in the 12 institutional factors.

Part-Time Class Load

The responses to the survey by 3859 students enrolled part time (less than 12 per week) were analyzed to determine the ranking of the 12 institutional factors by importance, satisfaction, and performance gap data. The following findings are included in the data base of part time enrolled. Study respondents reported Instructional Effectiveness, Registration

Effectiveness, and Academic Advising/Counseling, as the most important aspects of their technical college experience. Academic Services, Campus Support Services, and Responsiveness to Diverse Populations were reported as least important. Range of scale means = 5.70 to 6.27 as noted in Table 17.

Table 17

Sub Set: Part Time Class Load --Factors by Importance

Scale	Importance
Instructional Effectiveness	6.27
Registration Effectiveness	6.26
Academic Advising/Counseling	6.23
Admissions and Financial Aid	6.20
Concern for the Individual	6.20
Safety and Security	6.17
Student Centeredness	6.14
Campus Climate	6.14
Service Excellence	6.09
Academic Services	6.07
Campus Support Services	5.70
Responsiveness to Diverse Populations	5.65

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Individual items that part-time students felt were most important were: The personnel involved in registration are helpful; I am able to register for classes I need with few conflicts; and program requirements are clear and reasonable. Individual items that part-time students felt were least important were: the equipment in lab facilities is kept up to date; the student

center is a comfortable place for students to spend their leisure time; childcare facilities are available on campus.

The items that students with part-time class loads were most satisfied with include Instructional Effectiveness, Campus Climate, and Academic Service (see Table 18).

Individual items within these categories with the highest ranking include: classes are scheduled at times that are convenient for me; the quality of instruction I receive in most of my classes is excellent; and adequate financial aid is available for most students. Students were least satisfied items of Safety and Security, Campus Support Services, and Responsiveness to Diverse Populations with overall means ranging from 5.09 to 5.83.

Individual items that ranked highest in importance within these factors include: I generally know what is happening on campus; administrators are approachable to students; along with security staff are helpful and respond quickly in emergencies.

Table 18

Sub Set: Part Time Class Load --Factors by Satisfaction

Scale	Satisfaction
Instructional Effectiveness	5.83
Campus Climate	5.68
Academic Services	5.63
Registration Effectiveness	5.61
Concern for the Individual	5.58
Academic Advising/Counseling	5.57
Admissions and Financial Aid	5.51
Service Excellence	5.48
Student Centeredness	5.38
Safety and Security	5.38
Campus Support Services	5.16
Responsiveness to Diverse Populations	5.09

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Students with part-time class loads identified the Safety and Security scale with the greatest performance gap score followed by the Admissions and Financial Aid, and Concern for the Individual scales. Individual items within these scales include: most students feel a sense of belonging here; the college shows concern for students as individuals; and admissions counselors respond to prospective students' unique needs and requests.

Campus Climate, Student-Centeredness, and Academic Services scales indicated the least performance gaps signifying that the institution was closer to meeting student expectations in these areas. Table 19 illustrates the means ranged from .42 to .79. Individual items within these factors that had the least gaps are: faculty care about me as an individual; this school does whatever it can to help me reach my educational goals; and academic support services adequately meet the needs of students.

Table 19

Sub Set: Part Time Class Load—Factors by Gaps

Scale	Gaps	Importance	Satisfaction
Safety and Security	0.79	6.17	5.38
Admissions and Financial Aid	0.69	6.20	5.51
Academic Advising/Counseling	0.66	6.23	5.57
Registration Effectiveness	0.65	6.26	5.61
Concern for the Individual	0.62	6.20	5.58
Service Excellence	0.61	6.09	5.48
Student Centeredness	0.58	6.14	5.56
Responsiveness to Diverse Populations	0.56	5.65	5.09
Campus Support Services	0.54	5.70	5.16
Campus Climate	0.46	6.14	5.68
Instructional Effectiveness	0.44	6.27	5.83
Academic Services	0.42	6.07	5.65

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

In regard to individual questions on the SSI that make up the 12 factors, for this subset the individual inventory questions that make up the overall factors that part-time students were most satisfied include: classes are scheduled at times that are convenient for me; the quality of instruction I receive in most of my classes is excellent; and adequate financial aid is available for most students. Respondents reported adequacy of maintenance of the campus as the most satisfying individual aspect of their overall educational experience at the technical college; and being able to experience intellectual growth here.

Other related instructional issues such as the quality of instruction, knowledgeable instructors and the institution's commitment to part-time students were perceived as satisfying. Non-instructional items completing this list of most satisfying aspects of the student experience included ability to register with little conflict, ease of class change (add/drop) policies, variety of course offerings, and adequacy and accessibility of computer labs. Range of means for these scale items = 5.82 to 5.98.

Student Services areas were listed among the least satisfying aspects for students, such as, low satisfaction with financial aid counseling, academic advisors concern for individual students, general knowledge of campus activities, and having adequate channels with which to lodge student complaints. Range of means for these scale items = 4.82 to 5.38.

In comparing the data from the Enrolled Part Time Sub Set group of Part Time Class Load to the overall Sample Set from research questions 1-3, the items that ranked highest for importance for both groups were Instructional Effectiveness, Academic Advising and Registration Effectiveness and the least importance were Academic Services, Campus Support Services, and Responsiveness to Diverse Populations showing each group paralleled each other. Concerning the area of satisfaction, Instructional Effectiveness, Campus Climate,

and Academic Services ranked the highest while Safety and Security, Campus Support Services, and Responsiveness to Diverse Populations ranked the lowest in satisfaction showing each group paralleled each other. Addressing the gaps between what students feel are important and their degree of satisfaction, only very small percentages of the variance in each dependent variable relative to satisfaction could be explained by the independent variables as referenced in Table 20.

Table 20

Part Time Class Load Sub Set versus the Overall Sample Group

Sub Set	Gap	Overall Sample Set	Gap
Safety and Security	0.79	Safety and Security	0.85
Admissions and Financial Aid	0.69	Admissions and Financial Aid	0.74
Academic Advising/Counseling	0.66	Registration Effectiveness	0.67
Registration Effectiveness	0.65	Academic Advising/Counseling	0.65
Concern for the Individual	0.62	Academic Services	0.65
Service Excellence	0.61	Service Excellence	0.64
Student Centeredness	0.58	Campus Support Services	0.61
Responsiveness to Diverse Populations	0.56	Concern for the Individual	0.59
Campus Support Services	0.54	Campus Climate	0.55
Campus Climate	0.46	Student-Centeredness	0.51
Instructional Effectiveness	0.44	Instructional Effectiveness	0.50
Academic Services	0.42	Responsiveness to Diverse Populations	0.10

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Within the sub-set of part-time students, the factor of Responsiveness to Diverse Populations showed a large gap difference comparing the part-time enrolled sub-set and the sample set. Within this factor, both groups felt that the factor was important (sub-set 5.65 and sample 5.71), but concerning satisfaction, the sub-set ranked the factor at 5.09 while the sample set ranked the factor at 5.61 equaling a difference in .52. Individual items that made us this factor include: How satisfied are you that this campus demonstrates a commitment to meeting the needs of: part-time students, evening students, older-returning learners, under-represented populations, commuters, and students with disabilities. There were no significant differences in the individual items except concerning part-time students. The means for this item 5.02 for the sub-set and 5.58 for the sample set.

In summary, though there was differences in the ranking of the Diversity factor, statistically the Sub Set group did not significantly differ from the overall Sample group in their responses to the importance, satisfaction, or gaps (differences) in the 12 institutional factors. Though factors in the middle of the rankings varied to a small degree, the gap coefficients were close for both groups.

Independent Caregiver

The responses to the survey by 4430 students who are independent caregivers (those who do not live with their parents) were analyzed to determine the ranking of the 12 institutional factors by importance, satisfaction, and performance gap data. Study respondents reported Instructional Effectiveness, Academic Advising/Counseling, and Registration Effectiveness as the most important aspects of their technical college experience; Academic Services, Responsiveness to Diverse Populations, and Campus

Support Services were reported as least important. Range of scale means = 5.35 to 6.35 (See Table 21).

Table 21

Sub Set: Student as Independent Caregiver--Factor by Importance

Scale	Importance
Instructional Effectiveness	6.35
Academic Advising/Counseling	6.33
Registration Effectiveness	6.32
Admissions and Financial Aid	6.29
Concern for the Individual	6.28
Student Centeredness	6.22
Safety and Security	6.22
Campus Climate	6.22
Service Excellence	6.18
Academic Services	6.16
Responsiveness to Diverse Populations	6.03
Campus Support Services	5.77

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Individual items for independent caregivers for most important include: my academic advisor is concerned about my success as an individual; faculty take into consideration student differences as they teach their course; and faculty are fair and unbiased in their treatment of individual students. Individual items for independent caregivers for least

important include: the equipment in lab facilities is kept up to date; the student center is a comfortable place for students to spend their leisure time; childcare facilities are available on campus.

Students within the independent caregiver category were most satisfied with how their college responded to Diverse Populations, Instructional Effectiveness, and Student Centeredness. The lowest ranking items include Service Excellence, Safety and Security, and Campus Support Services. The mean scale for this ranged from 5.28 to 5.80. See table 22.

Table 22

Sub Set: Student as Independent Caregiver—Factors by Satisfaction

Scale	Satisfaction
Responsiveness to Diverse Populations	5.93
Instructional Effectiveness	5.86
Student Centeredness	5.76
Academic Advising/Counseling	5.71
Registration Effectiveness	5.71
Campus Climate	5.69
Concern for the Individual	5.66
Admissions and Financial Aid	5.58
Service Excellence	5.58
Academic Services	5.58
Safety and Security	5.41
Campus Support Services	5.21

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Individual items within these categories with the highest ranking of satisfaction include: policies and procedures regarding registration and course selection are clear and well-publicized; the business office is open during hours which are convenient for most students; and counseling staff care about me as an individual. Individual items within these categories with the lowest ranking include: there are a sufficient number of study areas on campus; tutoring services are readily available; and the student center is a comfortable place for students to spend their leisure time.

The greatest gaps between independent caregiver student perceptions of importance and what they were satisfied with occurred in issues of Safety and Security, Admissions and Financial Aid and Academic Advising/ Counseling are referenced in Table 23. The closest gap, those factors students felt were important and they were satisfied with, were in the area of Campus Support Systems, Student Centeredness, and Responsiveness to Diverse Populations. The mean scale ranged from .81 to .40.

Table 23

Sub Set: Student as Independent Caregiver—Factors by Gap

Scale	Gap	Importance	Satisfaction
Safety and Security	0.81	6.22	5.41
Admissions and Financial Aid	0.71	6.29	5.58
Academic Advising/Counseling	0.62	6.33	5.71
Concern for the Individual	0.62	6.28	5.66
Registration Effectiveness	0.61	6.32	5.71
Service Excellence	0.60	6.18	5.58
Academic Services	0.58	6.16	5.58
Campus Support Services	0.56	5.77	5.21
Campus Climate	0.53	6.22	5.69
Instructional Effectiveness	0.49	6.35	5.86
Student Centeredness	0.46	6.22	5.76
Responsiveness to Diverse Populations	0.10	6.03	5.93

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Individual items the independent caregivers document having the largest gaps between importance and satisfaction include: the campus is safe and secure for all students; the amount of student parking on campus is adequate; and admissions counselors accurately portray the campus in their recruiting practices.

In regard to individual items on the SSI that make up the 12 factors, three of the individual items of least performance gap (least difference in importance and satisfaction) were included in the institutional factor of Student Centeredness for the sub-set of

independent caregiver. These included: most students feel a sense of belonging here; the college shows concern for students as individuals; and the campus staff is caring and helpful. These small performance gap scores indicate that the college is close to meeting the students' perceived expectations in these areas. Items involving practical experiences of the students were included in this list of items of least performance gap as well as the school having a good reputation, the student center, and having overall enjoyable experiences. Range of performance gap score means for these scale items = 0.12 to 0.47.

In comparing the data from the Sub Set group of Student as Independent Caregiver to the overall Sample Set from research questions 1-3, the items that ranked highest for importance for both groups were Instructional Effectiveness, Academic Advising and Registration Effectiveness and the least importance were Academic Services, Campus Support Services, and Responsiveness to Diverse Populations showing each group paralleled each other. Concerning the area of satisfaction, Responsiveness to Diverse Populations, Instructional Effectiveness, and Student Centeredness ranked the highest in satisfaction. For the Sub Set, Academic Services, Safety and Security, and Campus Support Services ranked the lowest in satisfaction but the Original Sample Set ranked Service Excellence, Safety and Security, and Campus Support Services the lowest with the difference being Academic Services ranking 5.58 and Service Excellence ranking 5.54 showing a difference in the ranking of .04 and showing each group basically paralleled each other. Addressing the gaps between what students feel are important and their degree of satisfaction, only very small percentages of the variance in each dependent variable relative to satisfaction could be explained by the independent variables as referenced in Table 24.

Table 24

Student as Independent Caregiver Sub Set verses Overall Sample

Sub Set	Gaps	Overall Sample Set	Gaps
Safety and Security	0.81	Safety and Security	0.85
Admissions and Financial Aid	0.71	Admissions and Financial Aid	0.74
Academic Advising/Counseling	0.62	Registration Effectiveness	0.67
Concern for the Individual	0.62	Academic Advising/Counseling	0.65
Registration Effectiveness	0.61	Academic Services	0.65
Service Excellence	0.60	Service Excellence	0.64
Academic Services	0.58	Campus Support Services	0.61
Campus Support Services	0.56	Concern for the Individual	0.59
Campus Climate	0.53	Campus Climate	0.55
Instructional Effectiveness	0.49	Student-Centeredness	0.51
Student Centeredness	0.46	Instructional Effectiveness	0.50
Responsiveness to Diverse Populations	0.10	Responsiveness to Diverse Populations	0.10

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

In summary, though there was some difference in the ranking of the factors, statistically the Sub Set group did not significantly differ from the overall Sample group in their responses to the importance, satisfaction, or gaps (differences) in the 12 institutional factors.

Delayed Enrollment

The responses to the survey by 4714 students who delayed beginning college (over 25 years old) were analyzed to determine the ranking of the 12 institutional factors by importance, satisfaction, and performance gap data. This demographic group is comprised of

individuals who did not begin college directly after, or soon after, graduating high school. Study respondents reported Instructional Effectiveness, Academic Advising/Counseling, and Registration Effectiveness, as the most important aspects of their technical college experience and the least important were Service Excellence, Campus Support Services, and Responsiveness to Diverse Populations were reported as least important. Range of scale means = 5.75 to 6.32. See Table 25.

