COMMUNITY COLLEGE STUDENTS' PERCEPTIONS OF AND SATISFACTION
WITH FACTORS AFFECTING RETENTION IN A MAJOR URBAN COMMUNITY COLLEGE IN THE SOUTHWESTERN UNITED STATES

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements
For the Degree of

DOCTOR OF PHILOSOPHY

By

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Denton, Texas
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The purposes of this study were (a) to analyze whether any significant differences exist in students' satisfaction among the 11 composite scales/satisfaction measures of the SSI (retention programs); (b) to determine whether significant differences exist in satisfaction among students of the institution based on their demographic characteristics of gender, age, ethnicity, class load, and employment; and (c) to record findings, draw conclusions, and make recommendations from the study.

The research was conducted using a questionnaire, The Student Satisfaction Inventory (SSI), developed by Juillreat and Schreiner in 1994. The instrument measures, among other matters, students' perceptions and satisfaction. The population of the study comprised all students at the institution during the 1996-1997 school year. A total of 312 students was sampled, with 182 (58%) returns received.

Statistical treatments used to analyze the collected data included frequencies, percentages, means, standard deviation, multiple analysis of variances (MANOVA), one-way analysis of variance (ANOVA), and Tukey's Post Hoc t-test for multiple comparison.

Based on the findings and conclusion of this study, it is recommended that the institutional policy makers and retention officers formulate a safety/security program that
better meet student expectations and satisfactions in such areas as adequate, accessible, and secure parking lots. Adequate lighting, parking, handicap facilities, safe activity centers, planned and monitored interracial activities, adequate security officers on patrol, and clear campus maps and directions should be improved. Institutional effectiveness, campus climate, and other non-academic programs should be reviewed and improved upon. A multiple campus study needs to be conducted to compare results with this study and to determine what other areas students of community colleges deem necessary to enhance their college persistence.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>v</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td></td>
</tr>
<tr>
<td>Purposes of the Study</td>
<td></td>
</tr>
<tr>
<td>Research Questions</td>
<td></td>
</tr>
<tr>
<td>Significance of the Study</td>
<td></td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td></td>
</tr>
<tr>
<td>Delimitation of the Study</td>
<td></td>
</tr>
<tr>
<td>Methodology and Procedure</td>
<td></td>
</tr>
<tr>
<td>Definition of Terms</td>
<td></td>
</tr>
<tr>
<td>Assumptions of the Study</td>
<td></td>
</tr>
<tr>
<td>II. REVIEW OF RELATED LITERATURE</td>
<td>11</td>
</tr>
<tr>
<td>Definition and Theoretical Concepts</td>
<td></td>
</tr>
<tr>
<td>Research Studies on Student Retention</td>
<td></td>
</tr>
<tr>
<td>Various Retention Programs</td>
<td></td>
</tr>
<tr>
<td>Demographic Variables Associated With Student Retention</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Class Load</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>Historical Information on the American Community College</td>
<td></td>
</tr>
<tr>
<td>Rationale for This Investigation</td>
<td></td>
</tr>
<tr>
<td>III. METHODS AND PROCEDURES</td>
<td>37</td>
</tr>
<tr>
<td>Description of the Research Instrument</td>
<td></td>
</tr>
<tr>
<td>Reliability and Validity of the Instrument</td>
<td></td>
</tr>
<tr>
<td>Research Population</td>
<td></td>
</tr>
<tr>
<td>Selection of Sample Procedure</td>
<td></td>
</tr>
</tbody>
</table>
### LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of Questionnaires Distributed and Percentage of Returns From Each Class</td>
<td>48</td>
</tr>
<tr>
<td>2. Demographic Characteristics of Students</td>
<td>52</td>
</tr>
<tr>
<td>3. Summary Means and Standard Deviation for Students' Satisfaction in All 11 Satisfaction Measures of the Student Satisfaction Inventory (SSI)</td>
<td>54</td>
</tr>
<tr>
<td>4. One-way Analysis of Variance (ANOVA) of the 11 Satisfaction Measures</td>
<td>55</td>
</tr>
<tr>
<td>5. Test of Within-Subject Effects to See if Ho = Ha (Ho = All Are Equal), and (Ha = All Are not Equal)</td>
<td>56</td>
</tr>
<tr>
<td>6. Multivariate Omnibus F-test</td>
<td>57</td>
</tr>
<tr>
<td>7. One-way Analysis of Variance (ANOVA) Summary: Comparison of Student Satisfaction Based on Gender in All 11 Variables of the SSI</td>
<td>58</td>
</tr>
<tr>
<td>8. One-way Analysis of Variance (ANOVA) Summary: Comparison of Student Satisfaction Based on Age in All 11 Variables of the SSI</td>
<td>60</td>
</tr>
<tr>
<td>9. Pairwise Comparison (Tukey Test) of Sample Means Generated by the Students on Campus Climate, Campus Support Services, Institutional Effectiveness, and Safety/Security Variables Indicating Significance by Age Groups</td>
<td>61</td>
</tr>
<tr>
<td>10. One-way Analysis of Variance (ANOVA) Summary: Comparison Students' Satisfaction Based on Ethnicity in All 11 Variables of the SSI</td>
<td>63</td>
</tr>
<tr>
<td>11. Pairwise Comparison (Tukey Test) of Sample Means Generated by the Students on Admission/Financial Aid and Safety/Security Variables of the SSI Indicating Significance by Ethnicity</td>
<td>64</td>
</tr>
<tr>
<td>TABLE</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
</tr>
<tr>
<td>12. One-way Analysis of Variance (ANOVA) Summary: Comparison of Student Satisfaction Based on Class Load in All 11 Variables of the SSI</td>
<td>65</td>
</tr>
<tr>
<td>13. One-way Analysis of Variance (ANOVA) Summary: Comparison of Students' Satisfaction Based on Employment in All 11 Variables of the SSI</td>
<td>66</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Students' perceptions of and satisfaction with retention programs are important when considering factors influencing their college persistence. This study investigated how students perceive college retention programs and analyze their level of satisfaction with reference to the demographic characteristics of gender, age, ethnicity, class load, and employment. Retention has been among the major concerns of college administrators as well as students' attrition rates.

It is not enough for institutional researchers to acquire a general sense of existing literature on retention and attrition; they should also be able to address the central theoretical, methodological, and data-analytic concerns in studying retention and attrition (Pascarella, 1982). Colleges should have a data base that would permit them to measure the effects of retention programs, especially in the crucial freshman year. Institutions should acquire a baseline of student information that would enable them to know their students demographically in order to target attrition-prone groups. In his general findings, Astin (1987) stated that retention rates for students in all types of institutions had declined substantially since the early 1970s. He noted that the important freshman predictors of retention were the students' high school grades and admission test scores.
Henry and Smith (1986) stated that the 1980s produced federal and state mandates for public colleges and universities to be more accountable by demonstrating measurable increases in student skills, knowledge attainment, and retention between college entry and exit. They said that the watchword for the 1990s is accountability. Kreider and Walleri (1988) emphasized that external bodies increasingly set the agenda for defining institutional accountability criteria. This is true and becomes more evident when one considers students attending 2-year community and junior colleges. Unlike the study by Kuh, Schuh, Whitt, and Associates (1991), the setting here is not residential; it is, rather, an open-door, nonresidential comprehensive community college. Halpin (1990) and Attinasi (1986), using Tinto's retention model, studies student retention at such a nonresidential community college. A growing number of experts are concerned that America's labor force into the 21st century will have a difficult time meeting the demands of the economy. The community colleges with their open-door admission policy are poised to this situation.

This study, therefore, is designed to examine the students' perceptions and satisfaction with the retention programs at a 2-year institution. Studies revealed that respondent institutions with retention programs at the college level have statistically significant higher retention rates (70.77%) than those colleges without retention programs (56.19%). This study is an examination of the existing retention programs at this institution to study and correlate its importance with the students' level of satisfaction. Administrative policies toward admission and retention programs reflect, in most
instances, the administrators' perceptions and support of student retention programs, whereas instructional strategies and the extent of student advisement reflect faculty's perceptions and support of student retention. Persistence and student outcome signify student perception and the extent of acceptance of existing retention programs. The focus of this study was to determine from the student's responses their actual perceptions and comments regarding the student retention programs at their college.

Current efforts at identifying student retention problems and developing solutions will ensure the vitality of the institution and meet the educational and vocational needs of the community. This study developed a retention model based upon research relating to students' attitudes and perceptions. The results and findings of this study indicated that the retention of students in a college not only is a complex issue that seldom has a single cause, but also involves the interaction of different social and economic variables. Astin 1987, Beal and Noel (1980), and Tinto (1987) agreed that retention is even more complex when distinct variables such as ethnicity, sex, religion, and conditions for the disabled are considered. Studies have also indicated that developmental education students and/or students from low-income backgrounds have a lower college persistence rate. Pascarella and Ternzini (1991) considered the presence of a hostile racial climate as another factor that threatens student college retention, especially that of the developmental education students.

Gross (1991) reported that some faculty members often have negative attitudes toward remedial students and are poorly prepared to teach them. The perception of
administrative and faculty attitudes and the extent of support of existing retention programs by the student himself or herself have an impact on the student’s decision as to whether to persist in the same college, to transfer to another institution, or to drop out of college. Good faculty advisement programs and mentoring systems are considered to be effective retention tools. Olivas (1989) noted that, as early as the 1970s, the shortage of African-American and Hispanic instructors at 2-year junior and community colleges was a particular problem. It has been agreed by Paterson (1988) that work with students from low-income families or minority students may suffer if developmental programs and other retention programs are inadequately financed.

This study examined students’ perceptions of and satisfaction with retention programs at the community college and determined whether significant differences occurred with respect to their demographic variables of gender, age, ethnicity, and employment. The study used the Student Satisfaction Inventory (SSI) (Juillerat & Schreiner, 1994) to examine and determine students’ different perceptions about existing retention programs and to gather information from them on whether to improve on, create, or drop a program. It will also help to discover how best to start a new and effective program where such is not in existence. A comprehensive review of existing literature focusing on historical perspectives, conceptual models of retention and attrition, family success, goal commitment, retention programs, student enrollment, and the perceptions of students was used as references in this study. This study is pertinent because, in spite of the efforts to curb attrition by various colleges and universities and
other institutions of higher education through programs, experiments, and research, only about four out of ten students who enroll in colleges and universities graduate (Astin, 1988). Certain programs that influence student enrollment and retention, if not adequately provided for, may also cause student attrition. The problem of retention, particularly in developmental courses in colleges, concerns most college administrators and faculties (Beal & Noel, 1980). Student retention and satisfaction with the college experience have become urgent and complex issues for campus administrators in recent years (Astin, Korn, & Green, 1987). Nowhere has this renewed interest in student persistence been more prevalent than in community and junior college (El-Khawas, 1986a). El-Khawas (1986b) reported that 85% of the community colleges surveyed in 1985 had programs for monitoring student retention compared to 64% in 1984.

The 2-year community colleges serve as the last hope for many college dropouts. They are geared toward answering the needs of nontraditional college-age students, commuters, physically disabled students, tradesmen, and artisans, as well as transfer and college bound students. The 2-year college is faced with salvaging the educational promise made to every young American that one can succeed if one is willing to work hard enough to overcome obstacles to achieve the American Dream.