Table 25

Sub Set: Delayed Enrollment --FactorRank by Importance

Scale	Importance
Instructional Effectiveness	6.32
Academic Advising/Counseling	6.32
Registration Effectiveness	6.32
Admissions and Financial Aid	6.28
Concern for the Individual	6.25
Student Centeredness	6.20
Campus Climate	6.20
Safety and Security	6.19
Academic Services	6.18
Service Excellence	6.17
Campus Support Services	5.85
Responsiveness to Diverse Populations	5.70

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

Students who delayed beginning college ranked the individual items the highest by importance. These items include: my academic advisor is concerned about my success as an individual; nearly all classes deal with practical experiences and applications; and the quality of instruction I receive in most of my classes is excellent. Also, students who delayed beginning college ranked the individual items the lowest by importance. These items include: new student orientation services help students adjust to college; personnel in the Veteran's Services program are helpful; and the campus provides effective campus support services for displaced homemakers.

Students within this delayed enrollment group were most satisfied with how their college responded to diverse populations as well as instructional services and how they felt students were at the center of the decision making process of the college. The mean scale for this ranged from 5.75- 5.27. See table 26. The individual survey items that students were most satisfied with include: Classes are scheduled at times that are convenient for me; the quality of instruction I receive in most of my classes is excellent; and adequate financial aid is available for most students.

The lowest ranking items regarding satisfaction include Service Excellence, Safety and Security, and Campus Support Services. The individual questions pertaining to the student services areas of the college that garnered low satisfaction with the sub-set included financial aid counseling, academic advisors concern for individual students, general knowledge of campus activities, and having adequate channels with which to lodge student complaints.

Table 26

Sub Set: Delayed Enrollment—Factor Rank by Satisfaction

Scale	Satisfaction
Responsiveness to Diverse Populations	5.80
Instructional Effectiveness	5.79
Student Centeredness	5.67
Registration Effectiveness	5.65
Academic Advising/Counseling	5.62
Campus Climate	5.60
Academic Services	5.55
Admissions and Financial Aid	5.53
Concern for the Individual	5.53
Service Excellence	5.51
Safety and Security	5.30
Campus Support Services	5.27

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

For the sub-set of students who delayed their enrollment, the three factors of greatest performance gap were contained in the Safety and Security, Admissions and Financial Aid, and the Concern for the Individual scales. Individual survey items within the Admissions and Financial Aid factor with the largest gaps include: financial aid awards are announced to students in time to be helpful in college planning; I seldom get “the runaround” when seeking information on this campus; and financial aid counselors are helpful. Within the factor of Concern for the Individual, notification of poor academic performance, along with helpful

career counseling also yielded relatively large performance gaps. Having adequate channels for expressing complaints and the college's expression of concern for the individual student completed the list of the greatest performance gap score items.

In regard to individual questions on the SSI that make up the 12 factors, three of the individual items of least performance gap, which indicates that the college is close to meeting the students' perceived expectations in these areas, pertained to Instructional Effectiveness include: program requirements are clear and reasonable; there is a good variety of courses provided on this campus; and I am able to experience intellectual growth here.

Individual items involving practical experiences were included in this list of items of least performance gap as well as the school having a good reputation, the student center, and enjoyable experiences. Range of performance gap score means for these scale items = 0.53 to 0.89. See Table 27.

Table 27

Sub Set: Delayed Enrollment—Factors by Gaps

Scale	Gap	Importance	Satisfaction
Safety and Security	0.89	6.19	5.30
Admissions and Financial Aid	0.75	6.28	5.53
Concern for the Individual	0.72	6.25	5.53
Academic Advising/Counseling	0.70	6.32	5.62
Registration Effectiveness	0.67	6.32	5.65
Service Excellence	0.66	6.17	5.51
Academic Services	0.63	6.18	5.55
Student Centeredness	0.62	6.32	5.70
Campus Climate	0.60	6.20	5.60
Campus Support Services	0.58	5.85	5.27
Instructional Effectiveness	0.53	6.32	5.79
Responsiveness to Diverse Populations	0.10	5.70	5.80

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

In comparing the data from Sub Set group of Delays Enrollment to the overall Sample Set from research questions 1-3, the items that ranked highest for importance for both groups were Instructional Effectiveness, Academic Advising and Registration Effectiveness and the least importance were Service Excellence, Campus Support Services, and Responsiveness to Diverse Populations showing each group paralleled each other. Concerning the area of satisfaction, Responsiveness to Diverse Populations, Instructional Effectiveness, and Student Centeredness ranked the highest and Service Excellence, Safety and Security, and Campus

Support Services ranked the lowest in satisfaction showing each group paralleled each other. Addressing the gaps between what students feel are important and their degree of satisfaction, only very small percentages of the variance in each dependent variable relative to satisfaction could be explained by the independent variables as referenced in Table 28.

Table 28

Delayed Enrollment Sub Set versus Overall Sample Set

Sub Set	Gaps	Overall Sample Set	Gaps
Safety and Security	0.89	Safety and Security	0.85
Admissions and Financial Aid	0.75	Admissions and Financial Aid	0.74
Concern for the Individual	0.72	Registration Effectiveness	0.67
Academic Advising/Counseling	0.70	Academic Advising/Counseling	0.65
Registration Effectiveness	0.67	Academic Services	0.65
Service Excellence	0.66	Service Excellence	0.64
Academic Services	0.63	Campus Support Services	0.61
Student Centeredness	0.62	Concern for the Individual	0.59
Campus Climate	0.60	Campus Climate	0.55
Campus Support Services	0.58	Student-Centeredness	0.51
Instructional Effectiveness	0.53	Instructional Effectiveness	0.50
Responsiveness to Diverse Populations	0.10	Responsiveness to Diverse Populations	0.10

Note. Source: Georgia Technical College Student Satisfaction Inventory Questionnaire

When comparing the sub-set of students who have delayed enrollment to the sample set, there is a significant difference in the rankings of the gaps in the factor of Concern for the Individual. This factor ranks third with a gap of .72 for the sub-set and eighth for the sample set with a gap of .59. Individual items that make up the factor of Concern for the Individual include: most students feel a sense of belonging here; the college shows concern for students as individuals; my academic counselor is concerned about my success as an individual; faculty are fair and unbiased in their treatment of individual students; counseling staff care about students as individuals. The differences in the mean rankings of the individual items were insignificant except for the question of most students feel a sense of belonging here which had a satisfaction rate 5.22 of in the sub-set and a rate of 5.98 in the sample set.

Research Question 4 Summary

In summarizing and comparing the conclusions of research question 4 results with research questions 1-3 results, study findings revealed that although statistically significant mean differences were identified on several scales with respect to the extent to which students exhibited nontraditional characteristics; only very small percentages of the variance in each dependent variable could be explained by these independent variables. Research question 4 included students from the Sub-Set group of 4,718 and this data is compared to the Sample database of research questions 1-3 which included 13,782 students. The absence of practically significant findings suggested that these nontraditional characteristics had no meaningful relationship to how students assigned importance to various aspects of their educational experience on the technical college campus.

Also, though statistically significant mean differences were identified on several scales with respect to the extent to which students exhibited certain nontraditional characteristics, only very small percentages of the variance in each dependent variable relative to satisfaction could be explained by the independent variables. The absence of practically significant findings suggested the nontraditional characteristics of consideration in this study had no meaningful relationship to how students measured their satisfaction with various aspects of their educational experience on the technical college campus. These findings suggest that the students identified in the Sub Sets as non-traditional and portrayed in research question 4 were not significantly different in their feelings of the importance of and their satisfaction with institutional factors than the findings of the Sample Set group as identified in research questions 1-3.

One area that was significantly different concerning a Sub Set and the original Sample Set is worth noting. For the Sub Set group of Delays Enrollment, the individual factor of Concern for the Individual ranked much higher than it did for the Sample Set. This factor ranked third for the subset with a gap of 0.72 and ranked eighth in the Sample Set with a gap of .59. A larger performance gap indicates that the institution is not meeting student expectations; a smaller performance gap indicates that the institution is doing a relatively good job of meeting expectations.

Research Question 5

In response to research question 5, How do students with different backgrounds explain importance and satisfaction concerning the institutional factors? The researcher discussed topics with students from one of Georgia's technical colleges in two focus group discussions. The major topics included the primary factors of Safety and Security,

Admissions and Financial Aid, and Instructional Effectiveness among others. These topics were determined by analyzing the data in research questions 1-4 and determining the factors with the greatest gaps between importance and satisfaction and the least gaps between importance and satisfaction. Each of the topics used by the researcher had statistical analysis data for the individual questions that comprised the institutional factor. The factor of Safety and Security is somewhat of an anomaly. This factor had the largest gaps between importance and satisfaction but the factor did not rank high on the importance scale overall ranking eighth out of twelve scales. Administrators and decision makers are cautioned about relying solely on data from the gaps category. Noel-Levitz warns that though the gaps may be high, caution must be used and the overall ranking of importance must be analyzed as well (2006).

For the focus group discussion topics, the researcher focused upon the two extremes in the ranking of the institutional factors; those with the largest gaps and those with the smallest gaps. The largest gaps signified factors that students feel are important but are not satisfied. These are factors that administrators and institutions may need to address for ascertaining the source of discontent as well as for correction. The smallest gaps signified the factors that students feel are important and they are satisfied. These are factors that administrators and institutions may wish to address for internal praise and external promotional reasons.

Within the Student Satisfaction Inventory, there are six specific items in the institutional factor of Admissions and Financial Aid with the greatest gaps. The items are:

- Classes are scheduled at times that are convenient for me.
- I seldom get the "run-around" when seeking information on this campus.

- Financial aid awards are announced to students in time to be helpful in college planning.
- The career services office provides students with the help they need to get a job.
- I am able to register for classes I need with few conflicts.
- Financial aid counselors are helpful.

Conversely, there were six specific items that had the least gaps and these are located in the institutional factor of Instructional Effectiveness. The items are:

- Institution's commitment to part-time students.
- Institution's commitment to older, returning learners
- Faculty are usually available after class and during office hours
- Faculty care about me as an individual
- I am able to experience intellectual growth here.
- Nearly all classes deal with practical experiences and applications

Since each of the institutional factors use multiple items and statements on the Student Satisfaction Inventory, the researcher compiled these individual statements and items and formulated them into subtopics for discussion in the focus groups

The importance of the focus groups was to provide more depth to the quantitative findings of research questions 1-4. In response to a need felt by the researcher to elicit honest, descriptive data from students about problematic issues related to the quality of instruction and non-instructional services, the researcher formed two focus groups to discuss themes. The discussion guides were designed to collect information to increase understanding of the concerns of non-traditional students, including reasons for attending

Georgia's technical colleges, strengths and weaknesses of the colleges, and the characteristics of excellence in both the instruction and non-instructional services domains.

To assist in explaining the quantitative data from the entire population, the researcher gathered data from the Sample Set and the Sample Sub-Set to compare and contrast items from groups of non-traditional students to the entire population of 13,782. The researcher selected a random sample of students who matched the criteria of non-traditional students from which 18 participants were recruited for each of 2 student focus groups and 10 students agreed to participate. The student groups were designed to represent a cross-section of the student body, including the Sub-Set population as described as non-traditional students. The researcher conducted the focus groups during a two-week period in November 2006.

Focus Group Characteristics

The focus group discussions generated many ideas that paralleled the overall study findings but other themes emerged as well. To help further explain the focus group conversations, the researcher identified several words, phrases, quotes, and conversations from the members of the groups. All of the participants (10) were over the age of 25 which met the non-traditional characteristic of delays enrollment and all participants (10) lived outside of the home of their parents which met the characteristic of being considered independent caregiver. Of the ten students, there were five males and five females. From these ten, there were five black, four white, and one Hispanic. Concerning attendance of the ten students, four attend part-time while six attend full-time. In the area of employment, seven of the ten students work part-time and three students work full-time. To aid in the process of which respondent said what, the researcher further coded the participants as follows in Table 29.

Table 29

Focus Group Characteristics

	Descriptor	Quantity		Code
Gender	Female	5		F
	Male	5	Total= 10	M
Race	Black	5		B
	White	4		W
	Hispanic	1	Total= 10	H
Attendance	Attends part-time	4		APT
	Attends full-time	6	Total= 10	AFT
Employment	Works part-time	7		WPT
	Works full-time	3	Total= 10	WFT

As an identifier, each student was coded with a letter and descriptors follow each letter represented. Students are grouped as shown in Table 30.

Table 30

Focus Group Descriptors

Student	Code
Joyce	F1, B, APT, WPT
Rachel	F2, B, APT, WPT
Debbie	F3, B, AFT, WPT
Lauren	F4, W, APT, WPT
Johnnie	F5, W, AFT, WFT
Calvin	M1, B, AFT, WPT
Joe	M2, B, AFT, WFT
Bobby	M3, W, AFT, WPT
Mike	M4, H, AFT, WPT
Mark	M5, B, APT, WFT

The focus group conversations are presented using the above coding as the identifiers.

From the focus group discussions, some overall generalizations regarding the patterns of student responses by demographic subgroup are offered for the three areas of focus selected for this portion. These three areas, in regards to the institutional factors, were Safety and Security, Admissions and Financial Aid, and Instructional Effectiveness. As students were getting acclimated to the surroundings and before the discussion addressed institutional factors concerns, students talked openly about why they chose to attend a technical college. Interestingly, these three factors are part of processes or procedures which relate directly to the enrollment process. Students who become frustrated by their inability to register, unable to get appropriate help with financial aid or those who experience “run-around,” as described by Rachel may not enroll at all. At the minimum, it sets a negative tone for their experience at the colleges. Another unintended side effect of attracting students to a college, according to Calvin in a focus group, is that “I attend full time and when students are stuck and have to take core classes because they cannot get into their program classes and then are not successful – this leads to me not wanting to come here at all”.

As a whole, the students in the focus group reported choosing to attend one of Georgia’s technical colleges for four main reasons: programs offered; proximity to home; quality in relation to cost; and proximity to related jobs. Students Joyce, Rachel, Calvin, Joe, Bobby, and Mark all stated that their primary expectations for the colleges included providing an education as well as the opportunity to apply their education to real-world situations. This finding was cross-sectional to all of the students, regardless of demographic descriptors and thus was deduced that this was an important factor to everyone. A theme that emanated from the conversations was that students want programs that are meaningful to

them whereby they can apply the applications learned into jobs that they currently have or other jobs that are in the immediate area. Overall, the students wanted to be trained for jobs that were in the geographic area, not have to drive far to class, and not have to move to gain employment.

Additionally, students Rachel, Debbie, Lauren, Johnnie, and Mike expected a knowledgeable, interactive, and caring faculty. Joyce, Rachel, and I stated that they needed assistance from instructors with the acquisition of communication skills, guidance in course selections and career exploration, and the development of other life skills, such as independence and time management. These students who emphasized these statements were predominantly female. Several areas of institutional characteristics that students felt were important were not part of the SSI but students felt were important to them and were also greatly satisfied were identified including:

- Preparation for life in the outside world (time management skills, etc.)
- Up-to-date software, and email and Internet access
- Faculty current and knowledgeable in their field
- Hands-on research opportunities for some students
- Faculty showing a true concern for the individual students

Though the researcher led the conversation with general trends from the Sample and Sub Set groups, the focus groups expanded these ideas with their own concerns. All students commented on the following:

- Joyce and Lauren stated that there needs to be more opportunities for communication and interaction with the faculty and staff. Lauren stated that, "I work part time and

come to school in the mornings. I see my instructor about five minutes a day because they or I are always in class”.

- Lauren, Johnnie, and Mark stated that there is inadequate space and facilities designed for interaction between themselves and faculty and staff. Joyce and Rachel stated that there are no rooms to “just hang out with teachers—to talk about social issues and not school work.” This was a concern for these students as they attend part time and at night.
- Class sizes were important to all students. Mark stated that they had been in some classes with 1 or 2 students. “When one is absent, we basically cancel class for the day.” Calvin stated that “classes should not even make unless there is a minimum amount of students, like 5.” Calvin stated that this can not work at times because “some people may need one class to graduate so they offer it”
- Unavailability of courses was a described by the majority as a problem. Lauren, Johnnie, and Mike stated that since they attend at night, classes are few and scattered. Lauren stated that this meant that “classes may be offered one quarter but you do not know when they may be offered again so you can not plan too well for other quarters.”
- Student employment taking time away from studying was a concern for most members. All group members were employed at least part time. Joyce, Rachel, Debbie, Calvin, Joe, and Bobby were each employed in areas that somewhat paralleled their major. Johnnie, Mike, and Mark were all working in unrelated jobs. Johnnie stated that “I have to work to bring in money to the house.” Mike stated that their spouse worked “but has been laid off so I have to work full time and I don’t

want to have to quit school. I am in cosmetology and it's too hard to stop and then try to start over again.”

- Faculty offices and time of office hours became a small topic of conversation (this parallels this first point of conversation). Joyce stated that most instructors have set working hours and must arrive at a certain time and leave at a certain time, like 8-5, but most instructors do not have a free period or an office hour. This leaves little time for students to communicate and interface with faculty outside of the classroom. Part-time and night students Joyce, Rachel, and Mark felt strongly about this topic.
- Academic advising was discussed in great length. Most students felt that advising should be more than telling what classes to take and when. Joe felt as though the advisor “should be helping me find a job.” When asked if “advisement” was explained to them in detail, all students said that it was not discussed at all
- Campus cohesiveness. One department is unaware of what another department is doing. Debbie stated that “someone in admissions told me to see a person in career placement about a job opening. I asked my instructor who the person is and my instructor said she didn't know we had a career placement person.”

Three main topics were discussed within the focus groups and from these conversations, two general areas of concern arose from the two focus group discussions that parallel the overall topics originally addressed by the quantitative data. Though many topics were mentioned and touched upon in the conversations, the general areas of safety, student services, and faculty generated the most conversation and resulted in the emerging themes.

Safety and Security

The researcher began the conversation with the topic of safety for two main reasons. The students in the focus groups were recruited with the understanding that they would be discussing institutional factors, those that an institution can control, and how students' perceived the importance of these factors coupled with the levels of satisfaction the students have with these factors. The conversations began with the safety topic because it ranked the highest in the gaps, the difference between importance and satisfaction, in the quantitative data analyzed. Secondly, the researcher felt that students would not be thinking of this factor predominately and would have fewer preconceived biases thus making their answers more authentic.

The Safety and Security factor assesses students' feelings of personal safety, parking facilities, and responsiveness of security workers to student security and emergencies. Individual items include: security staff are helpful; security staff respond quickly in emergencies; parking lots are well-lighted and secure; the campus is safe and secure for all students; and the amount of student parking on campus is adequate.

Campus safety and security has been addressed in the literature considered by some researchers as greater student concern since September 11, 2001 (Zis, 2002). Manzo (2001) explained the importance of institutions taking a proactive position concerning safety and security on the college campus. Providing students with information about campus safety so that they can consider what precautions are necessary in protecting themselves and their property on the college campus is critical. Crime, safety, and security are typically more pronounced issues for urban institutions, (Manzo, 2001).

The researcher began the conversation by stating; “let’s talk about safety and security issues.” Rachel immediately stated, “What about it?” Initially, the students did not have many comments concerning safety. The researcher attempted to initiate comments by stating the items that comprise the factor.

- Security staff is helpful. The researcher stated that some of the items that describe this factor include security staff are helpful and security staff respond quickly in emergencies. Debbie stated that she did not know that there were safety personnel. A, Lauren, Johnnie, and Calvin all concurred that they were unaware of any type of security staff or anyone else who handled such items. The researcher stated: “talk to me about security staff.” Calvin stated that it must be obvious that we do not have one and must not need one.
- Parking lots are lighted well. The researcher then stated that other items making up the Safety and Security factor parking lots are well-lighted and secure and the amount of student parking on campus is adequate. Joyce stated that these were two different aspects. Joe stated that he could see how they were connected. If there was not enough parking and people had to park far from a building, they would want the area well lit. Debbie and Bobby agreed with the point. Lauren stated that parking was not a problem and there is always a place to park close to a building.
- The campus is safe and secure for all students. Students do not feel any immanent threats to their personal safety or to the security of the personal property such as their vehicle and its contents. Debbie stated that she takes her purse wherever she goes on campus and other female students stated that they never considered anyone bothering

their purses as a problem or even a threat. Males made no comments about the personal property.

After the conversation had diminished, the researcher told the groups that the Safety and Security factor ranked the highest when it came to the gaps in every database and sample group that had been analyzed but the focus groups did not seem to feel that the factor was very important and that their satisfaction level seemed to be positive. Mike stated, “Since we live in a smaller town, I guess things like this may not be as much of a problem like it may be in Atlanta, Macon, or Savannah”. Lauren stated that she was female and not that it mattered but she never even thought about safety. Johnnie concurred and stated that she does not lock the doors to her car while Joe stated that he did not either. Lauren stated that all students and staff had to wear identification badges and that assisted in her feeling secure.

Debbie asked why the factor ranked so high. The researcher explained that the research being conducted focused of the differences, or gaps, between factors that students felt were important and also how satisfied the students were with how the institution met the needs of the students’ in addressing the factors. Johnnie asked if the Safety factor had the largest differences and the researcher stated that it did. Joe stated that just because the gap was large, it did not necessarily mean that people thought it was important to begin with. Johnnie asked what that meant and Joe stated that just because the gap was large, it did not mean that people rated it high; only that their satisfaction level was low. The researcher told the group that Johnnie was exactly correct and in essence, that was the case in this study. The gap was large but, the item was not high in importance overall.

The students felt that safety and security were very important and they were satisfied with the aspect on this campus. The researcher explained that two of the questions on the SSI

survey dealt with security staff and most of Georgia's technical colleges do not employ such staff. Because of this, specific answers by students concerning these two questions may have been skewed by students marking low satisfaction rates for security staff and the institution not having any staff. Because of this, the overall rating of satisfaction may have been skewed lower than it actually is. Students responded that they understood how this could happen but at their campus, they were satisfied with the area of safety and security.

The researcher stated that one misnomer with the research being performed, as well as the Noel-Levitz survey in general, was that the entire analysis of each factor had to be considered-- the importance, the satisfaction, and the gaps—so as not to skew the results. If all of the variables were not considered together, incorrect decisions may be made.

Student Services

To begin the conversation, the researcher asked if students could identify the institutional factors that most students felt were very, if not the most, important but the one that they were least satisfied with. The researcher showed the list of 12 institutional factors to the groups and in unison, most said that the area “had to be admissions.” The researcher stated that the factors of Registration Effectiveness and Admissions and Financial Aid, both located in the student services area of technical colleges, consistently, in all demographics—the sample set and sub-sets-- ranked high in importance, low in satisfaction, and thus had a wide gap (difference) between the two variables. Some of the major ideas that surfaced from the conversations include the following:

- Helping me in selecting the best programs for my needs. Students Joyce, Lauren, Calvin, and Mike all expressed concerns about the student services area and their own academic goals. Mike stated, “When I came up to apply for cosmetology, I was not

told anything about a waiting list.” Lauren concurred and added, “no one told me that I had to wait until a certain time of the year, I think fall, to begin the program. If they would have told me that, I might have looked to go somewhere else.” Mark followed with, “they put me in a math and English class and I thought I was good to go. I didn’t know until I was done with those classes that I was not even in the program yet.”

- Pre-admission requirements and prerequisites. Lauren and Mike stated that no one told them that would have to have minimum requirements to enroll in a major. “I looked at my first classes on my schedule and all three were in developmental. I’m not saying that I didn’t need them, I’m just saying no one told me that I needed the classes or that I was in them.”
- Application deadlines- Rachel and Calvin stated that they were told by someone “on the phone” that they could apply anytime, even after classes started. Rachel stated that she came the day before classes began to register and was told that registration was still open but she should have applied a month before. “No one told me there was a cut off date to apply”, she said. Calvin stated that she was already accepted but when she came to register, her advisor was off that week and “someone from admissions just put me in some classes. They said I needed to have been there the week before to see an advisor.”
- Financial aid and fee payments-This area was the major concern of all group members. All group members receive the Georgia HOPE Grant and 8 of 10 receive PELL Grants. Neither of these grants must be repaid, but students must complete paperwork in a timely manner. Students are told about yearly financial aid

registration at orientation and according to the students, no other time. “I did the FASFA (yearly federal financial aid application) thing when I applied which was in March. When I went to register for summer quarter, I was told that I had not completed my FASFA. I said that I did that in March and they said I have to do it every year and the year ended in June’, stated Joe. Joyce stated, “they said that to me too, that I had to complete it (FASFA) by June because the year ended in June. No one told me that.” Rachel, Debbie, and Mark stated that they were told that they had to apply every year but not told the year began July 1st so they missed the cutoff time. Lauren stated, “I registered one quarter and went to class for almost two weeks before I could get my books. My financial aid package was not complete so I could not charge my books in the bookstore. The instructor made me copies of what they could and gave me their own notes but I still got behind because I could not get my books”. Debbie concurred with “I went to get my books at the end of the quarter for the next quarter and I was told that I could not get my books because they could not charge anything to my financial aid. I told them that I would pay cash for the books but I was told that they could not sell books to me, even for cash. I said that was just going to order the books online and it is ridiculous that I couldn’t buy a book from the bookstore, even with cash.”

- Friendliness and caring. Johnnie stated, “I have been out of school a long time. I knew that I needed to go to college to help me get a good job. I am working full time and needed to go to school full time too. I called the first time and asked to speak to someone about classes in accounting. I was told the instructor did not have a phone; I could leave a message or call back. I was nervous anyway but the person on the

phone didn't help any". Debbie, Lauren, and Mark all concurred and Debbie stated, "I came up here to ask about taking classes and the people in the front told me I could get a card that listed the classes I needed—that's all they said." Mark stated, "An instructor just happened to be in the office when the admissions people said they didn't know what classes I needed to take and she told me to come to her office and talk with her. If I did not go and talk with her (the instructor), I can tell you I would not be here now."

Overall, students in both focus groups were in agreement on several areas identified for needing improvement. Rachel and Lauren commented that class size (size of the room) was not conducive to communication and interaction. This was particularly true when discussing computer and lab accessibility. Students who were in the non-technical areas, stated that there are not many opportunities to apply knowledge through internships, co-ops, and labs. Johnnie stated that the program they were in has no on-the job training areas and they feel that these opportunities are important. On a positive note, Bobby and Mark stated that while participating in academic advising, they felt an "acceptance of others" from the faculty, meaning the faculty members were very helpful and non-judgmental of students' personal lives and guided them through all of their paperwork.

Most students agreed there is great value in a well-rounded technical education. Johnnie stated that the reason that she attend is "the quality of instruction and classroom experiences and the communication between themselves and faculty". Rachel stated that it is important to receive feedback on their progress but it has to be a much deeper explanation than just a grade. Four members thought the institution needed a full time career counseling service while two members felt this is the faculty's responsibility. These areas, where there

were inconsistencies in student focus group discussions, provide the basis for understanding the wide variety of concerns by the non-traditional student base.

Instruction

The researcher also pursued the theme that ranked high in importance, high in satisfaction, and thus a low gap (difference between the two variables) within the Sample group and the Sub Set group as to what constituted for them a high quality of instruction and academic advising. When talking about their instructors, the focus group students cited the following expectations:

- Effective communication, including the teaching skills necessary to impart knowledge to students, make interesting class presentations, interact with students during class, use practical application of theory in class, and communicate clearly.
- Debbie stated that they appreciated caring and understanding, including compassion, flexibility, concern for student progress, and genuine interest in student success.
- Rachel, Debbie, Joe, and Mike all felt that instructors have a great amount of enthusiasm, including a desire to teach, enjoyment of the subject, and enjoyment of the teaching process. Joyce and Mark commented that they did not experience these same things but added that they attend at night and have adjunct faculty.
- All participants thought that instructors had vast amounts of knowledge, including being well-versed in their subject matter, having information to answer readily students' questions, and being up-to-date with information.
- Joyce, Debbie, Lauren, Joe, and Mike all stated that interacting with their instructors was very important to them. Even if class time does not permit much one on one

conversation, instructors take time in between classes to talk with the students and not only the advisees.

Finally, the students also cited three major traits that they expected from instructors: caring and understanding, knowledgeable about the subject matter being taught, and availability on a regular basis. Since most students work have families, and attend school, caring and empathetic instructors are appreciated. Students want to have instructors who are not just subject matter experts, but who can relate their own personal experiences to the classroom lectures and demonstrations. Because of the lack of formal gathering places such as lunchrooms or student centers, students need for instructors to be available before and after classes and during typical non-class times such as lunch and after the last classes of the day.

Research Question 5 Summary

Students report that they enjoy their experience at the college and feeling welcome after they get acclimated to the surroundings. As examples, for safety concerns, students want well-lit parking lots and are satisfied with the current conditions, but overall they do not feel the factor is of great importance. This may be because the majority of students attend during the day and having well-lit parking lots does not affect them. Concerning student services, students in the focus groups stated some advisors are good while others provide incorrect information. On the other hand, some students had no idea who their advisor was and had not used academic advising. The student services areas including recruitment, admissions, financial aid, and initial course offerings settled at the top of the list of concerns. The findings from the focus group results concerning faculty parallel the sentiments of the sample group and the sub-set group. Faculty caring and responsiveness rose to the top of the list of

items that students were satisfied with some students commenting that the instructors are the only reason that they continue to attend, in spite of how they are treated in the student services department.

Summary

The purpose of this study was to analyze the perceptions of technical college students relative to a broad range of aspects of their educational experiences on the technical college campus. More specifically, student perceptions of importance and satisfaction were of interest in the areas of academic advising and counseling effectiveness, academic services, admissions and financial aid, campus climate, campus support services, concern for the individual, instructional effectiveness, registration effectiveness, responsiveness to diverse populations, safety and security, service excellence, and student-centeredness.