Statement of the Problem

This study focuses on students' perception of and satisfaction with retention programs in a 2-year community college in the Dallas/Fort Worth, Texas Metroplex area.
with respect to the demographic variables of gender, age, ethnicity, class load, and employment.

Purpose of the Study

The purposes of the study were (a) to analyze whether any significant differences exist in students' satisfaction among the 11 satisfaction measures of the SSI (retention programs); (b) determine whether significant differences exist in students' satisfaction with retention programs with respect to their demographic characteristics of gender, age, ethnicity, class load, and employment; and (c) record the findings, draw conclusions, and make recommendations from the study.

Research Questions

Given the problem and purposes of the study, the following research questions were investigated:

1. What differences are there in students' satisfaction among the 11 satisfaction measures of the SSI?

2. What differences exist in students' satisfaction with retention programs with respect to their demographic characteristics of gender, age, ethnicity, class load, and employment?

Significance of the Study

The rate at which students drop out of schools in the United States has become critically high. Astin (1987) stated that retention rates for students in all types of
institutions have declined substantially since the early 1970s. Retention of students in
community, junior, and 4-year colleges around the country has been an important concern
of college administrators and a serious issue affecting higher education. The effective
recruitment and retention of students in higher education calls for further studies and
research as a renewed effort toward encouraging student persistence in colleges. This
study is in response to a renewed effort to determine, define, and find solutions to this
student retention problem in our colleges, with particular reference to a community
college in the Dallas area.

Limitations of the Study

This study has two major limitations. First, the sample for the study was drawn
from one community college only, and any inferences, generalizations, or references
concerning student perceptions of and satisfaction with student retention programs may
not apply to any other extensions or to other 2- or 4-year colleges. Secondly, not
everything about student retention was included in this study. The study was restricted to
those areas of student retention programs that are mentioned in the survey questionnaire.

Delimitation of the Study

The study was delimited to all students enrolled only at a community college in the
Dallas area during the fall semester of 1996 and spring semester of 1997. A stratified
random sample of 312 students was selected from that campus. The retention programs
to be analyzed by the study were limited to those items of retention mentioned in the
survey instrument.

Methodology and Procedure

This study was a descriptive research based on the perceptions of and satisfaction
with retention programs by the students at a community college in the Dallas/Fort Worth
area. Various student retention factors were examined. A review of literature on student
retention was conducted to determine what research has been done in this area. Students'
opinions and perceptions were drawn with the help of a questionnaire. The researcher
used descriptive statistics to analyze the data.

Through a 113-item survey questionnaire, the perceptions and opinions of the
students were examined in order to understand their perception of and satisfaction with
retention programs.

Definition of Terms

Perception: The process by which individuals, through any of their five senses,
become aware of any given meaning to their environment. Perception here refers to the
awareness or understanding of an individual that reflects his/her personal attitudes,
feelings, or opinions that may be related to personal experiences, knowledge of, or
association with the services intended to be studied.

Dallas/Fort Worth Metropolitan Area: All the surrounding communities and
counties within the Dallas/Fort Worth Metroplex in Texas.
**Junior and Community Colleges:** Two-year community or privately funded postsecondary institutions that offer associate degrees. They are liberal and comprehensive in their curriculum, and, in most cases, they have a more specialized-trade or job-oriented curriculum for many of their nontraditional college-aged students.

**Retention:** Keeping students in school until they complete their academic goal.

**Retention Program:** Any activity or program set up to encourage students to remain in school until they complete or achieve their college objective.

**Retention Officers:** Full-time student affairs personnel from the dean of students to heads of different student service programs.

**Administrators:** College policy makers, including the president, vice-presidents, deans, and departmental chairpersons.

**Academic Transferee Program:** Any academic course that is intended to be transferred to the same or another institution for the purpose of completing a program or acquiring a degree.

**Southwest:** The geographical area of the United States that includes all the states in the southwestern boundaries.

**Student Affairs Program:** Any activity or program that concerns the welfare and security of the students.

**Student Satisfaction Inventory (SSI):** An instrument developed by Juillreat and Shreiner (1994) to measure student satisfaction.
Assumptions of the Study

The following assumptions are basic to this study.

1. Students' perceptions of and satisfaction with retention programs could be measured by use of a questionnaire.

2. A stratified random sample was used: therefore, all students at a community college in the Dallas area would have equal opportunity to participate in this survey and to form perceptions and opinions about the retention programs at the college.

3. The responses of those students to the survey instrument used for this study represent their perceptions of student retention programs at the institution.

4. This study will provide relevant and evaluative information and tools that can be used to improve and/or create retention programs that will be more successful at a community college in the Dallas area.
CHAPTER II

REVIEW OF RELATED LITERATURE

Various scholars have researched different aspects of student retention in higher education. Some of the researched areas include the need for student retention, retention programs, role of retention officers, institutional policies affecting student retention, funding of retention programs, and different retention strategies in different institutional settings. However, none of these studies has dealt specifically with the topic of community college students' perceptions of and satisfaction with retention programs in a major urban community college in the Southwestern United States.

Definition and Theoretical Concepts

One of the major problems of a review of related literature on students' satisfaction with retention programs is to define the specific concept of students' satisfaction as it applies to retention programs in particular and to the institution in general. Different researchers have studied different aspects of the field and have defined variables in terms of the concepts with which they can easily work. The concept has been operationally defined in many ways. Many researchers conceptualized satisfaction on a broad, general sense, while others looked at satisfaction within a specific and defined spectrum.
The significance of students' satisfaction with retention programs for a successful college experience is not a new idea in higher education. The Committee on the Student in Higher Education (CSHE), established by the Hazen Foundation (1968), worked for 18 months on recommendations to improve the college experiences, both for students and the society. Their conclusions emphasized the importance of the freshman year and urged colleges to make a major investment in the student's initial year, not only for the purpose of retention, but in order to foster learning and development.

Retention programs should be formulated bearing in mind students' perspectives and perceptions. Students' satisfaction with major institutional programs in the academic as well as in the extracurricular activities portrays their acceptance of the institution. Such acceptance in most cases assures their retention in college, with all things being equal. College administrative policies and the execution of strategies should be formulated in order to meet students' college expectations and to give them a successful college experience.

The National Institute of Education's (1984) report, Involvement in Learning: Realizing the Potential of American Higher Education, advocated as its first recommendation the "front loading" of resources for 1st- and 2nd-year students in order to increase student learning and encourage persistence. It is important that retention officers see that 1st- and 2nd-year students acquire enough interest and sense of belonging in the institution in order to complete their freshman and sophomore years. Research studies
have shown consistently that the highest amount of attrition occurs around the freshman year, either during or just after it.

Martha McGinty Stodt (1987) pointed out that the synergy among quality education, student development, and student retention as a goal for an educational institution provided the impetus for a group of colleges and universities to form a consortium. The consortium addressed the crucial issues of retention on the assumption that retention is primarily a byproduct of educational excellence which includes elements that foster the development of students cognitively.

It is the intention of this study to show how important and critical it is to develop strategies to improve educational excellence and student retention. Scrutiny of the research findings offers clear support for the premise that both the academic and the student affairs domains must be utilized to provide educational excellence and promote student persistence. Students are satisfied with retention programs, and thus the institution, when their expectations are met. Poor academic advising has emerged as the leading reason given by students for dropping out of college. This aspect of the academic program (academic advising) seems to be the most intractable in our schools. Some institutions have invested both rhetoric and funds in training programs and staff development, but the old advisement system generally remained entrenched. Several of the schools, however, had established special programs for high-risk students, and they had demonstrated the power of a well-executed academic advisement program. Academic
advisement, however, has not properly permeated institutional practice and may not fully
do so until it is incorporated into the academic reward system.

Research Studies on Student Retention

Concerns about retention and attrition in higher education have increased over the years. Statistics have remained fairly constant on the number of enrolled freshmen
dropping out of higher education. Brawer (1996) approximated that 50% of the freshmen
enrolled in colleges and universities drop out before completing their programs. Efforts to
identify and treat potential dropouts have grown considerably. Studies investigating the
retention and attrition of students in community colleges have gathered data on student
demographics in order to discover the typology of students who are likely to remain in
school and those who are at risk of dropping out. Many studies in this area attempted to
discover and pinpoint the characteristics of persisters and nonpersisters. Moore (1995)
and Windham (1994) found that full-time attendance at college is the most important
characteristic of persisters. Interestingly, the most prevalent characteristic among studies
of nonpersisters is part-time attendance (Feldman, 1993; Price, 1993). According to
studies, San Juan College in New Mexico found that in 1991 and 1992, fall-to-fall
persistence rates for part-time degree-seeking students were 42% and 35%, as compared
to 59% and 46% for full-timers (Moore, 1995). Feldman (1993), Lanni (1992), Price
(1993), and Windham (1994) also reported a higher dropout rate among part-time
students.
Age is another characteristic that helps identify college persisters and nonpersisters, although this characteristic showed conflicting reports in the research. Typically, studies reported persisters to be younger students and, conversely, nonpersisters to be older students (Price, 1993; Windham, 1994). However, an investigation of preenrollment variables as predictors of 1-year retention of 1,140 first-time students at one community college found that the risk of dropping out was associated with young students between 20 to 40 years of age (Feldman, 1993). Conversely, Mohammadi (1994), in a study at Patrick Henry Community College in Virginia, found attrition rates after one year to be higher for those students in the age ranges of 23 to 35 and 45 to 50. Other attributes found to influence students' decision to leave college before completing their program or degree included full-time employment, low grade point average, being a member of an ethnic minority other than Asian, family obligations, financial concerns, and female gender (Bonham & Luckie, 1993; Lewallen, 1993). Identifying the characteristics of persisters and nonpersisters is a difficult task. Therefore, retention of students should be approached in a more holistic way by implementing multiple intervention strategies.

Marshall (1992), in a project at Blue Ridge Community College known as SPARK (Student Participation and Retention Keys), sought to determine why Adult Basic Education (ABE) and General Education Development (GED) students dropped out of the college's basic skills program and how student retention could be improved. Information gathered from a survey indicated that students ranked the following as the chief reasons for not continuing in classes: money problems, starting a job, lack of
transportation, and work schedule changes leading to conflicting job/class times, relocation, and low grade point average. In another instance, a study was conducted at Westchester Community College (WCC, 1995) in New York, with 1,208 students who attended WCC for the first time in Fall 1993 but did not return the following spring semester to determine their reason for not returning.

Findings in the WCC (1995) study, based on an analysis of responses from 241 (20%) of the students and demographic characteristics from student files, included the following: (a) of the 1,208 students who did not return, 75.5% had attended part-time, whereas only 56.2% of the first-time students in Fall 1993 attended part-time; (b) nonreturning students were 46.6% female and 62.1% White, roughly equal to their percentages among first-time students in Fall 1993; (c) 34.9% of the respondents indicates that they had attended WCC for personal interests, 17% to prepare for a career change, 15.4% to transfer to a 4-year college, another 15.4% to improve job skills, and 8.7% to prepare for a first career; (d) 53.5% indicated that they had their objective by the time they left WCC; (e) 14.1% indicated that they had not intended to return for the spring semester when they enrolled, 12.9% that they did not return because they had to work, and 10.8% that they chose to enroll in another college; and (f) 36.5% indicated that they planned to return in the coming year or sometime, whereas 25.1% were undecided and 34.4% did not plan to return.