In question 1, findings indicated that study respondents want faculty to understand each student's unique life circumstances, to be fair and unbiased in their treatment of individual students, and to take into consideration student differences as they teach their course. Students want to be able to register for classes with few conflicts, they want classes to be scheduled at times that are convenient, and they require the personnel involved in registration to be helpful. As far as advisement, students want their academic advisor to be approachable, help them set goals to work toward, and be concerned with the student's success as an individual.

Conversely, students do not want to get the run around when seeking information on the campus, they want to know what is happening on the campus, and need channels for expressing complaints readily available. Also, students want the college to show concern for students as individuals, the campus staff to be caring and helpful, as these things make it

is an enjoyable experience to be a student on campus. This experience, according to students, is derived from a campus that demonstrates a commitment to meeting the needs of part-time students, evening students, and older, returning learners.

In question 2, in terms of satisfaction, study findings indicated that students were most satisfied with the fact that students are made to feel welcome on the campus as the campus staff is caring and helpful which makes it is an enjoyable experience to be a student on the campus. Students are satisfied with the ability to register for classes with few conflicts, know the personnel involved in registration are helpful, and classes are scheduled at times that is convenient. The most important specific items that students were satisfied were how important students thought it was that the campus demonstrates a commitment to meeting the needs of part-time students, evening students, and older, returning learners.

Conversely, students were least satisfied with the personnel involved in registration being helpful, the library staff is being helpful and approachable, along with the bookstore staff being helpful. Students were not satisfied in how the career services office provided students with the help they need to get a job, or there were adequate services to help them to decide upon a career. Students did not feel that parking lots are well-lighted and secure, the campus was safe and secure for all students, and there is adequate parking.

For research question 3: To what extent do satisfaction and importance differ with the twelve institutional factors? Students attributed great importance to registration and instructional aspects of their experience on the technical college campus and that they were relatively satisfied with these aspects as well-evidenced by relatively small (positive) performance gap measures. Student-Centeredness and Campus Support Services yielded the lowest performance gap measures, but overall, student did not consider these important. One

involved the Safety and Security concern. The Safety and Security scale measures the campus responsiveness to students' personal safety and security. Study respondents attributed high importance to Safety and Security; however, they rated this aspect least in satisfaction yielding the greatest performance gap measure of all scales.

For research question 4: To what extent to importance and satisfaction vary by different characteristics of non-traditional students? The study findings indicated that statistically significant differences did exist among students groups relative to the extent that they exhibited characteristics deemed non-traditional. Class load, independent caregiver, and employment status produced no statistically significant findings relative to the scale areas of interest for this study. In one area, the non-traditional students characterized as delayed enrollment, reflected a significant difference in the gaps of the 12 factors when compared to the original sample base regarding the Concern for the Individual factor.

As far as importance, satisfaction, and the gaps between for the 12 institutional factors, non-traditional students who were labeled as having part-time class load had no difference in preferences than students from the entire database. Regarding importance, satisfaction, and the gaps between for the 12 institutional factors, non-traditional students who were labeled as independent caregiver had no difference in preferences than students from the entire database. With regard to importance, satisfaction, and the gaps between for the 12 institutional factors, non-traditional students who were labeled as full-time employed had no difference in preferences than students from the entire database. When analyzing the non-traditional characteristic of delayed enrollment, the institutions' student services department yielded results that indicated significant mean differences in importance and satisfaction scores. Overall, with regard to importance, satisfaction, and the gaps between for

the 12 institutional factors, non-traditional students who were labeled as delayed enrollment had no difference in preferences than students from the entire database. In both databases, the 12 factors ranked approximately the same while the gap differences in the sub-set of part-time enrolled and the overall sample set paralleled in ranges except within the factor of Concern for the Individual.

For research question 5: How do students with different backgrounds explain importance and satisfaction concerning the institutional factors? Two focus group discussions were performed, recorded, transcribed, coded, and the data was disaggregated. Three major themes arose from discussions with students who made up two focus groups.

The Sample Set and the Sample Sub-Set of respondents attributed high importance to this scale; however, they rated this aspect least in satisfaction yielding the greatest performance gap. The focus group's sentiment was a bit different as they were basically satisfied with the safety and security of the campus but overall, they did not regard the items with high importance. The focus groups were designed to explain the quantitative finds and in this case, the focus group explained that areas within the Safety and Security factor that dealt with security staff was not applicable as there were no such staff, Sample Set and Sample Sub-Set answers may be skewed by answers that were incorrect.

Students identified how vitally important the areas of admissions and financial aid are in the retention efforts of non-traditional students. Student's felt that though there was adequate financial aid is available for most students, the financial aid awards are not announced to students in time to be helpful in college planning, and that overall, financial aid counselors are somewhat helpful but could be do more.

The last, and maybe most important theme that arose from the focus group discussions, was in the area of the importance of the faculty. The focus groups cited that regular faculty-student contact as the most important factor in student involvement and motivation and can provide students with the needed support to get through the tough times and keep working toward academic success. The focus groups also felt that such survey items as the faculty understands the student's unique life circumstances and that faculty are fair and unbiased in their treatment of individual students were important to them and they were satisfied with the treatment they were receiving. The researcher discussed the summary, conclusions, and implications of the findings of this study in Chapter 5.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Introduction

Colleges measure satisfaction for a number of reasons. A major reason is that student satisfaction plays an important role in student retention, engagement, learning, and success. Institutions that measure satisfaction can systematically improve the quality of their undergraduate experience, and can offer more educational value to students and families. In addition to meeting demands for accreditation and accountability, research has shown that colleges which measure (and increase) student satisfaction benefit from increased student engagement and retention, higher graduation rates, lower loan default rates, and higher alumni giving rates (Schreiber & Shinn, 2003; Stover, 2005). Technical colleges have a vested interest in understanding their students' satisfaction with their programs, instruction, and ability to transfer knowledge to their working environments. The competition for students has never been greater (Schreiber & Shinn, 2003).

The purpose of this study was to examine the relationship of the students' identification of importance and satisfaction with institutional factors of Georgia's technical colleges. To assure that a technical college education will remain attractive as a viable option for students pursuing post-secondary instruction, college administrators are cognizant and focused upon maintaining the level of enrollment within the colleges that currently exists. The researcher found that many studies had been based on 12 major factors from within institutions, and these studies used a database from the Noel-Levitz company. The researcher then purchased two sets of databases from Noel-Levitz that included data from students enrolled Georgia's technical colleges who took the Noel-Levitz Student Satisfaction

Inventory in 2005. Noel-Levitz surveys document students' satisfaction with and their designated importance of twelve institutional factors. The factors are: Academic Advising Effectiveness; Campus Climate; Campus Support Services; Concern for the Individual; Instructional Effectiveness; Admissions and Financial Aid Effectiveness; Registration Effectiveness; Responsiveness to Diverse Populations; Safety and Security; Service Excellence; Student Centeredness; and Academic Services.

The first data set included over 13,700 students from 16 technical colleges. The second data set was a sub-set of 4,718 students from the original data, but specifically included the results from students who fit the demographic descriptors of non-traditional students (delayed enrollment status, employment status, enrollment status, and dependent care responsibilities). The researcher then analyzed the data to determine which of the 12 institutional factors students designated most important, the factors with which students were most satisfied, and the differences, or gap, between what students felt were important and how satisfied students were with the particular factors. The researcher conducted the same analysis on the original sample set and the smaller sub set measuring importance, satisfaction, and the gaps of the institutional factors. To give more meaning to the analysis and to add depth to the findings, the researcher formed two focus groups and discussed the trends and themes from the data analysis. The themes and trends that emerged encompassed safety and security issues, the colleges' student services department, and students' overall impressions of the faculty.

The researcher used the findings related to each research question to answer the overarching question, what is the extent of the differences between students' perceived

importance of and satisfaction with institutional factors within Georgia's technical colleges, and the sub-questions:

1. To what extent is each of the twelve institutional factors important to students?
2. To what extent are students satisfied with each of the twelve institutional factors?
3. To what extent do satisfaction and importance differ with the twelve institutional factors?
4. To what extent to importance and satisfaction vary by different characteristics of non-traditional students?
5. How do students with different backgrounds explain importance and satisfaction concerning the institutional factors?

The researcher also used the findings to each question to draw conclusions and consider implications for the study.

Findings

The findings of this study are reported from the analysis of the data from the Sample Set, the Sample Sub-Set, and two focus group discussions. This analysis also includes the themes and trends that surfaced during discussions within the two focus groups. First, the findings are reported in and then the researcher discusses the findings in relation to prior research.

Students reported Instructional Effectiveness, Registration Effectiveness, and Academic Advising and Counseling, as the most important aspects of their technical college experience. The most important specific items related to Instructional Effectiveness were: faculty understands of student s unique life circumstances; faculty is fair and unbiased in their treatment of individual students; and faculty takes into consideration student differences

as they teach their course. Specifically, being able to register for classes with helpful personnel with classes that are scheduled at times that are convenient was most important. The most important area related to Academic Advising and Counseling was having an academic advisor who is approachable, helpful in setting goals, and is concerned about my success as an individual.

Conversely, Service Excellence, Student-Centeredness, Responsiveness to Diverse Populations was reported as least in relative importance. Within the area of Service Excellence, students do not want to get the run around when seeking information, they need channels for expressing complaints, and generally, they want to know what is happening on campus. The most important areas related to Student Centeredness that students felt as important is that the college shows concern for students as individuals, the campus staff is caring and helpful, and overall, it is an enjoyable experience to be a student on the campus. The most important items related to Diverse Populations that students thought was important was that the campus demonstrates a commitment to meeting the needs of part-time students, evening students, and older, returning learners.

Together, these six areas represent several facets of the students' technical college experiences such as the registration process, the academic advising programs, and advisors and counselor's knowledge. Faculty competence, approachability, and personal concern for students exposed to these services are important to all students.

In question 2, in terms of satisfaction, study findings indicated that students were most satisfied with Student Centeredness, Registration Effectiveness, and Diversity issues. The most important specific items that students were satisfied which related to Student Centeredness at the fact that students are made to feel welcome on this campus, the campus

staff is caring and helpful, and students find it to be an enjoyable experience to be on the campus.

The most important specific items that students were satisfied which related to Registration Effectiveness were that they were able to register for classes that they need with few conflicts, the personnel involved in registration are helpful, and classes are scheduled at times that are convenient for them. The specific items that students were satisfied which related to Diversity issues included how important students thought it was that the campus demonstrates a commitment to meeting the needs of part-time students, evening students, and older, returning learners.

Conversely, students were least satisfied with Service Excellence, Campus Support Services, and Safety and Security. Students indicated they were least satisfied with area in Service Excellence such as the personnel involved in registration being helpful, the library staff being helpful and approachable, as well as the bookstore staff being helpful. The particular items that students showed the least satisfaction with related to Campus Support Services were that the career services office does not provide students with the help they need to get a job, that there are adequate services to help students decide upon a career, and the lack of childcare facilities are available on campus. The specific items that students showed the least satisfaction with related to Safety and Security were that the parking lots are not well-lighted and secure, the campus is safe and secure for all students, and the amount of student parking on campus is adequate.

These six areas of interest involve services students utilize to achieve their academic goals, including the library, computer labs, tutoring, and study areas, the registration process, students academic experiences, the curriculum, and the campus

commitment to academic excellence, the campus responsiveness to students personal safety and security, the quality of support programs and services, and the academic advising program, evaluating advisors and counselors knowledge, competence, approachability, and personal concern for students exposed to these services.

In question 3, performance gap data for this study indicated that students attributed great importance to registration and instructional aspects of their experience on the technical college campus and that they were relatively satisfied with these aspects as evidenced by relatively small performance gap measures. Student-Centeredness and Campus Support Services yielded the lowest performance gap measures, but minimal importance was also reported to these concerns by study respondents. Notable findings in performance gap measures involved the Safety and Security concern. Study respondents attributed importance to safety and security in general; however, they rated this aspect least in satisfaction.

Regarding research question 4: To what extent do importance and satisfaction vary by different characteristics of non-traditional students? The absence of practically significant findings suggested that these non-traditional characteristics had no meaningful relationship to how students assigned importance to or their satisfaction with various aspects of their educational experience on the technical college campus. The non-traditional characteristics of: works full-time (35 hours or more per week) while enrolled in coursework, and the descriptor of: is considered financially independent for purposes of determining eligibility for financial aid (does not live with parents), produced no statistically significant findings relative to the factors or the individual item scale areas of interest for this study.

The sub-set of delays enrollment (did not enter postsecondary education in the same calendar year that he or she finished high school) produced one area that was significantly

different concerning the sub-set and the original sample set that is worth noting. For the sub-set group, the individual factor of Concern for the Individual ranked much higher than it did for the Sample Set. Students who delay enrolling in college directly after high school long for a sense of belonging and that the college shows concern for them as individuals. These students are in need of academic counselors who are concerned about student's success as individuals and that the faculty is fair and unbiased in their treatment of individual students. The greatest difference in satisfaction between the Sample Set and the sub set of delays enrollment was within the area of students feeling a sense of belonging at the institution.

The sub-set of attends part-time produced one area that was significantly different concerning the Sub-Set and the original Sample Set that is worth noting. For the sub-set group, the individual factor of Responsiveness to Diverse Populations ranked much higher than it did for the Sample Set. Within this factor, both groups felt that the factor was important, but concerning satisfaction, the sub-set was far less satisfied with how the colleges were meeting the needs of diverse populations than the Sample Set. Individual items that the sub-set were not satisfied with include the fact that the campus demonstrates a commitment to meeting the needs of part-time students, evening students, older-returning learners, under-represented populations, commuters, and students with disabilities. The Sample Set ranked these items high in importance and high in satisfaction while the Sub Set ranked the items high in importance yet low in satisfaction.

In question 5, three major themes arose from comments with students who made up two focus group discussions. These themes were based upon the factors of safety and security, the colleges' faculty, and the colleges' student services areas. The first major theme arose from the data sets and was introduced by the researcher for discussion. This theme

entailed the factor of Safety and Security as this factor produced the largest gap between what students felt were important and their satisfaction with the factor. The second major theme evolved from the student discussions and entailed the area of institution's student services department and how vitally important the areas of Admissions and Financial Aid are in the retention efforts of non-traditional students. Students had multiple concerns about this department that included the admissions process, financial aid qualifications, and career placement services. The last major theme that arose from the focus group discussions was in the area of the importance of the faculty. The focus groups agreed that regular faculty-student contact is the most important factor in student involvement and motivation and can provide students with the needed support to get through the tough times and keep working toward academic success.

In summary, the researcher reported the following findings:

1. Students reported Instructional Effectiveness, Registration Effectiveness, and Academic Advising and Counseling, as the most important aspects of their technical college experience and Service Excellence, Student-Centeredness, Responsiveness to Diverse Populations was reported as least in relative importance.
2. Study findings indicated that students were most satisfied with Student Centeredness, Registration Effectiveness, and Diversity issues while students were least satisfied with Service Excellence, Campus Support Services, and Safety and Security.
3. Performance gap data for this study indicated that students attributed great importance to registration and instructional aspects of their experience on the technical college campus and that they were relatively satisfied with these aspects.

Factors of Student-Centeredness, Campus Support Services, and Safety and Security yielded the lowest performance gap measures.

4. The absence of practically significant findings suggested that non-traditional characteristics had no meaningful relationship to how students assigned importance to or their satisfaction with various aspects of their educational experience on the technical college campus except in two areas. The Sub-Set of delays enrollment indicated the individual factor of Concern for the Individual and the Sub-Set of attends part-time the individual factor of Responsiveness to Diverse Populations more different than the Sample Set.
5. Three major themes arose from comments with students who made up two focus group discussions. These themes were based upon the factors of safety and security, the colleges' faculty, and the colleges' student services areas.

Discussion of Findings

In the literature concerning students' perceptions of the importance of institutional factors and their satisfaction with these factors, there was a void that addressed 2-year college students and in particular, Georgia's technical colleges. There was no research that dealt with the institutional factors, students' perceptions of the importance of these factors, students' satisfaction with these factors, or the differences (gaps) between what students felt are important and their satisfaction with how the institution was fulfilling their satisfaction needs.

The researcher documented data from the Georgia Department of Technical and Adult Education (DTAE) that provided the statistics (spring quarter, 2005) for a total of individual institution's student population. This data reveals that the representative sample

is consistent with the total population of the system's colleges as evidenced by comparisons to the student population of the Technical College System of Georgia in attendance during the spring quarter of 2005. During the spring quarter of 2005, there were approximately 151,000 students enrolled in Georgia's technical colleges. The sample set consisted of students' from 16 technical colleges consisting of 13,782 took the Noel-Levitz Student Satisfaction Inventory in the spring quarter 2005. Other comparisons indicating the sample set was indicative of the entire population included gender, age, employment, enrollment, and ethnicity revealing approximate equal percentages in the sample set compared to the entire population. The sample sub-set was comprised of 4,718 students from the sample set of 13,782, who fit into the category of non-traditional student. Two focus groups with a total of 10 students participated in qualitative discussions about the findings in the two quantitative sample sets.

Discussion of Research Question 1

Research question 1 stated: To what extent is each of the twelve institutional factors important to students? Findings indicated that study respondents reported Registration Effectiveness, Academic Advising and Counseling, and Instructional Effectiveness as the most important aspects of their technical college experience. These scale areas represented several facets of the students technical college experience such as the registration process, the academic advising programs, advisors and counselors knowledge, competence, approachability, and personal concern for students exposed to these services. This parallels findings by Dodd, Gary, & Kling (2004), Callahan, Eiss, Imbeau, Landrum, Tomchin, & Tomlinson (1997), and McGovern & Hawks (1986). Other areas including students academic experiences, the curriculum, the campus commitment to academic excellence, the

institution's promotion of a sense of campus pride and belonging for its student population, the institution's attitude toward students and the extent to which they feel welcome and valued, and the quality of support programs and services all aligned with previous studies by Sheldon (2003), Stone & Wehlage (1996), Wehlage & White (1996), and Williams (1993).

The order in which study participants prioritized scale areas in order of importance was consistent in the literature (Bitler, Rankin, & Schrass, 2000, and Coll, 2002) which advanced that the population at the technical college level, which can be described overwhelmingly by its non-traditional characteristics, placed great importance on features of their educational environment related to convenience and quality service. Researchers (Papo, 1999, Bui 2002, Pratt & Skaggs 1989) and Heisserer & Parette, 2002) argued that higher education may not be as important in the lives of many technical college students; it competes for time and attention with other activities such as work and family. Students expect some of the same conveniences and services from their educational institutions as they do from other service industries such as adequate parking, variable hours of operation, high quality, low cost, and informed employees (Angstadt, 2002). The respondents placed less importance on facets of the educational environment which involved attitudes toward students such as the Response to Diverse Populations, Student-Centeredness, and Campus Climate which is consistent with the research of Brown, Santiago, and Lopez (2003).

The importance of providing accessible and convenient registration/enrollment processes and procedures has also been argued in the literature by researchers (Carnegie Mellon, 1999; Bers & Galowich, 2002), who contend that accommodating student schedules (especially non-traditional) necessitates that the student services department availability be extended to include weekends and evenings for registration, counseling, admissions,

financial aid, and career advising. Respondents concurred with these arguments as there were high perceptions of importance found in areas of students' needs for and expectations of convenience and service in these areas. Other researchers (Reeves, 2001) expounded upon the importance of the registration process by suggesting that students should be able to conduct several transactions with ease, that is, in one stop. Admissions processing, financial aid processing, advisement and testing scheduling, payment, and registration were identified as elements of high importance during initial enrollment/registration process on the technical college campus by students in the Sample Set who reported that handling this business efficiently was of utmost importance and these findings were supported by Barnard (1997) and Creemers, Reynolds, Schaffer, Stringfield, and Teddlie (2002).

Study findings indicated that less importance was attributed to the institutional factors of Service Excellence, Student-Centeredness, and Responsiveness to Diverse Populations. These results were divergent to some extent from the findings of existing research of Brunot, Huguet, and Monteil (1996), and Weiss (2002), which indicated that campus climate and a student-centered environment is of paramount importance to students exhibiting non-traditional characteristics which constitutes a majority of the technical college population. Conversely, other current research findings (Renn, 2000) from the student perspective suggested that the campus climate aspect of technical college students' experience is relatively unimportant. This is dramatically different than the study findings as students non-traditional students who delay enrolling in college indicated that they feel it is very important that teachers and staff showing concern for them as individuals. Many community and technical college students exhibiting non-traditional characteristics spend little time on the college campus exposed to support services outside of the classroom; the majority of non-

traditional student time spent on the college campus is spent in the classroom (Alford, 1998). As such, time spent exposed to instruction constituted the majority of the students' time on campus, thus making reasonable the idea that instruction would be assigned great importance by virtue of exposure as supported by Avendano (2003).

Concerning the last factor, Response to Diverse Populations, study respondents reported that diversity issues were much less important than data supported in the literature of Borkowski (1988), Burris-Kitchen, Der-Karabetian, & Morrow 2000, and Phillips (2005). These authors focused their research predominantly on gender and race but also found that age of the students and employment factors affected how students felt about the campus that attended. The authors found that students who are older and employed find it more difficult to fit into the college environment. The researcher found that these non-traditional student descriptors were of little importance with overall importance and satisfaction of institutional factors. A possible explanation is that the former researchers conducted studies on traditional college campuses where this study was performed using technical college campuses which are predominately made up of non-traditional students.

Discussion of Research Question 2

To what extent are students satisfied with each of the twelve institutional factors? In terms of satisfaction, study findings indicated that the colleges were closer to meeting the expectations of students in the areas of Instructional Effectiveness, Student Centeredness, and Concern for the Individual as the most satisfying aspects of their technical college experience. The individual items that comprise these factors are: student's interaction with faculty; the service students receive from staff and administrators; the physical resources on

campus; the policies that are in place; and students' overall feeling of being welcome on campus.

Within the factor of Instruction, faculty interaction has been documented by Finley, Miller, and Vancko (2000), as the most important aspect of student retention. Bui (2002), along with Heisserer and Parette (2002), state that institutions who keep students at the forefront of decision making consistently have positive retention. Sample respondents felt satisfied that institutions were including students' best interests when making long-term strategies concerning courses and programs to offer.

Students felt satisfied that institutions were meeting their needs in the area of Student Centeredness as well. Grube (2002) stated the importance of the institution's attitude toward students and the extent to which they feel welcome and valued in invaluable when relating retention and students' completion of their educational goals. Weiss (2002), states that groups who deal personally with students (e.g., faculty, advisors, counselors, and staff) must understand the value of these relationships. Sample set students were satisfied with the extent that faculty and others were meeting their individual needs and showing concern for them while making long-term decisions.

Academic Services, Safety and Security, and Campus Support Services, were reported as least satisfying. Individual items making up these factors are: I generally know what's happening on campus; the amount of student parking space on campus is adequate; and this campus provides effective support services for displaced homemakers. Concerning Academic Services, Stringfield and Teddlie (2002) state that community colleges usually lack areas that promote student gatherings such as libraries with sufficient study areas. Dufresne (2005), states that campus' responsiveness to students' personal safety is paramount

throughout the United States but respondents in this research had low satisfaction in the Safety and Security factors at their institutions. One reason may be that individual survey items include statements concerning security staff and the majority of technical colleges do not have security staffs possibly skewing the results.

The institutional factor of Campus Support Services ranked last in satisfaction and included individual items such as the student center is a comfortable place for students to spend their leisure time and computer and study labs being available on campus. This parallels the findings of researchers Deberard, Julka, and Spielmans, (2004) and Glenn, and Ryan, (2004) found that technical college students have negligible concern for school appearance, school spirit, sporting events, and quality of vending or cafeteria food. Students spend limited amounts of time on the actual college campus and therefore do not take advantage of many services offered on campus.

Discussion of Research Question 3

To what extent do satisfaction and importance differ with the twelve institutional factors? Gay (1997) states that using the Noel-Levitz Student Satisfaction Inventory survey, factors that are related to satisfaction can be interpreted best in light of performance gap data and performance gap data for this study provided critical information on how the educational institution is meeting student expectations in various areas and how programs and policies of the future can be developed, changed, and maintained to fulfill student expectations. Study participants reported the greatest performance gap between expectation (importance) and satisfaction in the areas of Safety and Security, Concern for the Individual, and Admissions and Financial Aid scales.

Students tended to feel a great importance with the factor of Safety and Security but were not satisfied with items in the scale which measures the campus responsiveness to students' personal safety and security. Campus safety and security has been addressed in the literature considered by some researchers as Dufresne, (2005) as greater student concern in the wake of September 11. Since then, many researchers (Caruso, Goins, Lee, and Southerland, 2003, and Shearing and Wood, 1998) have attempted to explain the importance of institutions taking a proactive position concerning safety and security on the college campus. Providing students (consumers) with information about campus safety so that they can consider what precautions are necessary in protecting themselves and their property on the college campus is critical. Another reason for lower satisfaction ratings may be that individual survey items include statements concerning security staff and the majority of technical colleges do not have security staffs possibly skewing the results. The majority of Georgia's technical colleges are in rural areas and crime, safety, and security are typically more pronounced issues for urban institutions (Manzo, 2001).

Respondents were less satisfied with the factor of Concern for the Individual as well as items that made up the factor. This factor assesses the institution's commitment to treating each student as an individual as two items within this factor addressed the career placement department of the institution which ranked low in satisfaction. Clark, Sawyer, and Severy, (2004) stated that because career counseling not only facilitates the selection of an academic major and potential career but also helps to clarify students' values and lifestyle considerations, students rely heavily on suggestions made by counselors. Respondent results agreed with the research for importance but students were not satisfied that staff, other than

faculty, showed much attention or concern when they were in need of career counseling and job placement.

Students found great importance but little satisfaction in the areas of Admissions and Financial Aid. Rose and Sorensen (1992) looked at high tuition, financial aid, and subsidization of educational payments and questioned if needy students really benefited if they had to go into debt in hopes of finding a career. The financial aid award for any given student is determined by both the cost of attending a given institution and the student's ability to pay. One way to make a college education widely accessible is to charge low tuition yet many college administrators may argue that a policy of charging high tuition while generously awarding financial aid can even further reduce the net price paid by needy students. Cuccaro-Alamin and Choy (1998) added that although tuition and fee increases are sometimes offset by increases in the availability of financial aid, community college students are less likely than are their four-year counterparts to avail themselves of financial aid or loans to facilitate completion of their education. Students ranked the entire financial aid process as very high in importance agreeing with researchers but as low in satisfaction as they had difficulty understanding the procedures required and the uncaring attitudes of the staff. Students largest complaints stemmed from the lack of information they received about when to apply or reapply for financial aid.

Students felt that factors of Campus Climate, Student-Centeredness, and Academic Services were important and that the institution was closer to meeting their expectations in these areas. These results conferred existing research which has indicated that campus climate and a student-centered environment is of utmost importance to students exhibiting nontraditional characteristics which constitutes a majority of the community college

population (Cohen & Brawer, 2003; Pascarella & Terenzini, 1991; Tinto, 1993). One of the consistent items in each of these factors is the inclusion of faculty and this was supported by the findings of Hess and Kerksen-Griep (2003) who stated that having a campus climate with teachers' interacting with students may encourage students to see them as concerned mentors and expert problem-solvers rather than as friends or adversarial taskmasters thus promoting a learning environment. Colton, Colton and Shultz (2001) found that combining the faculty advising relationship with a faculty mentoring relationship creates a unique entity that are components of successful retention programs for students. Students reported high satisfaction with the individual relationships that had been established with the faculty and this parallels the needs set forth by prior research.

Chickering and Gamson (1987) indicate that regular faculty-student contact is the most important factor in student involvement and motivation and can provide students with the needed support to get through the tough times and keep working toward academic success. Students were satisfied that instructors took time to listen empathetically to their concerns and were non-judgmental when discussing career choices promoting the previous findings.

The foremost items within the factor of Academic Services that students felt were important but were not satisfied were computer labs are adequate and accessible and the equipment in lab facilities is kept up to date. Birkeland (1994) states that an advantage to classroom labs is that they allow a teacher to introduce, reinforce or enrich any curriculum objective. Students felt that this area was very important was not satisfied with how the college was meeting their needs.

Students felt that the factor of Registration Effectiveness was important but were not satisfied with the institution meeting their needs. Reeves (2001) acknowledged the importance of the registration process by suggesting that students should be able to conduct several enrollment transactions with ease, that is, in one stop. College admissions and records department, along with the financial aid office, is each part of the student services department within the college. Respondents concurred with this finding as they ranked the individual items of: policies and procedures regarding registration and course selection are clear and well-publicized and the personnel involved in registration are helpful, high in importance but low on in satisfaction.

Levin states that the services provided should be student-centered, highly interactive, timely and responsive while Roueche and Roueche (1993) found that retention and student performance significantly improve if the beginning of a student's college career is positive; starting with the registration process. Students ranked the item of: new student orientation services help students adjust to college, as high in importance and low in satisfaction suggesting that though important as evidenced by research, colleges were not satisfying students beginning their academic career.

The Campus Support Services factor assesses the quality of services utilized by students in order to integrate their academic experience with their lives outside of campus. Individual items that ranked high in importance and low in satisfaction include: the career services office provides students with the help they need to get a job; and there are adequate services to help them decide upon a career. Quereshi (1998) states that the overall satisfaction with a department is related to the effectiveness of a career development program, helpfulness in personal development, and the support of faculty members while

Phillips-Miller and Morrison (1999) state that the potential of counseling services would be more fully realized if programs became more fully integrated into the academic mission of the institution. Paralleling a lack of institutional commitment, students feel that the item of: there are adequate services to help me decide upon a career are important but the satisfaction level is low for the factor showing the colleges are not meeting the needs as specified by prior research.