In response to findings in a 1994 accountability report, and specifically data related to student retention, colleges in the Illinois Community College System were asked to
report on local initiatives to track and improve retention. In describing their retention initiatives, 30 colleges specifically mentioned assessment and placement activities, with most colleges requiring mandatory placement activities. Thirty-two colleges described components of their advisement/counseling program, with several colleges indicating that they train a broader cross-section of staff for advising positions and use more computer technology. Eight colleges indicated that they use mentoring programs, while 14 colleges created or revised student retention process. Eight colleges noted enhancement to workshops and seminars aimed at student retention, and another 14 colleges had enhanced their student tracking systems. Fifteen colleges noted increased efforts to coordinate college-wide retention programs, while specific initiatives to enhance student services were described by eight colleges. Other programs included allowing students to change sequential courses during the first four weeks and early registration procedures. Each of the colleges has a directory describing retention initiatives on their campus.

To examine the effect of developmental and remedial course participation on student retention and academic performance, Sinclair Community College in Ohio undertook a study of outcomes after three years for the 1,798 first-time, degree, or certificate students who enrolled in Fall 1990. Students were grouped based on need for remedial coursework and participation in remedial courses, while performance measures included ratio of credit hours earned to those attempted, cumulative grade point average (GPA), and selected grades. Study findings included the following: (a) 40.4% of the cohort were still enrolled by Spring 1993; (b) students who took all recommended
developmental courses had a higher retention rate than those who took some recommended courses, who took no courses, and who did not need remediation; (c) students who took all recommended coursework had a higher ratio of credit hours attempted and were more likely to be in English and math courses than those who took some or none of their recommended coursework: (d) academic success measured by GPA could not be predicted by developmental course participation, because credit hours in developmental classes are not included in cumulative records; and (e) with respect to performance in college-level English and mathematics courses, students who took recommended developmental courses performed at a satisfactory level in their subsequent coursework, though not better than those with higher placement scores.

The rate at which students drop out of schools in the United States has become critical, and for this reason, colleges and universities are being challenged to find immediate solutions for this problem. Despite an increase in the number of nontraditional students entering colleges, there is a concern about the declining number of traditional college-age students entering colleges. Eaton (1992) has pointed out some barriers to higher education. She stated that absence of money, racial and gender bias, lack of preparedness, and absence of motivation can all cause access barriers. The issue of retention is as important as that of entrance. Anderson, Carter, and Malizio (1989) agreed that education has been recognized as a means to advance in society. Studies have indicated that the amount of income often correlates to the level of education. The community college, as an open-admission, nonresidential institution, provides people with
access to postsecondary education regardless of their previous or present social background. As many as one fourth of full-time entering freshman students nationwide are not at the same institution one year later. This is more evident in minority student populations.

The trend toward freshman departure has remained constant since the mid 1970s. This study is significant because it examined the factors that influence students’ retention, especially the traditional student-age population. It uses the personal experiences of students, faculty, and administrators and their individual perceptions to evaluate the existing retention programs and to make suggestions and recommendations about more successful student retention programs in higher education. Budgetary problems have contributed to a decline in services due to rising costs and heavily taxed educational dollars. However, budgetary problems alone do not explain the lack of support for student retention programs. Shaffer (1984) and Dannels (1988) identified numerous forces influencing higher education and student affairs, such as arrival of a great diversity of students at a time when the profession (student affairs) is examining its basic assumptions, beliefs, and practices for traditional students and more stable times. Many students, the public, faculty, and administrators are questioning the values and even the desirability of some student retention programs.

The work of the retention officers, which of course is primarily concerned with recruiting and keeping students in school, is influenced by some common feelings that most colleges and universities have not been doing and cannot do much about values,
desirable lifestyles, life goals, student morals, leadership skill development, and decisions to leave or stay in school. According to Miller (1986), identifying and serving the needs of both residential and commuter students are challenging tasks for smaller institutions, particularly community and junior colleges, and retention is one of their major concerns. Community colleges are unique, and their uniqueness is often derived from their sources of support or affiliation, such as churches or communities. They have varied goals and missions, depending on the dictates of their support system. Others are unique because of their locations in urban, suburban, or rural settings. Unlike the 4-year colleges or other larger institutions, junior and community colleges are also unique due to their special curricular offerings, often focusing on the liberal arts and sciences or on technical education. They do not generally offer the same range of courses as the larger institutions. The primary area of uniqueness in community colleges is their ability to provide personalized services that attend to the individual needs of every student. In some cases, classes are smaller, and classroom student/faculty ratio is, in most cases, appropriate.

At community and junior colleges, struggles to maintain enrollment and attempts to recruit a broader range of student population, as well as retaining them, are on the increase. Since retention has become an important concern of retention officers at community and junior colleges, provision of high-quality effective retention programs has become a necessity, and funding must at the same time remain within the constraints imposed by limited financial and human resources (Murray & Apilado, 1989).
Considering the ever-increasing institutional focus on enhancing student retention and educational outcomes, the role of student affairs professionals takes on an even greater significance. Outcomes-assessment methodology and the resulting information generated by them will provide student retention officers with critical data to develop and direct their retention programs.

Studies also observed that the virtual neglect of the systematic comparison of institutions based on campus outcome measures is especially unfortunate, given the 1990s concerns about the quality of graduate and undergraduate education. These concerns are reflected in several national reports, such as the National Institute of Education’s (1984) *Involvement in Learning*. In providing job-ready and transfer programs, community colleges make it possible for students to overcome access barriers to higher education. As the world today is full of diversity and multidimensional job interests, the community college, through its continuing education programs and noncredit programs, provides individuals opportunities to learn new skills or to upgrade old ones. Offering courses at off-campus sites in the community, and junior colleges brings education directly to the people to help reduce the number of people without college experience, since studies indicate that more than 28% of the U.S. population does not have a high school diploma. Students attending community and junior colleges are ethnically, culturally, and economically diverse. This is due to the fact that many international students are attending community and junior colleges on student visas, including undocumented aliens. Further studies indicate that 22.5% of minority students were enrolled in public 2-year colleges,
whereas only 17.3% were enrolled in public 4-year colleges; in the private institutions, 26.6% were enrolled in private 2-year colleges, while 15.4% were enrolled in private 4-year colleges. The recent influx of immigrants into the country has caused the increase in the student enrollment into 2-year community and junior colleges. These immigrants view the community college as a good starting place in a new country to redevelop and update their skills, especially because the community college has job-related programs. They consider the 2-year program of the community college quick enough to acquire new skills and learn enough English to obtain employment in the United States. With their limited financial resources and sometimes lack of automobiles and other means of mobility, the immigrant students prefer the community colleges because of their proximity to and from where they live.

Callaci (1993) stated that schools of higher education are working with the government and private industry to retrain these new students for alternate occupations. This is the main objective of the community college. The services of the community college to students with differing academic, economic, and social backgrounds can have a positive impact and lasting effect on the future of the country. In 1975, Tinto published a model of attrition and retention that identified student academic and social integration into the formal and informal structures of the institution. This model affects the student’s decision as to whether to persist or drop out of school. It is a model that believes that the more students become integrated into the academic and social systems of the institution, the more likely it is that they will persist at the institution (Tinto, 1975, 1987). Many
retention experts such as Halpin (1990), Terenzini and Wright (1987), Pascarella (1986), and Pascarella, Smart, and Ethington (1986) have all adopted this student retention concept.

In the seven Dallas County Community Colleges, various programs are in effect to encourage students' college persistence. These programs which are mostly funded with student services funds, are considered effective in some cases, whereas some are looked upon as a waste of both funds and resources. The need for programs such as orientation programs cannot be overemphasized. The orientation program helps students to adapt to their new environment and makes the transition from their previous environment more tolerable. It is an effort to help students make adjustments in their personal and academic life. This program helps families understand what their children will experience in college, and it also helps the institutions learn about their new students and their needs (Boyer, 1987). In all seven Dallas County Community Colleges, it is a major policy issue that every campus is as committed and creative in helping students adjust to college life as they are in recruiting them in the first place. Because of this, student development programs are designed to provide students with personal and academic counseling and career and life planning. Student development programs are designed to help students develop skills necessary to deal with academic and personal developmental problems (Boyer, 1987, Terenzini & Wright, 1987).

Faculty interactions with students outside of the classroom have positive effects on students' behavior (Tinto, 1987). Contacts among students with their professors help to
increase their desire to complete college. There is also a need for early and continued intervention to help students clarify college choice and, once the choice has been made, to guide them through an often unfamiliar and confusing system. Schurenberg (1989) suggested that college admission directors would honestly and openly identify the kinds of students who would flourish on their campuses. He encouraged parents not to seek the most prestigious colleges, but rather to look for those colleges that would best serve the interests of their children in college. In his report on a study of the undergraduate experience in the United States, and in his documentary on students and college experience, Boyer (1987) agreed after his survey of prospective college students that there is no sound basis for making a decision when it comes to selecting a college. He believes that, without adequate information about a college, its curriculum, and the programs it offers, many students choose college almost blindly. Once they enroll, they sooner or later become dissatisfied with their decision, and at this point, many consequently transfer or drop out of college.

Seidman (1991) advocated integrated admissions and counseling programs based on long-term multiple semesters that may provide a more powerful treatment. Since the concept of academic and social integration has been accepted by the educational community as being effective in helping student persistence in college, the community colleges should apply this concept based on Seidman’s model. Seidman (1993) suggested a retention program that would move away from the traditional concept that students attend college just to receive degrees toward the idea that they attend college for academic
and personal reasons that would benefit the community in the long-run. From the
demographic information, Seidman’s model suggested collecting information regarding
family structure and background. Family structure, he said, would include such
information as whether students are from single-parent families headed by mothers or
fathers, as well as other pertinent information. Hewlett (1991) believes that students from
single-parent families achieve at different levels than those from traditional nuclear
families. Tors (1992) cited numerous studies over the years to prove that students from
father-absent households score lower on standardized tests than students whose fathers
are present in the home. Tors attributed this to lack of financial resources available to
women to adequately provide for their children. Tors (1992) said that female-headed
families make up a disproportionate and increasing share of persons in poverty.

Student needs and aspirations should be identified so that appropriate programs
are developed to foster their entry and retention in college. Data need to be obtained and
analyzed regarding students’ academic, social, economic, and family backgrounds. Their
personal goals and ability to achieve them need to be assessed. To develop a successful
retention program, it is important to ascertain the characteristics of successful students.
Identifying these characteristics can assist in developing programs to help students who
are academically under prepared and whose family background has put them at economic
and social disadvantage. Many retention strategies have been formulated to help students
stay in school. Most colleges have many programs that have been proven successful in
meeting students' academic and personal goals. As students enter college, the tendency for them to become disenchanted with the institution and its curriculum may arise.

The importance of creating an intervention program that is geared toward increasing the interest of students and encouraging them to stay in school cannot be overemphasized. To realize when an intervention program should be introduced is important, and every retention officer should assess students intermittently to know at what point such intervention should be initiated. In some students, intervention should be initiated as soon as they show interest in the institution, while in other students, intervention should be as soon as they start experiencing some difficulty in their academic or personal life. In higher education, academic and student service programs should be comprehensive and powerful enough to effect a change in the student's life.