Responsiveness to Diverse Populations is an assessment of institutional commitment to certain populations of students: part-time; evening; non-traditional; ethnic minority; commuter; and disabled students on the SSI. Georgia's technical colleges are considered open-access as requiring fewer admissions standards as traditional colleges and universities. As open-access colleges, by virtue of their mission to serve any student with a high school diploma or G.E.D., community colleges admit a larger percentage of part-time students, non-traditional students, students in need of remediation, and other high-risk students than colleges with more selective admission policies. In general, these students may be less prepared for college and at greater risk for failure (Cohen & Brawer, 1996). The individual items in this factor were: most students feel a sense of belonging here and students are made to feel welcome on this campus ranked low in satisfaction. Students ranked the items within this factor a high in importance as well as being satisfied with the institutions' ability to meet their needs. This finding is contrary to the Cohen and Brawer research as respondents who are characterized as belonging to a diverse population are satisfied with how institutions are meeting their individual needs

Summarizing research question 3, students found most of the 12 institutional factors important. There were differing degrees of satisfaction throughout the factors which

ultimately affected the gaps between importance and satisfaction. Respondents ranked the factor of Safety and Security as important but low in satisfaction. Individual items within the factor may have skewed the results as they entailed staff and most institutions do not have such staff. Overall, respondents gravitated towards feeling the faculty were very important at the institutions and the students were satisfied with the relationships overall. Conversely, respondents felt all areas within the student services area were important but had varying degrees of satisfaction within the same factors.

Discussion of Research Question 4

To what extent to importance and satisfaction vary by different characteristics of non-traditional students? The respondents for this research question were members of at least one of the categories on non-traditional students: employed full-time; attends part time; independent caregiver; or delayed enrollment. The order in which study participants prioritized scale areas in order of importance was supported in the literature which advanced that the population at the community college level, which can be described overwhelmingly by its nontraditional characteristics (Choy, 2002), did indeed place great importance on features of their educational environment related to convenience and quality service.

The study findings revealed that although statistically significant mean differences were identified on several scales with respect to the extent to which students exhibited non-traditional characteristics; only very small percentages of the variance in each dependent variable could be explained by these independent variables. The absence of practically significant findings suggested that these non-traditional characteristics had no meaningful relationship to how students assigned importance to or their satisfaction with various aspects of their educational experience on the technical college campus. The non-traditional

characteristics of: employed full-time (35 hours or more per week) while enrolled in coursework, and the descriptor of financially independent for purposes of determining eligibility for financial aid (does not live with parents), produced no statistically significant findings relative to the factors or the individual item scale areas of interest for this study.

Employed Full-Time

Findings of this study revealed that enrolled students who were employed 0-15 hours per week were more satisfied than those students employed more than 30 hours per week. These findings complement the previous findings of authors (Levitz, Noel, and Saluri, 1985, and Hurley, 2002) who employing the same SSI instrument with a technical college population, concluded that employment status was related to satisfaction scores.

Deberard, Julka, and Spielmans, (2004) suggested that part-time employed students reported the highest level of satisfaction followed by non-employed and full-time employed students. Within this research, no statistically significant differences in mean satisfaction scores among the three groups were determined, however. The findings also revealed that employment status had a statistically significant influence on satisfaction scores on the Admissions and Financial Aid scale as students were least satisfied with admissions counselors responding to prospective students' unique needs and requests as well as the business office is open during hours which are convenient for most students. This fact suggests that respondents who work full-time may require student services departments to be available extended hours. Overall, being employed full-time did not affect students' feelings of importance and satisfaction with the other 11 factors overall.

Attends Part-Time

The sub-set of attends part-time (less than 12 credit hours) produced one area that was significantly different concerning the sub-set and the original sample set that is worth noting. For the sub-set group, the individual factor of Responsiveness to Diverse Populations ranked much higher than it did for the Sample Set. Diversity issues, on the SSI, were not categorized as ethnicity, gender, or family status but instead the individual items that made up this factor include: how satisfied are you that this campus demonstrates a commitment to meeting the needs of: part-time students, evening students, older-returning learners, under-represented populations, commuters, and students with disabilities. This finding parallels the research by Shoffner and Williamson (2000) who state that because part-time students have less opportunity to interface with college personnel that want the personnel to be available while they are on campus and do not want to have to wait.

Ranking lowest on the satisfaction scale for part-time enrollees was the factor of Campus Support Services. The individual items that ranked the lowest in satisfaction include: student center is a comfortable place for students to spend their leisure time and childcare facilities are available on campus. By the nature of the fact that the student is enrolled part-time, these items of study areas and child care may inherently be low in importance to this group as they do not spend much free time on campus and child care on the campus does not affect them. This fact compliments the work of Deneui (2003) who found that students who participate in more campus activities tend to be more committed to their academic goals and by virtue of being on campus, more activities became available to them.

Obligations outside of the educational setting limit many nontraditional students ability to fully engage in their educational endeavors; this reality may result in part-time

enrollment and academic services often fail to take into consideration the time constraints within which non-traditional students often operate (Carney-Crompton & Tan, 2002; Wright & O'Neill, 2002).

Student as Independent Caregiver

Student as independent caregiver reflects students who are considered financially independent for purposes of determining eligibility for financial aid. Financially independence reflects the criteria that the student is ineligible to be claimed on anyone's tax returns except their own; in particular-- parents. Within this subgroup, there were 3,189 females who made up 72% of the respondents and 1,241 males who made up 28% of the respondents and 3080 (61%) of the respondents being over the age of 25. In the category of employment, 62% worked full-time while 34% were unemployed.

These facts alone may be argued as to skewing any responses to the questionnaire.

Students as independent caregivers felt that Instructional Effectiveness was the most important factor while they were most satisfied with how the institutions met the needs of Responsiveness to Diverse Populations. One of the largest gaps between importance and satisfaction for the Sub-Set independent caregiver was within the factor of Admissions and Financial Aid. The financial aid allocation process and the criteria for receiving aid are based on financial need, academic merit, or other characteristics. Clark, Sawyer and Severy (2004) report that individual states support public institutions by providing subsidies, grants, or tuition waivers to students or give money directly to students through combinations of grants, loans, work study, or loan-forgiveness programs. Financial aid is a tool to increase access for low-income and minority students, as researchers (Heller and Rasmussen, 2004) have shown that low-income and underrepresented students are more sensitive to changes in price and

that minority students are more likely to qualify for need-based aid rather than for merit-based awards. These findings support the importance the sub-set group assigned to the factor and the low satisfaction rates indicated the colleges were not meeting the students' needs.

Two individual items that independent caregiver students ranked low in satisfaction comprise the Admissions and Financial Aid factor and include: admissions counselors respond to prospective students' unique needs and requests and adequate financial aid is available for most students. This concurred with a finding by Feyerick (2001) that described a warning to Congress from a key advisory committee to the Education Department that low-income students could be shut out of colleges if financial aid programs are not changed.

Delays Enrollment

Dodd, Gary, and Kling, (2004) found that college students 25 years and older known as adult learners are the fastest growing educational demographic in higher education. The sub-set of delays enrollment (did not enter postsecondary education in the same calendar year that he or she finished high school) produced one area that was significantly different concerning the Sub-Set and the original Sample Set that is worth noting. For the Sub-Set group, the individual factor of Concern for the Individual ranked much higher in overall gap between importance and satisfaction than it did for the Sample Set. Individual items that make up the factor of Concern for the Individual include: most students feel a sense of belonging here; the college shows concern for students as individuals; my academic counselor is concerned about my success as an individual; and counseling staff care about students as individuals. The importance of this factor is relative to adult learner expectations, as researchers noted that adults were increasingly attracted to convenience and efficiency on

the college campus (Wright & O'Neill, 2002); adult students preferred classes that fit their nontraditional schedules and learning styles.

Relative to adult learner expectations, researchers Bitler, Rankin, and Schrass (2000) noted that adults were increasingly attracted to convenience and efficiency on the college campus; adult students preferred classes that fit their non-traditional schedules and learning styles. Bui (2002) found that quick and easy registration procedures along with access to technology were key elements of convenience and efficiency for many older students. As a result of these particular wants and needs, the adult learners may have wished for more individual contact with instructors, staff, and administration and lacking this, ranked the factor of Concern for the Individual as lowest in the satisfaction ratings.

Also ranking low in satisfaction were the individual items of: I seldom get the "run-around" when seeking information on this campus and classes are scheduled at times that are convenient for me. With respect to the learning environment, many adult students preferred a self-directed approach to their educational interests, as stated by Davis, Hawks & Strawn (2004), varied educational goals, and instructional needs. These sentiments may likely reflect the older students' needs for more individualized attention and the need to be able to obtain answers to concerns promptly combined with the quality of service and personal concern for students in various departments of the campus, and the institution's attitude toward students and the extent to which they felt welcomed and valued.

Overall, the absence of practically significant findings suggested the nontraditional characteristics of consideration in this study had no meaningful relationship to how students measured their satisfaction with various aspects of their educational experience on the technical college campus.

Discussion of Research Question 5

How do students with different backgrounds represent importance and satisfaction about the institutional factors? This question was answered by focus group discussions of the themes that arose from the quantitative data. These themes were based upon the areas of safety and security, the colleges' faculty, and the colleges' student services areas. The first major theme evolved from the data sets and was introduced by the researcher. This theme entailed the institutional factor of Safety and Security as this factor produced the largest gap between what students felt was important and their satisfaction with the factor. The second major theme evolved from the focus group discussions and entailed the area of institution's student services department and how vitally important the areas of Admissions and Financial Aid are in the retention efforts of non-traditional students. The last major theme that arose from the focus group discussions was in the area of the importance of the faculty. The focus groups agreed that regular faculty-student contact is the most important factor in student involvement and motivation and can provide students with the needed support to get through the tough times and keep working toward academic success.

Some focus group students would not have made the decision to attend college had circumstances not mandated that they pursue a degree or college level coursework. Some of them were not committed to the process of education; they only wanted the end result so that they could get on with their lives. Although some were motivated by circumstances, others were being pushed (sometimes quite literally) by family or friends. Weiss (1999), states that the nontraditional students seem to be more motivated by circumstances, whereas the traditional students are being pressured to attend college by parents or peers.

Safety and Security Issues

The first major theme was portrayed in performance gap measures involving the safety and security concern and evolved from the analysis of the data from the Sample Set and the Sample Sub-Set. The Safety and Security scale measured the campus responsiveness to student's personal safety and security. The two groups of respondents attributed high importance to this scale; however, they rated this aspect least in satisfaction yielding the greatest performance gap measure of all scales. Since this area produced the largest gap and a basis to this research was the differences in students' perceptions of importance of and satisfaction with institutional factors, the researcher introduced this theme as the area that arose from the quantitative analysis. The focus group echoed this sentiment as they were not satisfied with all of the items within the safety and security but overall, they did not regard the items with high importance either.

Caruso, Shelley, Goins, Lee, and Southerland (2003) describe the purpose of the Campus Security Act was to encourage institutions of higher education to place more emphasis on campus safety. The disclosure of accurate campus crime statistics is required so that potential students and parents can make informed decisions about college attendance and safety issues. The focus groups were unaware of the Act and the researcher pointed out the published information on the college's website. Students all agreed that they did not know what the statistical information meant but were pleased that nothing bad had occurred on the campus. The focus group members stated that they did not feel threatened in any way and basically never thought about safety. These sentiments echoed Dufresne's (2005) conclusion that students have become accustomed to a safe environment.

The researcher stated that the two databases had evidence that the items with the least satisfaction for Safety and Security were security staff are helpful and security staff respond quickly in emergencies. The focus group students commented that they did not know that the college had a security staff. The researcher informed the group that the college did not. Students commented that the fact the colleges did not have security staff may be the reason that the survey takers were not satisfied, but the focus group respondents also stated that they did not feel that this particular campus needed security staff. The researcher stated that the next two items in the Safety and Security factor were parking lots are well-lighted and secure along with the item of the amount of student parking on campus is adequate. Students jokingly stated that the college needed more parking places, especially close to the buildings where their classes were held but truthfully stated that there was plenty of parking. All students made comments that having well-lighted parking lots were of utmost importance and as far as they knew, the lighting was sufficient. Manzo (2001) explained the importance of institutions taking a proactive position concerning safety and security on the college campus. Providing students with information about campus safety so that they can consider what precautions are necessary in protecting themselves and their property on the college campus is critical. Overall, students claimed that they were satisfied with the safety issues of the college and did not recommend any major changes.

Student Services

The student services sector of the college where the focus group students attended had three distinct departments. These departments included: admissions, financial aid, and career assistance. Each of the focus group members felt that this area within the college was important, but overall were not satisfied with the department. This is an important finding

that parallels the work of researchers Rose and Sorensen (1992) and Manuanane-Drechsel and Hagedorn, (2000) who stated how vitally important the areas of admissions and financial aid are in the retention efforts of non-traditional students.

Dodd, Gary, and Kling, (2004) report that college students 25 years and older are known as adult learners and are the fastest growing educational demographic in higher education. Given the importance of increasing student retention, colleges and universities alike have focused considerable attention on developing appropriate strategies to increase the retention rates of these students. The transition to college involves a noticeable increase in stress level in most college students and especially ones who have postponed enrollment. In general, many first-time college students experience intimidation, a form of culture shock, and have a lower self-esteem in the academic environment (McGregor et al, 1991). One potential buffer of stress is social support and it appears social support may be quite crucial in successful transition to the college environment (Terenzini et al., 1994). Focus group members accentuated this point as they discussed the feelings of being “left on their own” after they were admitted into the institution.

Tinto's (1993) model of attrition recognizes that college pre-entry attributes and each student's goals and commitments can be precursors to the student's transition to college. Thus, students who are not prepared for the transition may begin a process leading to attrition even before the first day of class. Nevertheless, students applying to a rolling admission, open-access college, can be admitted and registered the day classes begin, without any forethought or preparation (Spady, 1970). As far as the admissions process, all of the respondents were fairly satisfied with the admissions office and the admissions process as a whole.

Georgia's technical colleges have an open enrollment policy (GDTAE, 2006). This policy allows students to attend with minimal qualifications and without certain criteria that traditional colleges and universities require such as SAT scores or other standardized test scores. As open-access colleges, by virtue of their mission to serve any student with a high school diploma or G.E.D., community colleges admit a larger percentage of part-time students, nontraditional students, students in need of remediation, and other high-risk students than colleges with more selective admission policies. In general, these students may be less prepared for college and at greater risk for failure (Cohen & Brawer, 1996). As a by product of this policy, the respondents were all satisfied with the admissions department.

Focus group respondents felt the financial aid department was very important but were not satisfied with the individual staff or how they had been treated. Each member of the focus group received financial aid; most in the form of Georgia's HOPE grant. Other aid came in the form of PELL grants while none of the members received any federally subsidized loans. Clark, Sawyer and Severy, (2004) state that financial aid counselors are often primary points of contact between students and the institution during the decision-making process for coming to and/or returning to the campus. Respondents feel that the financial aid counselors must be aware of the powerful influence they have on the overall experience of the students and they are supported in serving students by appropriate policies and training.