Community colleges have continually, and in most cases, consistently assisted students at the same level throughout the duration of their college life. Various programs abound that community colleges can introduce or improve upon to increase the retention propensity of their colleges. Such programs will help to maximize the potential of students in meeting their goals and assist the institutions in removing impediments to student growth and development. College application forms should ask for pertinent student information, which should be entered into the student database to be used in the assessment and placement of students into appropriate programs. In South Carolina, Piedmont Technical College (PTC) has developed a highly collaborative style of leadership that emphasizes interdependence and shared responsibility among a wide variety of
organizations and groups in the community. PTC initiatives designed to promote quality management and strategic leadership include the formation of a participatory planning group composed of faculty, staff, and administrators to formulate, evaluate, and develop the college’s institutional plan; the creation of a computer system to provide data on student retention; and the provision of real-time access to data to all members of the college community. PTC has also been designated by the state Technical Education System as a resource center in the areas of automated manufacturing, international business, and quality. Other efforts related to quality processes and measures include courses on the principles, methods, and tools of quality management offered to faculty, staff, and area employers and employees. In an effort to promote educational and organizational development, PTC is involved in various collaborative efforts with Greenwood County (South Carolina and local businesses via the Piedmont Excellence Process), providing training sessions in quality management to businesses and public agencies, distance learning initiatives; and project PACE, designed to promote collaborative learning in the region.

**Various Retention Programs**

The following programs for students are necessary in any college campus.

**Orientation Program:** This is a program that tells the student what the college has to offer. It shows the student what the institution looks like, the kinds of programs it offers and the courses available, and makes them feel welcome at the institution.
**Career Planning and Placement**: As students enter college, most of them have no idea what they want. They sometimes have not chosen to go to college and are therefore not prepared for any type of career planning. Career planning and placement helps confused and unprepared students become acquainted with the type of career they would want to pursue and what courses they need in order to meet their goals. Information about job markets, salaries, and employment trends in a wide variety of fields should be available.

**Commuter Student Programs and Services**: Most community colleges serve commuter students. Transportation services and adequate parking lots, car-pool services, mobile food services, and emergency assistance should be provided.

**Counseling Services and Substance Abuse Program**: A testing service should be available for students to use in the determination of academic aptitude, achievement, vocational interest, and personality development. A counseling service can assist students in overcoming personality defects that interfere with their personal happiness and academic effectiveness.

**Disabled Student Services**: Buildings and other facilities on campus should be accessible to handicapped and disabled students; resident hall rooms, libraries, sidewalks, and other facilities should aid the mobility of handicapped students.

**International Student Services**: A program of advising and counseling should be provided for international students that can assist them with the legal procedures required
by the Immigration and Naturalization Service. The international student office acts as a liaison between the foreign student and the college.

**Intramural Sports**: Opportunities and facilities should be provided so that students can participate in a variety of intramural sports. There should be professionally trained staff in various sports and athletics to effectively manage the system and provide coaching for participants.

**Student Activities**: A variety of activities can help students develop special interests and meet other students who share similar interests. Students should have opportunities to participate in a variety of social activities. It is also important to provide students with leadership training opportunities. A student center should be provided to satisfy the social and recreational needs of the students.

**Student Wellness and Health**: The institution should provide preventive and remedial medicine, including inoculations. This program should provide information concerning medical problems such as diseases and drug use.

**Demographic Variables Associated With Student Retention**

It has been the interest of many researchers to study the effects of demographic variables such as gender, age, ethnicity, class load, and employment on students' perception and satisfaction. These demographic variables are discussed below.

**Gender**

Researchers have shown great interests in finding if there is any difference in college satisfaction between male and female students. There have been different views
and claims that males are more satisfied with college than females and vice versa. Some, however, have maintained that there is no difference between the two groups. When Hulin and Smith (1965) studied sex differences in job satisfaction, they found that there was a tendency for female workers to be less satisfied than their male counterparts. Hulin and Smith later concluded that it is not gender that is the crucial factor, rather that it is the entire constellation of variables including pay, job level, promotional opportunities within the organization, and social norms.

Wissman (1988) compared the satisfaction of male and female faculty members in different academic departments. The findings revealed that, compared to men, women in business and law were less satisfied with pay, promotion opportunities, supervision, and coworkers.

In a national study conducted by Carnegie Foundation (1988) concerning the extent and reasons for college faculty’s dissatisfaction, it was found that the percentage of men who are most satisfied (35%) with the teaching profession, working conditions, institutional climate and governance, and prospect for the future of the profession exceeds that of women (31%). This study suggests that recent efforts to end gender-based discrimination have yet to succeed. Some researchers have, however, found no significant differences in job satisfaction between male and female (Chewapun, 1989; Valthaisong, 1982, Wissman, 1988).

Staub (1987) and Wissman (1988) discovered that faculty in traditionally male gender-type disciplines received better treatment than faculty in female gender-type
disciplines. Consequently, those with better treatment were more satisfied. In general, the literature suggested that male-female distinctions seem to be related to specific situations and cannot be generalized from one occupation to another, or even from one organization to another.

In this study, gender is a factor that is being studied but with a different environment. This is not a job environment, it is, rather, a college environment where neither pay nor working conditions apply. Student’s satisfaction with college (retention) programs is considered, bearing in mind the individual student’s perceptions. Students’ perceptions include, among other things, their commitments and expectations. Male and female perceptions may or may not be the same, considering differences in their individual dispositions, commitments, and resources. This study would find out if any such differences in satisfaction with retention programs among students are due to gender difference.

Age

The effects of age on satisfaction have been widely explored by various researchers. Form and Geschwender (1962) reported that most studies on satisfaction indicate that older people are generally more satisfied than younger people. Different researchers have shown this phenomenon to be true. Harrington (1980) found a strong correlation between satisfaction and pay, as well as satisfaction and age. Salinas (1964) also found that age has a significant correlation with satisfaction. Tanash (1987) found
that faculty members 45 years of age or older tended to be more satisfied among other faculties.

In a college setting, especially in a community college, age is considered an important variable in determining what factors and variables influence students' satisfaction. This study investigated the impact of age on students' satisfaction with retention programs that encourage their persistence in college. It determined whether or not any significant differences exist in students' satisfaction based on age.

Ethnicity

Ethnicity is another important variable to be considered when determining the variables influencing student satisfaction. In an era of the global village, the racial composition of an institution, especially an academic institution, is an important factor to be considered when studying factors that could influence student college retention. The influence of ethnicity on students' satisfaction is, on the surface, less dramatic than might be expected. The Carnegie Foundation (1988) compared White faculty job satisfaction to minority job satisfaction. Its analysis of ethnicity job satisfaction showed that White faculty (38%), were more satisfied than the Black faculty members (35%). Hispanics and other ethnicities also showed less satisfaction in most job situations. In a college situation, this study looked into what significant differences ethnicity makes in students' satisfaction with retention programs.

Armour (1990) examined the ethnicity differences of job satisfaction among faculties. He compared responses from minority males (about 6%) and females (about
8% out of a total response of N=1135. His result proved that ethnicity and gender were not related significantly to overall satisfaction.

College students’ satisfaction is dependent upon various intrinsic variables of which ethnicity may not be the only factor, the result of this study will prove to what extent ethnicity influences students’ college satisfaction especially in a community junior college setting. Ethnicities considered and used in this study include African-American/Blacks, Caucasian/Whites, Hispanics/Chicanos, Asians/Pacific Islanders, and Other. “Other” represent any other ethnic groups that attend the institution whose ethnicity is not among those mentioned.

Class Load

Literature reveals that the number of courses a student is taking at one particular semester in a college can exert some influences on his/her satisfaction with college. Students personal commitment coupled with the demands of class work add more pressure to the student’s other engagements. J. P. Eddy et al. (1984) admitted that the amount of class load influences student’s class performance. In most cases, students beat all odds to persist in college if their grades are commendable. Class load therefore, directly or indirectly could affect students’ decision to be retained in college.

Full time students are those students who are taking twelve hours of study or more in one semester, whereas students with nine semester hours or less are considered to be part time students in the undergraduate level. It has been determined that the more semester hours a student takes, the more his academic commitments. Simpson (1991)
explored the source of career unhappiness among academic professionals, and ways academics try to cope with this problem. Some studies reveal that a positive relationship exist between length of working experience and satisfaction (Petict, 1971; Wangphanich, 1984). This study would see if such a relationship exist in length of completion of a class and satisfaction in a community college.

**Employment**

Students who attend 2-year community college are either employed full-time, part-time, or are unemployed. This study examined what impact employment has on students' satisfaction with retention. It is a truth that students would ordinarily not work if they could easily afford their college tuition and expenses. Students with fewer privileges work either full-time or part-time to off-set their college expenses. The review of literature showed that students with better opportunities persist more in college than those with limited resources. A student’s ability to persist in college, however, is dependent upon his or her ability to blend work and college schedules without conflicts. Employment may or may not have any relationship with college retention; it is the desire of this researcher to see if any positive relationship exists between them and in what circumstances.

**Historical Information On the American Community College**

The American community college dates from the early years of the 20th century. Several social forces contributed to its rise. The most prominent were the need for workers trained to operate the nation's expanding industries; the lengthened period of adolescence, which mandated custodial care of the young for a longer time; and the drive
for social equality, which was enhanced by opening more schools and encouraging everyone to attend. The easily accessible, publicly supported school became an article of American faith, first in the 19th century, when the responsibility of educating the individual shifted from the family to the school, then in the 20th century, when the schools were unwarrantedly expected to relieve society’s ills.

The principle that free public secondary education should extend to grades 13 and 14 dominated the rationale for organizing and extending the community colleges. It is expected that greater fluidity and a more continuous educational process will be accomplished without the sharp break at the end of the traditional twelfth year.

From their beginnings until the 1940s, community colleges were known most commonly as junior colleges. Definition of the junior college included the university branch campuses offering lower-division work, either on the parent campus or operated at a distance; state junior colleges supported by state funds and controlled by state boards; district junior colleges, usually organized by a secondary school district; and local colleges formed by a group acting without legal authority.

During the 1950s and 1960s, the term junior college was applied more often to the lower-division branches of private universities and 2-year colleges supported by churches or organized independently, while community college came gradually to be used for the comprehensive, publicly supported institutions. By the 1970s, the term community college was usually applied to both types.
Several names in addition to community and junior have been advanced, but none has taken hold. The institutions have been called “Two-year College” and “City College” and nick-named “People’s College,” “Democracy College,” and “Anti-University College,” the last by Jencks and Riesman (1968), who saw them as negating the principles of scholarship on which universities had been founded.

Rationale for This Investigation

Sharkey et al. (1987) indicated that consortium schools were given guidelines for implementation of their student development and retention plans that included the identification of areas, programs, and services for attrition-prone groups that needed improvement. The schools relied on their institutional research and reports, direct feedback from students, faculty, and staff, and their own professional evaluation to identify “at-risk” students and causes of attrition.

Astin (1987) reported new findings on student retention from the results of the follow-ups of about 12,000 cases from the 1981 and 1983 entering classes conducted in summer and fall of 1985. In his general findings, Astin stated that retention rates for students in all types of institutions have declined substantially since the early 1970s. The important freshman predictors of retention are the students’ high school grades and admission test scores.
CHAPTER III

METHODS AND PROCEDURES

This chapter explains the methodology and research approaches that were applied in this study. It contains five parts: (a) a description of the research instrument used to conduct the study; (b) a description of the population considered in the study; (c) the way in which the sample of the study was selected; (d) the methodology for data collection; and (e) an explanation of the procedure for analysis and statistical treatment of the data.

The study utilized survey methodology. The selection of the sample was done by stratified random sampling. Survey research studies are concerned with status. Leedy (1974) called survey research a descriptive research, and Kerlinger (1986) indicated that this type of survey research methodology frequently appears in educational settings. The survey research procedures and methods have been developed and used by statisticians, psychologists, political scientists, sociologists, and economists (Best, 1977; Kerlinger, 1986; Leedy, 1974; Tuckman, 1978). The categories of survey research include the personal interview, mail questionnaires, panel, and telephone interviews. Thomas (1985) posited that of all the data collection techniques, the most frequently used method is the questionnaire.

The researcher selected the questionnaire approach as the most feasible instrument for obtaining responses for this study because the data sought were of a factual nature that
could be gathered best by short responses. The survey instrument provides the most appropriate method of obtaining a substantial return rate within a limited period of time (Hayman, 1968; Kerlinger 1986). The questionnaire has been widely utilized in educational research to determine factual information, opinions, attitudes, perceptions, and interests (Kerlinger, 1986; VanDalen, 1979).

Description of the Research Instrument

The instrument used is the Student Satisfaction Inventory (SSI), the community, junior and technical college version by Noel-Levitz (1994). After a thorough search of the current literature and consultation with others who have been working in the field of student retention, the researcher considered the Noel-Levitz Student Satisfaction Inventory measures students’ satisfaction with a wide range of college experiences. Principles of consumer theory serve as the basis for the inventory construction; therefore, students are viewed as consumers who have a choice of whether or not to invest in education and where to enroll. In addition, students are seen as individuals who have definite expectations about what they want from their campus experience. This instrument collects student feedback based on their perceptions on over 100 items. This allows students to rate each item of the inventory following their perception of importance and specific expectation, as well as their satisfaction.

In addition to the information provided by students’ responses for each item, inventory composite scales offer a global perspective of students’ perceptions on each program. The scales would provide a good overview of students’ perceptions and
satisfaction, which would highlight the institutions' strengths and areas of improvement.

Seventy items deal with students' expectations; ten optional items are defined by the institution; six items assess the institution's commitment to specific student populations; nine items assess preenrollment factors; three summary items assess overall satisfaction with the institution; and 13 demographic items identify demographic characteristics of students. Finally, two optional items further identify the demographic characteristics of the students, such as their major or program.

In this instrument, the 70 items of expectation and six items that assess the institution's commitment to specific student populations are analyzed statistically and conceptually by factor analysis to provide the following 11 composite scales: academic advising and counseling, academic services, admissions and financial aid effectiveness, campus climate, campus support services, concern for the individual, instructional effectiveness, registration effectiveness, safety and security, service excellence, and student centeredness. Some items in the inventory contribute to more than one scale. The total number of items in the inventory is 113.

Reliability and Validity of the Instrument

The Student Satisfaction Inventory is a reliable instrument. It shows an exceptionally high internal reliability. Cronbach's coefficient alpha is .97 for the set of importance scores and .98 for the set of satisfaction scores. It also demonstrates good score reliability over time; the 3-week, test-retest reliability coefficient is .85 for importance scores and .84 for satisfaction scores.
There is also evidence to support the validity of the Student Satisfaction Inventory. Convergent validity was assessed by correlating satisfaction scores from the SSI with the 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 (USA Group Noel-Levitz, Inc., 1996, pp. 1-5).

The Student Satisfaction Inventory was developed by Lauri A. Schreiner and Stephanie L. Juillret (1994), with assistance from USA Group Noel-Levitz. Schreiner is associate professor of psychology at Eastern College in St. Davids, Pennsylvania, and Juillret is assistant professor of psychology at Wesley College in Dover, Delaware.

Research Population

The population of this study were all students enrolled at a 2-year community junior college during the fall semester of 1996 and the spring semester of 1997. A representative sample of 312 students was selected and surveyed. The population comprised students of various ages, gender, classification, ethnicity, and marital status at this college during the mentioned school year. The decision to study 312 students was made because the number is fairly representative of the total population. Moreover, 312 students would secure enough return and would be manageable. In order to select these students, the stratified random number procedure was used.
The strategy to implement this survey included the following:

1. Permission letters were obtained from the appropriate college authorities to conduct this study (see Appendix A).

2. An authorization to use the Student Satisfaction Inventory was obtained from Noel-Levits, Inc. (see Appendix C).

Selection of Sample Procedure

A stratified random sample of all the classes offered in the semester was made, out of which 24 classes comprising 312 out of all 3,600 students enrolled during the Fall 1996 and Spring 1997 school year were selected. The researcher obtained the list of all the enrolled students from the registrar’s office. From this list, a stratified random sample of every fifth course offered was picked. All the students enrolled in those classes constituted the sample groups. The total number of students in all the sample groups (classes), which were coded A1 through X24, was 312. The number of the sample classes was 24. These 312 students were asked to complete a questionnaire that would provide evaluative data for this study. The researcher administered the questionnaires to them with assistance from a designated staff member of the college. The questionnaires were properly administered and collected.

Data Collection Procedure

Data were collected using the Student Satisfaction Inventory questionnaire model provided by Noel-Levitz Inc. This questionnaire was seen by the researcher as the best
among other choices to satisfy the aims and objectives of this study. Permission to survey the students was obtained from the appropriate authority at the community college, and permission to use the Student Satisfaction Inventory (SSI) was obtained from Noel-Levitz. A list of all the enrolled students was obtained from the registrar’s office. A brief cover letter explaining the study and the importance of respondent’s cooperation was included in the top part of the instrument. The procedure for completing and returning the questionnaire was explained to the students. The researcher had personally visited this institution and administered the questionnaires to the students with the help of a designated staff member of the college and the faculty members in charge of the selected classes.

The targeted response rate was 50%. On collection of the answered questionnaires, the researcher found that some faculty members did not turn in their students’ questionnaires. Only 124 questionnaires (39%) of the 312 were returned. A telephone call to the assisting staff member was made by the researcher, and a reminder letter followed. On April 14, the researcher visited the college and was able to collect an additional 58 answered questionnaires from the assisting staff member who was assigned to coordinate and assist in this survey. This raised the number of returned questionnaires to 182 (58%) of the total questionnaires administered. The number was acceptable by the researcher since it exceeded the target.
Procedure for Analysis and Treatment of Data

Responses for each item were tabulated. A frequency count and a percentage were calculated for each item. The differences in frequency for each item were accounted for by random variation in sampling from the population of students. Independent variables were comprised of the demographic variables, namely, gender, age, ethnicity, class load, and employment. The dependent variables were comprised of the 11 composite scales from the Student Satisfaction Inventory that measure academic advising and counseling, academic services, admissions and financial aid, campus climate, campus support services, concern for the individual, instructional effectiveness, registration effectiveness, safety and security, service excellence, and student centeredness.

On students' satisfaction, a frequency table was used, and the hierarchy of how satisfied the students are with the institution was tabulated using the items' mean scores of satisfaction. A score of one was assigned to each item when the response was not satisfied at all. When a response to an item was not very satisfied, a score of two was assigned to it. A score of three was assigned to an item when the response was somewhat dissatisfied. When there was no response, a score of four was assigned. If a response was somewhat satisfied, a score of five was assigned to it. A score of six was assigned if the response was satisfied. When a response was very satisfied, a score of seven was assigned to it. The aim of this scoring was to obtain a sum of scores for each respondent on both importance and satisfaction.
The statistical analysis that was employed in this study involved the use of statistical package software for social science (SPSSS). The statistics included frequencies, means, percentages, standard deviation, and analysis of variances (MANOVA) and (ANOVA) to test mean differences. The statistical analysis took the following format:

Research Question 1: Are there any significant differences in students' satisfaction among the 11 satisfaction measures of the SSI? This question was analyzed using the descriptive statistics frequencies, means, percentages, and standard deviation. Two of these descriptive statistics, means and standard deviation, have been noted by Hinkle, Wiersma, and Jurs (1988) as a dependable, excellent tool in statistical measurement. The mean in statistics has been referred to by Thomas and Young (1989) as the most commonly used measure of central tendency, while the standard deviation is accepted as the best and most appropriately used measure of variation. Thomas and Young (1989) also noted that frequency distribution and percentages maximize the usefulness of statistical data by condensing large amounts of data into a manageable format.

Research Question 2: Do significant differences exist in students' satisfaction with retention programs with respect to their demographic characteristics of gender, age, ethnicity, class load, and employment? This was analyzed using descriptive statistics to determine the means standard deviations, and variances. A multivariate omnibus F-test (MANOVA) was used because of its ability to see if any significances existed among the multiple groups in the distribution. When the F-test in the multiple analysis showed any
significances, a univariate F-test (ANOVA) was conducted to determine the extent of significance. Ferguson (1981) stated that ANOVA has the ability to assess the relative magnitude of variations that may result from different sources and to ascertain whether a particular part of variation is greater than expectation under the null hypothesis. Hinkle, Wiersma, and Jurs (1988) described a one-way analysis of variance as the analysis of one independent variable with two or more dependent variables.

A post hoc t-test (Tukey HSD) method for multiple comparison was used when significant mean differences existed. The use of this method helps to find the pairwise differences between group means through multiple comparison among different groups. The t-test determined differences in means and their standard deviations. The analysis of variance (ANOVA) was used because of its ability to test differences in two or more groups, and Tukey was used because of its ability to measure unequal means. The alpha level of significance was set at .05, for ANOVA, and .10 for the pairwise comparison. Ferguson (1981) stated that ANOVA has the ability to assess the relative magnitude of variations that may result from different sources.
CHAPTER IV

ANALYSIS OF THE DATA

This chapter presents the analysis of the data with the aid of tables. The first section of the chapter describes the distribution of the questionnaire to the respondents and the percentage of returns according to classes and demographic characteristics (see Tables 1 and 2). The second section is organized according to the research questions; the analytical data collected in the survey are presented for each of the two research questions.

This study was designed to investigate students' satisfaction with retention programs in a 2-year community junior college. Research was based on the Student Satisfaction Inventory model developed by Juillreat and Schreiner (1994).

Description of the Sample

On March 8, 1997, 312 students of a 2-year community junior college in the Dallas area were surveyed. Data were obtained from responses to a demographic questionnaire and the Student Satisfaction Inventory that were returned by 182 (58%) of the total sample. Data describing the demographic characteristics of the responding sample were obtained from questions 99, 100, 101, 103, and 107 of the demographic questionnaires.

The statistical analysis of the data was designed to determine how satisfied the students are with the retention programs at the institution and also to determine whether
significant differences existed in their satisfaction based upon their demographic characteristics.

Table 1 shows the questionnaire distribution by coded classes, the number distributed to each class, the number returned, and their percentages. The total number of classes selected for sample was 24, and each class was coded (A1 through X24). A total of 312 (100%) questionnaires was distributed, and 182 (58%) were returned.

The alpha level of significance for the study was established at .05, and .10, and the analysis of variances (MANOVA), and (ANOVA) and the Tukey post hoc t-test for sample means were used to determine significant differences. The data were analyzed and presented in sections that describe the sample and the testing of the research questions, as outlined in chapter 1. Results derived from the data analysis are presented in appropriate tables and discussed in the related explanation.