Beyond financial aid, students are limited in college assistance in dealing with life situations such as finances, home and family, transportation, on-campus day care, financial aid, and parking and transportation. Because of this, Beatty-Guenter, (1994) states that that a community college can offer supplemental instruction to enable low-income students to

independently interact with each other in their studies and coursework outside the classroom and without supervision by the faculty. Respondents in the focus groups mentioned a dire need for non-academic assistance in areas of finance and time management strategies.

Students felt that the career assistance department was very important but they were not satisfied with the experiences they had in dealings within the department. The research by Lunneborg (1981) concurs with these thoughts as he stated that there is a gap between students' expressed need for career assistance and the actual assistance provided by the student services department. The focus group findings suggest that students are often unclear about the choice of programs a college offers as a major and felt that more information on career options was necessary to direct students into appropriate careers. The focus group students were fairly clear on their career choice but were not familiar with local jobs or how to find out about openings and application processes. Group members discussed the need for job acquisition skills, resume writing, interview techniques and job-advancement skills.

Faculty

The last major theme that arose from the focus group discussions was in the area of the importance of the faculty. Napoli and Wortman (1998) indicate that academic and social integration have both direct and indirect effects on persistence in college overall and that students who are integrated have stronger goal and institutional commitments, and these in turn influence persistence. The focus groups agreed with this statement and added that regular faculty-student contact is the most important factor in student involvement and motivation and can provide students with the needed support to get through the tough times and keep working toward academic success.

Nelson (1998) found that successful students develop relationships with their instructors and students who report higher levels of contact with peers and faculty also demonstrate higher levels of learning gain over the course of their stay in college. Researchers as Lau, (2004) have found that institutions must work towards providing students with a meaningful learning environment, so that these students will become connected to the institution by developing a sense of belonging within the student body. These environments go beyond traditional classroom settings. Therefore, every effort must be made to retain students while they are on campus. Because of a lack of on-campus meeting areas like dorms or lunchrooms, students long for relationships that keep the connected to the campus and this is typically done through faculty relationships (Strauss & Volkwein, 2004). Focus group students said they did not want to do things like go to lunch with instructors but they did enjoy talking with instructors outside of the classroom environment about non-academic issues.

Focus group participants stressed the importance of instructors performing extra services, beyond just teaching the material, such as helping students with note-taking improvement skills, study skills, allowing peer tutoring, counseling, and advising as all play a major role in student happiness. Focus group students feel that learning techniques that are new to them, besides simple memorization techniques they used in high school, are enjoyable and help them to learn and understand in the college setting.

One issue that students brought up, not that they were not satisfied with it, but wished for it to be addressed, was that classes are scheduled at times that are convenient. Stone and Wehlage, (1996) stated that the user-friendly and organized school was more likely to succeed in serving the nonacademic needs of students because support programs achieved

greater integration and focus than in the bureaucratically organized school. Group members did not like 8:00 am classes but were focusing on attending. Most of the students wanted to be done with their classes by lunch so they could either go to work or be home when their children got out of school.

Conclusions of Findings

This study has provided insights into the perceptions of Georgia's technical college students as well as a sub-set of college students exhibiting characteristics deemed non-traditional regarding what they considered important and satisfying relative to their experience on the technical college campus. The study adds to available research by providing a more contemporary view of some issues, particularly the perception of satisfaction of students, and offers a new view from students' points of view. Also included in the study is information on the type of student enrolled in two-year colleges, with regard to socioeconomic status and academic standing.

Additionally, this study has contributed to the research literature regarding technical college student satisfaction and the extent to which non-traditional characteristics are related to perceived importance and satisfaction with a variety of aspects of the educational environment. Identifying what students assigned importance to and what students reported satisfaction with provided institution policy and decision makers with critical information concerning how to allocate fiscal and human resources to make improvements in areas deemed worthwhile from the student perspective.

Based on the findings of the study, the researcher drew the following conclusions:

1. Administrators and other decision makers can improve the two-year technical college students' experiences by focusing on three major areas that students feel are most

important to their attending the college, including institutional effectiveness, registration effectiveness, and academic advising and counseling.

2. Two-year technical college students are not satisfied with academic services, safety and security, and campus support services which may impact their decision to remain enrolled in school.
3. Institutional planning would be beneficial to attend to student needs of safety issues, student services issues, and issues of admissions and financial aid.
4. Two-year technical colleges in Georgia are meeting the needs of students regarding factors of student centeredness, instructional effectiveness, and responsiveness to diverse populations.
5. Two-year technical colleges should develop specific policies addressed to serve students with delayed enrollment, especially in areas within the division of student services, academic counseling, and career counseling.
6. Colleges may need to focus upon the needs of part-time students, those who are evening students, and those who are older and returning students as these students make up the majority of students who attend the college.
7. Administrators' and decision maker's attention needs to be focused on strengthening these relationships, providing more time and resources where students and faculty can interact, and promote the relationships through other venues beyond the classroom.

Implications

1. This research studied factors that were alterable. Administrators and decision makers may be able to address by policy and procedures, retention rates of students by focusing on institutional factors such as instructional effectiveness, registration

effectiveness, and academic advising and counseling; the factors that are important to students as well as those that students are not satisfied such as academic services, safety and security, and campus support services.

2. The information gathered within this research should assist administrators in developing policies and goals that assist technical colleges in meeting established benchmarks of student completion rates. This may be accomplished by targeting factors that students feel are important and continuously measuring the students' levels of satisfaction with these items within the institution.
3. A priority of this study was to provide information that may promote guidelines and procedures that may be generalized to all of Georgia's technical colleges and can provide useful information in combating low satisfaction rates. Since the information was gathered from a majority of the colleges within the state system, the information may be disseminated throughout the agency as being applicable to all institutions.
4. Retention policies and procedures can be bolstered by the information of this study by utilizing the information herein to assist in producing strategies that are applicable to the needs and desires of students regarding their satisfaction and thereby promoting retention. Retention policies that focus upon items that students are satisfied with should be promoted and items that are not meeting the satisfaction levels of students need to be corrected.
5. Administrators may use this information to form procedures for student recruitment. Based upon the findings of this research, administrators and decision makers will be able to ascertain that there is a great need for faculty involvement in the processes of recruitment, advisement, retention, and career placement.

6. Administrators may use the information included to assist with personnel decisions within the student services department. Students' low levels of satisfaction with areas of admissions and financial aid procedures may be addressed by using the information within to pinpoint areas that may need attention within these areas.
7. Administrators may use the information within to formulate strategies that focus upon student retention and not necessarily student acquisition. Time, effort, energy, and money may be transferred to factors that assist in retaining current students while streamlining procedures that are used to attract new students.

Recommendations

Georgia's technical colleges possess many areas within the college that contribute how important students feel these areas are but more importantly, how satisfied students are with these factors. Therefore, the following recommendations were offered:

1. Georgia's technical colleges need to have frequent, comprehensive, consistent measures of students' perceptions which will aid institutions in facilitating the kind of educational environment that can be considered satisfying for all students, without regard to characteristics.
2. Technical colleges need to examine how they are assisting students with locating information regarding financial aid; how they are providing access to potential resources of financial assistance; when and how they are communicating financial awards, and the potential impact these procedures have on students' decision-making timelines.

3. Technical colleges need to examine how they are assisting students with locating information regarding career placement and other job-related areas such as resume' writing, interview skills, and career advancement planning.
4. Institutions should examine their advising structures and determine if they are functioning to best serve students. A priority should be placed on opportunities to have faculty members serve as advisors for students and policies should be put in place to build one-on-one interactions between the advisor and student on a regular basis throughout the school year.
5. Technical college faculty need to foster opportunities for regular interaction with their students in order to promote student success. These opportunities for increased communication also improve the faculty's understanding of students' unique circumstances and can help to improve the faculty-student interaction. This helps students meet expectations and promotes faculty satisfaction with the performance of students in the classroom.
6. Technical colleges need to understand that students expect to be treated as an individual and to feel that the institution is concerned about the individual student's best interests. This can be addressed through positive interactions between campus personnel and students, as well as through policies that are focused on serving the student. When students are paying their tuition dollars, they want to know that they matter to the institution.
7. Technical colleges need remain cognizant that the majority of students attending technical colleges in Georgia are considered non-traditional in terms of time passed

before a student enrolls in college after high school, the students' familial status, the students' work status, and the students' class load.

Concluding Thoughts

Based on the findings and insights of the implications and recommendations identified in this study, the researcher avails the following concluding thoughts for participants and others:

1. Further research in the area of technical college student satisfaction is recommended, not only for the sake of simply surveying the students, but institutions must disseminate the data received and act upon the results. As stated in Chapter 2, federal, state, and accrediting agencies are requiring all institutions to provide more data for accountability purposes but institutions need to act upon the deficiencies that are found within their institution; not just report it.
2. Researchers contend that data-based decisions must be formed from inquiry of evidence. These researchers observe that data require analysis to convey meaning, but for data collection to possess meaning, the data—and the collection methods—must be subjective, open to interpretation, and promote conversation. Simply providing a survey and producing data is without value until a cause for any discontent is addressed thus qualitative, focus group discussions will allow future researchers insight into the reasoning that students answered the surveys in the manner that they did as well as expand into other areas that are not fully addressed in the survey.
3. The quantitative data provided the researcher with a basis to formulate general ideas about institutional factors that students feel are important as well as the students'

level of satisfaction with these same factors. Researchers need to push the quantitative studies to include more non-traditional students and students who attend in the evening.

4. Concerning the Noel-Levitz company, it is obvious that many researchers are using the data that is published, either free or for a fee, in their studies. Currently the company does not allow for the purchase of the raw data from their sample sets that they provide that researchers could use to obtain a deeper understanding of specific demographic groups as administrators and decision makers attempt to focus on the needs of the particular target markets. The anonymity of the students and the institution can remain intact and the raw data can be disaggregated to assist institutional decision making. Institutions or agencies that request the use of the Noel-Levitz instruments should require the company to allow researchers the availability of the raw data.
5. Administrators should continue to seek ways to enhance enrollment while retaining current students. As a practical choice of post-secondary education, two-year college administrators must continually address enrollment concerns as the colleges receive a portion of state funds through formulas that are based on enrollments. In addition to enrollment, colleges must focus upon student attitudes, satisfaction, and persistence.

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APPENDICES

APPENDIX A
IRB APPROVAL CORRESPONDENCE

Georgia Southern University Office of Research Services & Sponsored Programs		
Institutional Review Board (IRB)		
Phone: 912-681-5465		Administrative Annex
		P.O. Box 8005
Fax: 912-681-0719	Ovrsight@GeorgiaSouthern.edu	Statesboro, GA 30460

To: Richard Stephens

CC: Dr. Barbara Mallory

From: Office of Research Services and Sponsored Programs
Administrative Support Office for Research Oversight Committees
(IACUC/IBC/IRB)

Date: December 12, 2006

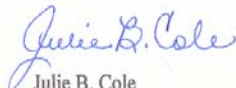
Subject: Status of Application for Approval to Utilize Human Subjects in Research

After a review of your proposed research project numbered: **H07103**, and titled "**An Analysis of Institutional Factors of Georgia's Technical Colleges as Perceived by Students**", it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research.

This IRB approval is in effect for one year from the date of this letter. If at the end of that time, there have been no changes to the research protocol, you may request an extension of the approval period for an additional year. In the interim, please provide the IRB with any information concerning any significant adverse event, **whether or not it is believed to be related to the study**, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator **prior** to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination* form to notify the IRB Coordinator, so your file may be closed.

Sincerely,



Julie B. Cole
Director of Research Services and Sponsored Programs

APPENDIX B

NOEL-LEVITZ STUDENT SATISFACTION INVENTORY

Noel-Levitz®

STUDENT SATISFACTION INVENTORY™

Community, Junior and Technical College Version

Laurie A. Schreiner, Ph.D., and Stephanie L. Juillerat, Ph.D.
 Copyright 1994, Noel/Levitz Centers, Inc. All rights reserved.

Dear Student,

Your institution is interested in systematically listening to its students. Therefore, your thoughtful and honest responses to this inventory are very important.

You are part of a sample of students carefully selected to share feedback about your college experiences thus far. Your responses will give your campus leadership insights about the aspects of college that are important to you as well as how satisfied you are with them.

To preserve confidentiality, your name is not requested.

— Thank you for your participation.



Instructions:

- Use a No. 2 pencil only. Please do not use ink or ballpoint pen.
- Erase changes completely and cleanly.
- Completely darken the oval that corresponds to your response.

Each item below describes an expectation about your experiences on this campus. On the *left*, tell us how important it is for your institution to meet this expectation. On the *right* tell us how satisfied you are that your institution has met this expectation.

Importance to me My level of satisfaction
1 - not important at all 2 - not very important 3 - somewhat unimportant 4 - neutral 5 - somewhat important 6 - important 7 - very important		not available/not used very satisfied - 7 satisfied - 6 somewhat satisfied - 5 neutral - 4 somewhat dissatisfied - 3 not very satisfied - 2 not satisfied at all - 1
does not apply		
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	1. Most students feel a sense of belonging here.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	2. Faculty care about me as an individual.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	3. The quality of instruction in the vocational/technical programs is excellent.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	4. Security staff are helpful.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	5. The personnel involved in registration are helpful.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	6. My academic advisor is approachable.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	7. Adequate financial aid is available for most students.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	8. Classes are scheduled at times that are convenient for me.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	9. Internships or practical experiences are provided in my degree/certificate program.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	10. Child care facilities are available on campus.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	11. Security staff respond quickly in emergencies.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	12. My academic advisor helps me set goals to work toward.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	13. Financial aid awards are announced to students in time to be helpful in college planning.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	14. Library resources and services are adequate.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	15. I am able to register for classes I need with few conflicts.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	16. The college shows concern for students as individuals.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	17. Personnel in the Veterans' Services program are helpful.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	18. The quality of instruction I receive in most of my classes is excellent.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	19. This campus provides effective support services for displaced homemakers.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7
<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7	20. Financial aid counselors are helpful.	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 <input type="radio"/> 7

PLEASE DO NOT MARK IN THIS AREA

1608358

<p>Importance to me . . .</p> <p>1 - not important at all 2 - not very important 3 - somewhat unimportant 4 - neutral 5 - somewhat important 6 - important 7 - very important</p> <p>does not apply</p>	<p>. . . My level of satisfaction</p> <p>not available/not used</p> <p>very satisfied - 7 satisfied - 6 somewhat satisfied - 5 neutral - 4 somewhat dissatisfied - 3 not very satisfied - 2 not satisfied at all - 1</p>	
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>21. There are a sufficient number of study areas on campus.</p> <p>22. People on this campus respect and are supportive of each other.</p> <p>23. Faculty are understanding of students' unique life circumstances.</p> <p>24. Parking lots are well-lighted and secure.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>25. My academic advisor is concerned about my success as an individual.</p> <p>26. Library staff are helpful and approachable.</p> <p>27. The campus staff are caring and helpful.</p> <p>28. It is an enjoyable experience to be a student on this campus.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>29. Faculty are fair and unbiased in their treatment of individual students.</p> <p>30. The career services office provides students with the help they need to get a job.</p> <p>31. The campus is safe and secure for all students.</p> <p>32. My academic advisor is knowledgeable about my program requirements.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>33. Admissions counselors accurately portray the campus in their recruiting practices.</p> <p>34. Computer labs are adequate and accessible.</p> <p>35. Policies and procedures regarding registration and course selection are clear and well-publicized.</p> <p>36. Students are made to feel welcome on this campus.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>37. Faculty take into consideration student differences as they teach a course.</p> <p>38. The student center is a comfortable place for students to spend their leisure time.</p> <p>39. The amount of student parking space on campus is adequate.</p> <p>40. My academic advisor is knowledgeable about the transfer requirements of other schools.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>41. Admissions staff are knowledgeable.</p> <p>42. The equipment in the lab facilities is kept up to date.</p> <p>43. Class change (drop/add) policies are reasonable.</p> <p>44. I generally know what's happening on campus.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>45. This institution has a good reputation within the community.</p> <p>46. Faculty provide timely feedback about student progress in a course.</p> <p>47. There are adequate services to help me decide upon a career.</p> <p>48. Counseling staff care about students as individuals.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>49. Admissions counselors respond to prospective students' unique needs and requests.</p> <p>50. Tutoring services are readily available.</p> <p>51. There are convenient ways of paying my school bill.</p> <p>52. This school does whatever it can to help me reach my educational goals.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>53. The assessment and course placement procedures are reasonable.</p> <p>54. Faculty are interested in my academic problems.</p> <p>55. Academic support services adequately meet the needs of students.</p> <p>56. The business office is open during hours which are convenient for most students.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>57. Administrators are approachable to students.</p> <p>58. Nearly all of the faculty are knowledgeable in their fields.</p> <p>59. New student orientation services help students adjust to college.</p> <p>60. Billing policies are reasonable.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>61. Faculty are usually available after class and during office hours.</p> <p>62. Bookstore staff are helpful.</p> <p>63. I seldom get the "run-around" when seeking information on this campus.</p> <p>64. Nearly all classes deal with practical experiences and applications.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>65. Students are notified early in the term if they are doing poorly in a class.</p> <p>66. Program requirements are clear and reasonable.</p> <p>67. Channels for expressing student complaints are readily available.</p> <p>68. On the whole, the campus is well-maintained.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>
<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>	<p>69. There is a good variety of courses provided on this campus.</p> <p>70. I am able to experience intellectual growth here.</p>	<p>1 2 3 4 5 6 7</p> <p>1 2 3 4 5 6 7</p>

Your institution may choose to provide you with additional questions on a separate sheet. The section below numbered 71 - 80 is provided as a response area for those additional questions. Continue on to item 81 when you have completed this section.

Importance to me My level of satisfaction	
1 - not important at all		not available/not used	
2 - not very important		very satisfied - 7	
3 - somewhat unimportant		satisfied - 6	
4 - neutral		somewhat satisfied - 5	
5 - somewhat important		neutral - 4	
6 - important		somewhat dissatisfied - 3	
7 - very important		not very satisfied - 2	
does not apply		not satisfied at all - 1	

71.	(If items 71-80 not available, skip to item 81.)	71.
72.		72.
73.		73.
74.		74.
75.		75.
76.		76.
77.		77.
78.		78.
79.		79.
80.		80.

How satisfied are you that this campus demonstrates a commitment to meeting the needs of:

81.	Part-time students?	81.
82.	Evening students?	82.
83.	Older, returning learners?	83.
84.	Under-represented populations?	84.
85.	Commuters?	85.
86.	Students with disabilities?	86.

How important were each of the following factors in your decision to enroll here?

87.	Cost
88.	Financial aid
89.	Academic reputation
90.	Size of institution
91.	Opportunity to play sports
92.	Recommendations from family/friends
93.	Geographic setting
94.	Campus appearance
95.	Personalized attention prior to enrollment

Choose the one response that best applies to you and darken the corresponding oval for each of the questions below.

- | | | |
|--|---|--|
| <p>96. So far, how has your college experience met your expectations?</p> <ul style="list-style-type: none"> ① Much worse than I expected ② Quite a bit worse than I expected ③ Worse than I expected ④ About what I expected ⑤ Better than I expected ⑥ Quite a bit better than I expected ⑦ Much better than I expected | <p>97. Rate your overall satisfaction with your experience here thus far.</p> <ul style="list-style-type: none"> ① Not satisfied at all ② Not very satisfied ③ Somewhat dissatisfied ④ Neutral ⑤ Somewhat satisfied ⑥ Satisfied ⑦ Very satisfied | <p>98. All in all, if you had it to do over again, would you enroll here?</p> <ul style="list-style-type: none"> ① Definitely not ② Probably not ③ Maybe not ④ I don't know ⑤ Maybe yes ⑥ Probably yes ⑦ Definitely yes |
|--|---|--|

CONTINUE TO THE NEXT PAGE

Choose the **one** response that best describes you and darken the corresponding oval for each of the items below.

- 99. **Gender:**
 - ① Female
 - ② Male
- 100. **Age:**
 - ① 18 and under
 - ② 19 to 24
 - ③ 25 to 34
 - ④ 35 to 44
 - ⑤ 45 and over
- 101. **Ethnicity/Race:**
 - ① African-American
 - ② American Indian or Alaskan Native
 - ③ Asian or Pacific Islander
 - ④ Caucasian/White
 - ⑤ Hispanic
 - ⑥ Other
 - ⑦ Prefer not to respond
- 102. **Current Enrollment Status:**
 - ① Day
 - ② Evening
 - ③ Weekend
- 103. **Current Class Load:**
 - ① Full-time
 - ② Part-time
- 104. **Class Level:**
(Years in attendance at this college)
 - ① 1 or less
 - ② 2
 - ③ 3
 - ④ 4 or more
- 105. **Current GPA:**
 - ① No credits earned
 - ② 1.99 or below
 - ③ 2.0 - 2.49
 - ④ 2.5 - 2.99
 - ⑤ 3.0 - 3.49
 - ⑥ 3.5 or above

- 106. **Educational Goal:**
 - ① Associate degree
 - ② Vocational/technical program
 - ③ Transfer to another institution
 - ④ Certification (initial or renewal)
 - ⑤ Self-improvement/pleasure
 - ⑥ Job-related training
 - ⑦ Other
- 107. **Employment:**
 - ① Full-time off campus
 - ② Part-time off campus
 - ③ Full-time on campus
 - ④ Part-time on campus
 - ⑤ Not employed
- 108. **Current Residence:**
 - ① Residence hall
 - ② Own house
 - ③ Rent room or apartment off campus
 - ④ Parent's home
 - ⑤ Other
- 109. **Residence Classification:**
 - ① In-state
 - ② Out-of-state
 - ③ International (not U.S. citizen)
- 110. **Disabilities:**
Physical disability or a diagnosed learning disability?
 - ① Yes
 - ② No
- 111. **When I entered this institution, it was my:**
 - ① 1st choice
 - ② 2nd choice
 - ③ 3rd choice or lower

Your Social Security Number is requested for research purposes and **will not** appear on any report.
Your response is voluntary.

Social Security Number:

Write your Social Security number in the nine spaces of the box provided.
Completely darken the corresponding oval.

0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9

112. **Major:**

Fill in major code from list provided by your institution.

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

113. **Item requested by your institution:**

- ①
- ②
- ③
- ④
- ⑤
- ⑥

Thank you for taking the time to complete this inventory.
Please do not fold.

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PLEASE DO NOT MARK IN THIS AREA	
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APPENDIX C

STUDENT SATISFACTION ITEMS AND CORRESPONDING SCALES

Table C1.

Academic Advising and Counseling Effectiveness Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Academic Advising and Counseling Effectiveness	Mostly an assessment of the knowledge, competence, and concern of academic advisors, with a single question directed towards counselors and another directed towards commitment to student success.	<p>6. My academic advisor is approachable.</p> <p>12. My academic advisor helps me set goals to work toward.</p> <p>25. My academic advisor is concerned about my success as an individual.</p> <p>32. My academic advisor is knowledgeable about my program requirements.</p> <p>40. My academic advisor is knowledgeable about the transfer of other schools' credits.</p> <p>48. Counseling staff care about me as an individual.</p> <p>52. This school does whatever it can to help me achieve my educational goals.</p>

Table C2.

Academic Advising and Counseling Effectiveness Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Academic Services Item Summary	Assesses services students utilize to achieve their academic goals, including library, computer labs, tutoring, and study areas.	<p>14. Library resources and services are adequate.</p> <p>21. There are a sufficient number of study areas on campus.</p> <p>26. Library staff is helpful and approachable.</p> <p>34. Computer labs are adequate and accessible.</p> <p>42. The equipment in lab facilities is kept up to date.</p> <p>50. Tutoring services are readily available.</p> <p>55. Academic support services adequately meet the needs of students.</p>

Table C3

Admissions and Financial Aid Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Admissions and Financial Aid	Assessment of the knowledge and effectiveness of admissions personnel, as well as the adequacy of financial aid, the notification process, and effectiveness of financial aid counselors.	<ul style="list-style-type: none"> 7. Adequate financial aid is available for most students. 13. Financial aid awards are announced to students in time to be helpful in college planning. 20. Financial aid counselors are helpful. 33. Admissions counselors accurately portray the campus in their recruiting practices. 41. Admissions staff is knowledgeable. 49. Admissions counselors respond to prospective student's unique needs and requests.

Table C4.

Campus Climate Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Campus Climate	An assessment of students' feelings of connectedness with the institution as well as faculty, staff, and institutional commitment; quality of social environment; and sense of community.	<ul style="list-style-type: none"> 1. Most students feel a sense of belonging here. 2. Faculty care about me as an individual. 16. The college shows concern for students as individuals. 22. People on this campus respect and are supportive of each other. 27. The campus staff is helpful and caring. 28. It is an enjoyable experience to be a student on this campus. 31. The campus is safe and secure for all students. 36. Students are made to feel welcome on this campus. 44. I generally know what is happening on campus. 45. This institution has a good reputation within the community. 52. This school does whatever it can to help me reach my educational goals. 57. Administrators are approachable to students. 59. New student orientation services help students adjust to college. 63. I seldom get the run around when seeking information on this campus. 67. Channels for expressing student complaints are readily available.

Table C5.

Campus Support Services Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Campus Support Services	Assesses the quality of services utilized by students in order to integrate their academic experience with their lives outside of campus, including career counseling, orientation for new students, child care, the student center, and services for displaced homemakers and Veterans.	<p>10. Childcare facilities are available on campus.</p> <p>17. Personnel in the Veteran's Services program are helpful.</p> <p>19. The campus provides effective campus support services for displaced homemakers.</p> <p>30. The career services office provides students with the help they need to get a job.</p> <p>38. The student center is a comfortable place for students to spend their leisure time.</p> <p>47. There are adequate services to help me decide on a career.</p> <p>59. New student orientation services help students adjust to college.</p>

Table C6.

Concern for the Individual Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Concern for the Individual	Assesses institutional commitment to treating each student as an individual, including the impact of those who frequently interact with students: faculty, advisors, and counselors.	<p>2. Most students feel a sense of belonging here.</p> <p>16. The college shows concern for students as individuals.</p> <p>25. My academic counselor is concerned about my success as an individual.</p> <p>29. Faculty is fair and unbiased in their treatment of individual students.</p> <p>48. Counseling staff care about students as individuals.</p>

Table C7.

Instructional Effectiveness Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Instructional Effectiveness	An assessment of faculty effectiveness both in and out of the classroom.	<ul style="list-style-type: none"> 2. Most students feel a sense of belonging here. 18. The quality of instruction I receive in most of my classes is excellent. 23. Faculty understands of student s unique life circumstances. 29. Faculty is fair and unbiased in their treatment of individual students. 37. Faculty takes into consideration student differences as they teach their course. 46. Faculty provides timely feedback about student progress in a course. 54. Faculty is interested in my academic problems. 58. Nearly the entire faculty is knowledgeable in their field. 61. Faculty is usually available after class and during office hours. 64. Nearly all classes deal with practical experiences and applications. 65. Students are notified early in the term if they are doing poorly in a class. 66. Program requirements are clear and reasonable. 69. There is a good variety of courses provided on this campus. 70. I am able to experience intellectual growth here.

Table C8.

Registration Effectiveness Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Registration Effectiveness	Assesses policy, procedure, and effectiveness of personnel associated with registration and billing.	5. The personnel involved in registration are helpful. 8. Classes are scheduled at times that are convenient for me. 15. I am able to register for classes I need with few conflicts. 35. Policies and procedures regarding registration and course selection are clear and well-publicized. 43. Class drop/add policies are reasonable. 51. There are convenient ways of paying my school bill. 56. The business office is open during hours which are convenient for most students. 60. Billing policies are reasonable. 62. Bookstore staff is helpful.

Table C9.

Responsiveness to Diverse Populations Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Responsiveness to Diverse Populations	An assessment of institutional commitment to certain populations of students: part-time, evening, nontraditional, ethnic minority, commuter, and disabled students.	How satisfied are you that this campus demonstrates a commitment to meeting the needs of: 81. Part-time students? 82. Evening students? 83. Older, returning learners? 84. Under-represented populations? 85. Commuters? 86. Students with disabilities?

Table C10.

Safety and Security Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Safety and Security	Assesses students feeling of personal safety, parking facilities, and responsiveness of security workers to student security and emergencies.	4. Security staff is helpful. 11. Security staff responds quickly in emergencies. 24. Parking lots are well-lighted and secure. 31. The campus is safe and secure for all students. 39. The amount of student parking on campus is adequate.

Table C11.

Service Excellence Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Service Excellence	An assessment of front line staff and personnel other than faculty toward students and of the students' sense that they can approach college staff and how they can approach administrators without getting the run around.	5. The personnel involved in registration are helpful. 23. People on this campus respect and are supportive of each other. 26. Library staff is helpful and approachable. 27. The campus staff is caring and helpful. 44. I generally know what is happening on campus. 57. Administrators are approachable to students. 62. Bookstore staff is helpful. 63. I seldom get the run around when seeking information on this campus. 67. Channels for expressing student complaints are readily available

Table C12.

Student-Centeredness Item Summary

Scale	Scale description	Corresponding items on Student Satisfaction Inventory
Student-Centeredness	An assessment of student's feelings of connectedness with the institution and commitment of the institution to them, as well as quality of interaction between students, staff, and administration.	2. Most students feel a sense of belongingness here. 16. The college shows concern for students as individuals. 27. The campus staff is caring and helpful. 36. Students are made to feel welcome on this campus. 57. Administrators are approachable to Students.