Table 1 presents a breakdown of the classes sampled, the class codes, the total number of students given questionnaires in each class, the number of returns, and their percentages from each participating class. The table indicates that, out of the 312 students sampled, 182 returns were collected. Out of the 24 classes that contained these 312 students, eight classes had a 100% return, six classes had more than 50% returns, whereas ten classes had 0% returns, reflecting an overall return rate of 58%. This study used the Student Satisfaction Inventory (SSI), which has been widely used to measure student satisfaction with their institutions. The items in the instrument (113 in number) are statistically and conceptually grouped into 11 composite scales by factor analysis.
Table 1

**Number of Questionnaires Distributed and Percentage of Returns From Each Class**

<table>
<thead>
<tr>
<th>Class codes</th>
<th>Number distributed</th>
<th>Number returned</th>
<th>Percentage returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>14</td>
<td>10</td>
<td>71.00</td>
</tr>
<tr>
<td>B2</td>
<td>3</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>C3</td>
<td>14</td>
<td>14</td>
<td>100.00</td>
</tr>
<tr>
<td>D4</td>
<td>14</td>
<td></td>
<td>100.00</td>
</tr>
<tr>
<td>E5</td>
<td>18</td>
<td>18</td>
<td>100.00</td>
</tr>
<tr>
<td>F6</td>
<td>25</td>
<td>19</td>
<td>76.00</td>
</tr>
<tr>
<td>G7</td>
<td>14</td>
<td>14</td>
<td>100.00</td>
</tr>
<tr>
<td>H8</td>
<td>20</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>I9</td>
<td>19</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>J10</td>
<td>6</td>
<td>6</td>
<td>100.00</td>
</tr>
<tr>
<td>K11</td>
<td>24</td>
<td>18</td>
<td>75.00</td>
</tr>
<tr>
<td>L12</td>
<td>7</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>M13</td>
<td>14</td>
<td>14</td>
<td>100.00</td>
</tr>
<tr>
<td>N14</td>
<td>21</td>
<td>14</td>
<td>66.00</td>
</tr>
<tr>
<td>O15</td>
<td>12</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>P16</td>
<td>3</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Q17</td>
<td>20</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 1 (continued)

<table>
<thead>
<tr>
<th>Class codes</th>
<th>Number distributed</th>
<th>Number returned</th>
<th>Percentage returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>R18</td>
<td>7</td>
<td>7</td>
<td>100.00</td>
</tr>
<tr>
<td>S19</td>
<td>6</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>T20</td>
<td>21</td>
<td>18</td>
<td>85.00</td>
</tr>
<tr>
<td>U21</td>
<td>10</td>
<td>7</td>
<td>70.00</td>
</tr>
<tr>
<td>V22</td>
<td>9</td>
<td>9</td>
<td>100.00</td>
</tr>
<tr>
<td>W23</td>
<td>7</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>X24</td>
<td>4</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>312(N)</td>
<td>182(n)</td>
<td>58.00</td>
</tr>
</tbody>
</table>

These 11 composite scales (satisfaction measures), which are drawn and grouped by factor analysis (see Appendix D) are as follows:

1. Academic Advising/Counseling assesses the comprehensiveness of the academic advising program, evaluating advisors' knowledge, competence, approachability, and personal concern for students' success.

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

3. Admissions and Financial Aid measures the extent to which admissions counselors are competent and knowledgeable, along with students' perceptions of the effectiveness and availability of financial aid programs.
4. Campus Climate measures the extent to which the institution provides experiences that promote a sense of campus pride and belonging, which takes into consideration all forms of diversity and beliefs.

5. Campus Support Services assesses the effectiveness of student life programs offered by the institution, covering issues ranging from athletics to residence life where applicable.

This scale also assesses campus policies and procedures to determine students' perceptions of their rights and responsibilities.

6. Concern for the Individual assesses the institution's commitment to the total welfare and comfortability of each individual student with or without disability or handicap.

7. Instructional Effectiveness measures students' academic experience, the curriculum, instructional materials and presentation, and the campus's overriding commitment to academic excellence.

8. Registration Effectiveness assesses issues associated with registration, billing, and the extent to which the registration process is smooth and effective.

9. Safety and Security measures the institution's responsiveness to students' personal and property safety and security on the campus.

10. Service Excellence measures the areas of campus where quality service and personal concern for students are rated most and least favorable.
11. Student Centeredness measures the institution’s attitude toward students and the extent to which they feel welcome and valued. These scales, which are considered major retention programs that influence students’ decisions to persist or drop out of college, measure their level of satisfaction with the institution.

Table 2 shows the students’ demographic characteristics. The demographic characteristics are broken down into five classifications: (a) gender, (b) age, (c) ethnicity, (d) class load, and (e) employment.

An examination of the returns from the demographic classification statistics showed that, out of the 182 respondents in the study, the majority are females. Only a few are males. A greater percentage of students in the study were in the 19 to 24 age group, followed by the 25 to 34 age group; very few were under 19 and over 45.

The students were mostly Caucasians/Whites, followed by African Americans/Blacks, then Hispanics; there were few Asians and other nationalities. A greater percentage of the students were full-time students, and fewer students were part-time students.

A greater percentage of the students worked full-time off-campus, followed by part-time off-campus workers. Only a few students were unemployed.
Table 2

**Demographic Characteristics of Students**

<table>
<thead>
<tr>
<th>Demographic classification</th>
<th>Number of returns</th>
<th>Percentage of return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>119</td>
<td>68.4</td>
</tr>
<tr>
<td>Male</td>
<td>55</td>
<td>31.6</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 &amp; Under</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>19 to 24</td>
<td>63</td>
<td>36.4</td>
</tr>
<tr>
<td>25 to 34</td>
<td>61</td>
<td>35.3</td>
</tr>
<tr>
<td>35 to 44</td>
<td>30</td>
<td>17.3</td>
</tr>
<tr>
<td>45 &amp; +</td>
<td>16</td>
<td>9.2</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>50</td>
<td>28.9</td>
</tr>
<tr>
<td>American Indian</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Asian/Pacific</td>
<td>6</td>
<td>3.5</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>68</td>
<td>39.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>25</td>
<td>14.5</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>3.5</td>
</tr>
</tbody>
</table>

*(table continues)*
Table 2 (Continued)

Demographic Characteristics of Students

<table>
<thead>
<tr>
<th>Demographic classification</th>
<th>Number of returns</th>
<th>Percentage of return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class Load</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>100</td>
<td>57.1</td>
</tr>
<tr>
<td>Part-time</td>
<td>75</td>
<td>42.9</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time off/Campus</td>
<td>82</td>
<td>48.2</td>
</tr>
<tr>
<td>Part-time off/Campus</td>
<td>51</td>
<td>30.0</td>
</tr>
<tr>
<td>Full-time on/Campus</td>
<td>1</td>
<td>.6</td>
</tr>
<tr>
<td>Part-time on/Campus</td>
<td>5</td>
<td>2.9</td>
</tr>
<tr>
<td>Not employed</td>
<td>31</td>
<td>18.2</td>
</tr>
</tbody>
</table>

The statistical analysis of the data that follows is based on the two research questions postulated in the study.

1. What differences exist (if any) in students' satisfaction among the 11 satisfaction measures of the SSI?

2. What differences exist (if any) in students' satisfaction with retention programs with respect to their demographic characteristics of gender, age, ethnicity, class load, and employment?
Table 3

Summary Means and Standard Deviation for Students' Satisfaction in All 11 Satisfaction Measures of the Student Satisfaction Inventory (SSI)

<table>
<thead>
<tr>
<th>SSI variable</th>
<th>Means</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising/Counseling</td>
<td>4.85</td>
<td>1.21</td>
</tr>
<tr>
<td>Academic Services</td>
<td>5.11</td>
<td>1.05</td>
</tr>
<tr>
<td>Admission/Financial Aid</td>
<td>4.62</td>
<td>1.19</td>
</tr>
<tr>
<td>Campus Climate</td>
<td>4.88</td>
<td>1.04</td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>4.52</td>
<td>1.10</td>
</tr>
<tr>
<td>Concern for Individual</td>
<td>4.96</td>
<td>1.12</td>
</tr>
<tr>
<td>Institutional Effectiveness</td>
<td>5.21</td>
<td>.95</td>
</tr>
<tr>
<td>Registration Effectiveness</td>
<td>5.14</td>
<td>.99</td>
</tr>
<tr>
<td>Safety/Security</td>
<td>3.94</td>
<td>1.31</td>
</tr>
<tr>
<td>Service Excellence</td>
<td>4.82</td>
<td>1.03</td>
</tr>
<tr>
<td>Student Centeredness</td>
<td>4.97</td>
<td>1.08</td>
</tr>
</tbody>
</table>

Research Question 1

What differences are there in students’ satisfaction among the 11 satisfaction measures of the SSI? Frequencies and percentages were used to tally students responses, while the total demographic means of the variables and their group of scores were used to determine differences in satisfaction among the satisfaction measures. In Table 4, a one-
way analysis of variance (ANOVA) was conducted using all the satisfaction measures to see if any significant differences existed in students' satisfaction among them.

Table 4

One-way Analysis of Variance (ANOVA) of the 11 Satisfaction Measures

<table>
<thead>
<tr>
<th>SSI variables</th>
<th>DF</th>
<th>Means</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising/Counseling</td>
<td>1</td>
<td>4.9</td>
<td>6.42</td>
<td>.012**</td>
</tr>
<tr>
<td>Academic Services</td>
<td>1</td>
<td>5.1</td>
<td>.86</td>
<td>.356</td>
</tr>
<tr>
<td>Admission/Financial Aid</td>
<td>1</td>
<td>4.6</td>
<td>2.20</td>
<td>.140</td>
</tr>
<tr>
<td>Campus Climate</td>
<td>1</td>
<td>4.9</td>
<td>40.46</td>
<td>.000***</td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>1</td>
<td>4.5</td>
<td>133.91</td>
<td>.000**</td>
</tr>
<tr>
<td>Concern for Individual</td>
<td>1</td>
<td>5.0</td>
<td>70.16</td>
<td>.000***</td>
</tr>
<tr>
<td>Institutional Effectiveness</td>
<td>1</td>
<td>5.2</td>
<td>73.52</td>
<td>.000**</td>
</tr>
<tr>
<td>Registration Effectiveness</td>
<td>1</td>
<td>5.1</td>
<td>136.40</td>
<td>.000**</td>
</tr>
<tr>
<td>Safety/Security</td>
<td>1</td>
<td>3.9</td>
<td>.02</td>
<td>.897</td>
</tr>
<tr>
<td>Service Excellence</td>
<td>1</td>
<td>4.8</td>
<td>39.04</td>
<td>.000**</td>
</tr>
<tr>
<td>Student Centeredness</td>
<td>1</td>
<td>5.0</td>
<td>70.42</td>
<td>.000**</td>
</tr>
</tbody>
</table>

** Denotes significance at .05 alpha level; \( F = F \) Value; \( DF = \) Degree of Freedom

The result of the above analysis of variance indicated that significant differences existed among eight of the 11 retention measures (retention programs), whereas no differences were found among three dependent variables in the SSI. (N/B: satisfaction
measures, retention programs, and the dependent variables are used synonymously in this study.)

The test of within-subjects effects indicates that $F$-value $= 53.091$ and that the level of significance $= .000$. This means that significant differences exist in students' satisfaction among the 11 satisfaction measures, which indicates that $H_0 = H_a$ and shows that significant differences do exist in students' satisfaction among the 11 satisfaction measures of the Student Satisfaction Inventory (SSI).

Table 5

Test of Within-Subject Effects to See if $H_0 = H_a$ (*$H_0$ = All Are Equal!*) and ($H_a$ = All Are not Equal)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type III sum of sq.</th>
<th>df</th>
<th>Mean sq.</th>
<th>$F$</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Variables</td>
<td>219.380</td>
<td>10</td>
<td>21.94</td>
<td>53.091</td>
<td>.000</td>
</tr>
</tbody>
</table>

Research Question 2

What differences exist in students' satisfaction with retention programs with respect to their demographic characteristics of gender, age, ethnicity, class load, and employment? This was analyzed using descriptive statistics and the Multivariate Omnibus $F$-test (MANOVA). A multivariate Omnibus $F$-test (MANOVA) was used to see if any significant differences existed in students' satisfaction with respect to their demographic characteristics using their mean scores. Using all the effect method in the multivariate
analysis, the F-value, degrees of freedom (df), and the significance level of each variable were determined. When a significant difference was determined in the multivariate F-test analysis, a univariate F-test (ANOVA) was conducted for between-subjects effects. A multiple comparisons analysis was conducted using Tukey’s post hoc t-test for pairwise differences to determine if any significant differences existed between any two groups.

Table 6

Multivariate Omnibus F-test

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Value</th>
<th>F</th>
<th>df</th>
<th>Error df</th>
<th>Sig</th>
<th>Eta Sq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.903</td>
<td>1.500</td>
<td>11.000</td>
<td>153.000</td>
<td>.137</td>
<td>.097</td>
</tr>
<tr>
<td>Age</td>
<td>.695</td>
<td>1.740</td>
<td>33.000</td>
<td>436.739</td>
<td>.008**</td>
<td>.114</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>.797</td>
<td>1.360</td>
<td>22.000</td>
<td>248.000</td>
<td>.027*</td>
<td>.107</td>
</tr>
<tr>
<td>Class Load</td>
<td>.871</td>
<td>2.070</td>
<td>11.000</td>
<td>154.000</td>
<td>.025*</td>
<td>.129</td>
</tr>
<tr>
<td>Employment</td>
<td>.860</td>
<td>1.010b</td>
<td>22.000</td>
<td>248.000</td>
<td>.452</td>
<td>.073</td>
</tr>
</tbody>
</table>

** Denotes highly significance at .05 level.

* Denotes significance at .05 level.

After the completion of the multivariate analysis, no significant differences were found in students’ satisfaction based on gender and employment when the alpha level of significance was .05 (see Table 6). Significant differences (.008), (.027) and (.025) were found in students’ satisfaction based on age, ethnicity and class load in the multivariate analysis at a .05 significance level (see Table 6).
Univariate F-test, One-way Analysis of Variances (ANOVA) was conducted using students' demographical variables of gender, age, ethnicity, class load, and employment to see in what variables significant differences existed. The results of these tests showed that based on age, significant differences were found in four dependent variables of the SSI viz. Campus Climate (.022 < .05), Campus Support Services (.001 < .05), Institutional Effectiveness (.021 < .05), and Safety/Security (.008 < .05) (see Table 7), also, based on ethnicity, significant differences were found in two variables of the SSI viz. Admissions/Financial Aid (.021 < .05), and Safety/Security (.009 < .05) (see Table 10). No significant differences were found when the Analysis of Variances (ANOVA) was conducted based on Gender, Class Load, and Employment (see Tables 7, 12, and 13 respectively).
Table 7

One-way Analysis of Variance (ANOVA) Summary: Comparison of Student Satisfaction

Based on Gender in All 11 Variables of the SSI

<table>
<thead>
<tr>
<th>SSI Variables</th>
<th>DF</th>
<th>Mean</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising/Counseling</td>
<td>1</td>
<td>4.9</td>
<td>.71</td>
<td>.402</td>
</tr>
<tr>
<td>Academic Services</td>
<td>1</td>
<td>5.1</td>
<td>.08</td>
<td>.776</td>
</tr>
<tr>
<td>Admission/Financial Aid</td>
<td>1</td>
<td>4.7</td>
<td>.25</td>
<td>.617</td>
</tr>
<tr>
<td>Campus Climate</td>
<td>1</td>
<td>4.9</td>
<td>1.31</td>
<td>.253</td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>1</td>
<td>4.5</td>
<td>.02</td>
<td>.886</td>
</tr>
<tr>
<td>Concern for Individual</td>
<td>1</td>
<td>5.0</td>
<td>1.42</td>
<td>.234</td>
</tr>
<tr>
<td>Institutional Effectiveness</td>
<td>1</td>
<td>5.2</td>
<td>.62</td>
<td>.433</td>
</tr>
<tr>
<td>Registration Effectiveness</td>
<td>1</td>
<td>5.1</td>
<td>.03</td>
<td>.861</td>
</tr>
<tr>
<td>Safety/Security</td>
<td>1</td>
<td>3.9</td>
<td>3.49</td>
<td>.063</td>
</tr>
<tr>
<td>Service Excellence</td>
<td>1</td>
<td>4.8</td>
<td>.35</td>
<td>.553</td>
</tr>
<tr>
<td>Student Centeredness</td>
<td>1</td>
<td>5.0</td>
<td>.75</td>
<td>.389</td>
</tr>
</tbody>
</table>

Note: No significant difference at the .05 alpha level of significance; $F = F$ value; $DF =$ degree of freedom.
Table 8

One-way Analysis of Variance (ANOVA) Summary: Comparison of Students' Satisfaction Based on Age in All 11 Variables of the SSI

<table>
<thead>
<tr>
<th>SSI variables</th>
<th>DF</th>
<th>Mean</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admissions/Counseling</td>
<td>3</td>
<td>5.0</td>
<td>1.66</td>
<td>.179</td>
</tr>
<tr>
<td>Academic Services</td>
<td>3</td>
<td>5.1</td>
<td>2.74</td>
<td>.064</td>
</tr>
<tr>
<td>Admissions/Financial Aid</td>
<td>3</td>
<td>4.7</td>
<td>2.33</td>
<td>.077</td>
</tr>
<tr>
<td>Campus Climate</td>
<td>3</td>
<td>5.0</td>
<td>3.29</td>
<td>.022*</td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>3</td>
<td>4.6</td>
<td>5.47</td>
<td>.001**</td>
</tr>
<tr>
<td>Concern for Individual</td>
<td>3</td>
<td>5.1</td>
<td>2.24</td>
<td>.085</td>
</tr>
<tr>
<td>Institutional Effectiveness</td>
<td>3</td>
<td>5.3</td>
<td>3.33</td>
<td>.021*</td>
</tr>
<tr>
<td>Registration Effectiveness</td>
<td>3</td>
<td>5.2</td>
<td>1.13</td>
<td>.340</td>
</tr>
<tr>
<td>Safety and Security</td>
<td>3</td>
<td>3.9</td>
<td>4.11</td>
<td>.008**</td>
</tr>
<tr>
<td>Service Excellence</td>
<td>3</td>
<td>4.9</td>
<td>1.11</td>
<td>.346</td>
</tr>
<tr>
<td>Student Centeredness</td>
<td>3</td>
<td>5.1</td>
<td>1.71</td>
<td>.168</td>
</tr>
</tbody>
</table>

* Denotes significance at the .05 alpha level of significance.

** Denotes highly significance at the .05 alpha level of significance.

F = F Values; DF = degrees of freedom.
Table 9

Pairwise Comparison (Tukey Test) of Sample Means Generated by the Students on Campus Climate, Campus Support Services, Institutional Effectiveness, and Safety/Security Variables Indicating Significance by Age Groups

<table>
<thead>
<tr>
<th>SSI Variables</th>
<th>Sample means</th>
<th>Age Groups</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Climate</td>
<td>5.0</td>
<td>19 to 24 - 2</td>
<td>5.6*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.7</td>
<td>25 to 34 - 3</td>
<td>5.6*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.7</td>
<td>35 to 44 - 4</td>
<td>5.6*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.6</td>
<td>45+</td>
<td>- 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>4.9</td>
<td>19 to 24 - 2</td>
<td>4.1*</td>
<td>4.4*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1</td>
<td>25 to 34 - 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.4</td>
<td>35 to 44 - 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.9</td>
<td>45+</td>
<td>4.1*</td>
<td>4.4*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Effectiveness</td>
<td>5.3</td>
<td>19 to 24 - 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.0</td>
<td>25 to 34 - 3</td>
<td>5.8*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.1</td>
<td>35 to 44 - 4</td>
<td>5.8*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.8</td>
<td>45+</td>
<td>- 5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(table continues)
Table 9 (continued)

**Pairwise Comparison (Tukey Test) of Sample Means Generated by the Students on Campus Climate, Campus Support Services, Institutional Effectiveness, and Safety/Security Variables Indicating Significance by Age Groups**

<table>
<thead>
<tr>
<th>SSI Variables</th>
<th>Sample means</th>
<th>Age Groups</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety/Security</td>
<td>4.3</td>
<td>19 to 24 -</td>
<td>2</td>
<td>3.5*</td>
<td>4.1</td>
<td>3.5</td>
</tr>
<tr>
<td></td>
<td>3.5</td>
<td>25 to 34 -</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.9</td>
<td>35 to 44 -</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1</td>
<td>45+</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Denotes pairs of groups that significantly differ from each other at a .10 level of significance.
### Table 10

**One-way Analysis of Variance (ANOVA) Summary: Comparison Students’ Satisfaction Based on Ethnicity in All 11 Variables of the SSI**

<table>
<thead>
<tr>
<th>SSI variables</th>
<th>DF</th>
<th>Mean</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising/Counseling</td>
<td>2</td>
<td>4.84</td>
<td>1.75</td>
<td>.177</td>
</tr>
<tr>
<td>Academic Services</td>
<td>2</td>
<td>5.17</td>
<td>1.27</td>
<td>.286</td>
</tr>
<tr>
<td>Admission/Financial Aid</td>
<td>2</td>
<td>4.65</td>
<td>4.07</td>
<td>.021*</td>
</tr>
<tr>
<td>Campus Climate</td>
<td>2</td>
<td>4.90</td>
<td>1.44</td>
<td>.241</td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>2</td>
<td>4.55</td>
<td>2.12</td>
<td>.124</td>
</tr>
<tr>
<td>Concern for Individual</td>
<td>2</td>
<td>4.98</td>
<td>.33</td>
<td>.721</td>
</tr>
<tr>
<td>Institutional Effectiveness</td>
<td>2</td>
<td>5.24</td>
<td>.08</td>
<td>.920</td>
</tr>
<tr>
<td>Registration Effectiveness</td>
<td>2</td>
<td>5.18</td>
<td>1.77</td>
<td>.174</td>
</tr>
<tr>
<td>Safety/Security</td>
<td>2</td>
<td>3.95</td>
<td>4.82</td>
<td>.009**</td>
</tr>
<tr>
<td>Service Excellence</td>
<td>2</td>
<td>4.84</td>
<td>1.59</td>
<td>.208</td>
</tr>
<tr>
<td>Student Centeredness</td>
<td>2</td>
<td>4.00</td>
<td>2.62</td>
<td>.077</td>
</tr>
</tbody>
</table>

* Denotes significant difference at the .05 alpha level.

** Denotes highly significant difference at the .05 alpha level.

$F = F$ value; $DF =$ degree of freedom; $N = 137$
Table 11

Pairwise Comparison (Tukey Test) of Sample Means Generated Students on Admission/Financial Aid and Safety/Security Variables of the SSI Indicating Significance by Ethnicity

<table>
<thead>
<tr>
<th>SSI variable</th>
<th>Sample mean</th>
<th>Ethnicity</th>
<th>1</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission/Financial Aid</td>
<td>4.9</td>
<td>African American</td>
<td>-1</td>
<td>4.4*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.4</td>
<td>Caucasian/White</td>
<td>-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.8</td>
<td>Hispanics</td>
<td>-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety/Security</td>
<td>4.2</td>
<td>African American</td>
<td>-1</td>
<td>3.6*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.6</td>
<td>Caucasian/White</td>
<td>-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.4</td>
<td>Hispanics</td>
<td>-5</td>
<td>3.6*</td>
<td></td>
</tr>
</tbody>
</table>

* Denotes pairs of groups that significantly differ from each other at a .10 significance level.
Table 12 indicates that, from the analysis of variances (ANOVA), no significant differences were found when students' satisfaction with retention programs as represented by the 11 retention measures were compared based on students' class load.

**Table 12**

**One-way Analysis of Variance (ANOVA) Summary:** Comparison of Student Satisfaction Based on Class Load in All 11 Variables of the SSI

<table>
<thead>
<tr>
<th>SSI variables</th>
<th>DF</th>
<th>Mean</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising/Counseling</td>
<td>1</td>
<td>4.87</td>
<td>.795</td>
<td>.374</td>
</tr>
<tr>
<td>Academic Services</td>
<td>1</td>
<td>5.10</td>
<td>.274</td>
<td>.601</td>
</tr>
<tr>
<td>Admission/Financial Aid</td>
<td>1</td>
<td>4.64</td>
<td>.263</td>
<td>.608</td>
</tr>
<tr>
<td>Campus Climate</td>
<td>1</td>
<td>4.89</td>
<td>1.560</td>
<td>.214</td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>1</td>
<td>4.54</td>
<td>2.240</td>
<td>.136</td>
</tr>
<tr>
<td>Concern for Individual</td>
<td>1</td>
<td>4.97</td>
<td>.840</td>
<td>.361</td>
</tr>
<tr>
<td>Institutional Effectiveness</td>
<td>1</td>
<td>5.21</td>
<td>1.350</td>
<td>.247</td>
</tr>
<tr>
<td>Registration Effectiveness</td>
<td>1</td>
<td>5.13</td>
<td>.341</td>
<td>.560</td>
</tr>
<tr>
<td>Safety/Security</td>
<td>1</td>
<td>3.91</td>
<td>3.143</td>
<td>.078</td>
</tr>
<tr>
<td>Service Excellence</td>
<td>1</td>
<td>4.82</td>
<td>.092</td>
<td>.762</td>
</tr>
<tr>
<td>Student Centeredness</td>
<td>1</td>
<td>4.99</td>
<td>1.181</td>
<td>.278</td>
</tr>
</tbody>
</table>

No significant differences at the .05 alpha level.

F = F value; DF = degree of freedom
Table 13 indicates that, from the analysis of variance (ANOVA), no significant
differences were found when students’ satisfaction with retention programs as represented
by the 11 retention measures were compared based on students’ employment.

Table 13

One-way Analysis of Variance (ANOVA) Summary: Comparison of Students’
Satisfaction Based on Employment in All 11 Variables of the SSI

<table>
<thead>
<tr>
<th>SSI variable</th>
<th>DF</th>
<th>Mean</th>
<th>F</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising/Counseling</td>
<td>2</td>
<td>4.8</td>
<td>.87</td>
<td>.420</td>
</tr>
<tr>
<td>Academic Services</td>
<td>2</td>
<td>5.1</td>
<td>.39</td>
<td>.675</td>
</tr>
<tr>
<td>Admission/Financial Aid</td>
<td>2</td>
<td>4.6</td>
<td>.67</td>
<td>.513</td>
</tr>
<tr>
<td>Campus Climate</td>
<td>2</td>
<td>4.8</td>
<td>1.59</td>
<td>.207</td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>2</td>
<td>4.5</td>
<td>1.81</td>
<td>.166</td>
</tr>
<tr>
<td>Concern for Individual</td>
<td>2</td>
<td>4.9</td>
<td>.38</td>
<td>.683</td>
</tr>
<tr>
<td>Institution Effectiveness</td>
<td>2</td>
<td>5.2</td>
<td>.86</td>
<td>.426</td>
</tr>
<tr>
<td>Registration Effectiveness</td>
<td>2</td>
<td>5.1</td>
<td>.15</td>
<td>.864</td>
</tr>
<tr>
<td>Safety/Security</td>
<td>2</td>
<td>3.9</td>
<td>.25</td>
<td>.780</td>
</tr>
<tr>
<td>Service Excellence</td>
<td>2</td>
<td>4.8</td>
<td>.39</td>
<td>.678</td>
</tr>
<tr>
<td>Student Centeredness</td>
<td>2</td>
<td>4.9</td>
<td>.86</td>
<td>.426</td>
</tr>
</tbody>
</table>

Note: No significant differences at .05 alpha level; F = F value; DF = degree of freedom.
Summary of Findings

The following is a summary of major findings in the study:

1. There are significant differences in students' satisfaction among eight of the 11 satisfaction measures (eight of the 11 retention programs) of the SSI.

2. Significant differences did not exist among three of the 11 satisfaction measures (three of the 11 retention programs) of the SSI.

Table 4 shows that, of the 11 retention programs used in this study, the students' satisfaction differed significantly in eight areas, namely, advising/counseling, campus climate, campus support services, concern for individual, institutional effectiveness, registration effectiveness, service excellence, and student centeredness. There was no significant difference in students' satisfaction with three of the retention programs namely, academic services, admission/financial aid, and safety/security. The disparity in students' satisfaction with the eight retention programs could be for the fact that students' expectations in those areas were differently met, hence, the differences in their satisfaction with them. The students' satisfaction with three retention programs showed no significant difference, and judging from the total mean scores, the students were somewhat dissatisfied with the safety/security program. The study revealed that based on students' demographics, no significant differences were found in students' satisfaction with respect to their gender, class load, and employment. In gender, no significant difference was found in the satisfaction of male and female students with any of the retention programs.
In class load, a difference existed only when all the variables were considered together in a multivariate analysis (see Table 4), but, when a univariate $F$-test (ANOVA) was conducted, there was no significant difference found in the satisfaction of full-time and part-time students (see Table 11).

There was no significant difference found in students' satisfaction based on their employment status; however, significant differences exist in two of the demographic areas—age and ethnicity. In age, a one-analysis of variance (ANOVA) indicated significant differences in four variables, campus climate ($0.022 < 0.05$), and safety/security ($0.008 < 0.05$).

A pairwise comparison analysis indicated that, in campus climate, a significant difference existed in the satisfaction of the 19 to 24 age group, 25 to 34 age group, 34 to 44 age group with those of the 45 and over age group. In campus support services, significant differences existed in the satisfaction of the 19 to 24 age group and the 45 and over age group, with those of the 25 to 34 age group and the 35 to 44 age group.

Significant differences existed in the area of institutional effectiveness. The satisfaction of the 25 to 34 age group and the 35 to 44 age group significantly differed from that of the 45 and over age group. In safety/security, the satisfaction of the 19 to 24 age group (surprisingly) significantly differed from that of the 25 to 34 age group.

In ethnicity, a one-way analysis of variance (ANOVA) indicated significant differences in two variables, admission/financial aid ($0.021 < 0.05$) and safety/security ($0.009 < 0.05$).
A pairwise comparison analysis indicated that in admission/financial aid, a significant difference existed in the satisfaction of African American students and that of Caucasian/White students. From this analysis, judging from the mean scores, one could say that the African American students were more satisfied in the admission/financial aid program than their Caucasian/White counterparts. In safety/security, both African American and Hispanic students showed a significant difference in satisfaction compared to those of Caucasian/White students. Judging from the high mean scores, it could be said that both the African American and the Hispanic students feel safer and more satisfied with safety/security program than the Caucasian/White students.
CHAPTER V

SUMMARY OF THE STUDY, DISCUSSION OF FINDINGS AND IMPLICATIONS,
SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The chapter presents a summary of the study, including major findings on students' satisfaction with retention programs. These findings are discussed in relation with relevant findings from the review of related literature. Conclusions and recommendations are made based on the findings. This chapter is divided into the following sections: summary of the study, discussion of findings and implications, summary of the findings, conclusions, and recommendations.

Summary of the Study

The primary purpose of this study is to investigate students' perception of and satisfaction with retention programs in an urban community junior college in the Southwest United States. In doing this, relevant findings from the review of related literature are considered. The emphases of this investigation as outlined in the research questions are as follows:

1. To determine whether there are any significant differences in students' satisfaction with retention programs among the 11 satisfaction measures of the SSI.
2. To determine whether any significant differences exist in students' satisfaction with retention programs based on their demographic characteristics of gender, age, ethnicity, class load, and employment.

3. To draw conclusions from the study based on the findings and also to make recommendations based on the literature review and data analysis.

The information derived from the related literature review and the data obtained from the survey instruments developed by Schreiner and Juillreat (1994) were used to determine the students' perceptions of and satisfaction with retention programs at the 2-year community college. The questionnaires were administered to 312 students in the community college during the fall semester of 1996 and the spring semester of 1997. Of the number sampled, 182 responses (58%) were received.

To accomplish the purposes of the study, certain statistical treatments were applied to analyze the data. The statistics, which included frequencies, percentages, means and standard deviations, were used to determine students' perceptions of and satisfaction with the 11 satisfaction measures (retention programs) of the Student Satisfaction Inventory (SSI). One-way analysis of variance (ANOVA) was used to determine whether significant differences existed in students' satisfaction among the 11 retention measures of the Student Satisfaction Inventory (SSI) and to determine whether any significant differences existed in students' satisfaction based on their demographic characteristics of gender, age, ethnicity, class load, and employment. The level of significance for the one-way ANOVA was set at .05. When significant differences were discovered, the Tukey test of multiple
comparison was conducted to identify pairs of groups that were significantly different at the .10 level of significance. The .10 level of significance was used to reduce the chances of omitting any possible significance in any group.

Discussion of Findings and Implications

The findings of this study which resulted from the statistical analysis of data are presented in relation to students’ perceptions of and satisfaction with retention programs among the 11 retention programs are contained in the Student Satisfaction Inventory, and in consideration of their satisfaction with respect to the demographic characteristics of gender, age, ethnicity, class load, and employment. This section also incorporates a discussion concerning some theories on student satisfaction and retention programs.

The findings indicate that significant differences exist in students’ satisfaction among the 11 satisfaction measures, meaning that students’ perceptions of and satisfaction with each retention program differ significantly. In the area of campus climate, campus support services, concern for individual, institutional effectiveness, registration effectiveness, service excellence, and student centeredness, students have varied opinions and perceptions, hence varied satisfaction. Some students may be satisfied in one or more of these programs, while others may be dissatisfied with them.

In the areas of academic services, admission/financial aid, and safety/security, the students are unanimous in their satisfaction with academic services, and admission/financial aid. They are unanimous in their dissatisfaction with safety/security program.
The findings further indicate that, when students' satisfaction was based on their demographic characteristics, there were no differences in their satisfaction based on their gender. This means that both males and females are equally satisfied or dissatisfied in any of the satisfaction measures. It also indicates that, when satisfaction is based on class load, the full-time students show no significant differences in any of the retention programs from the part-time students. On employment, the students show no significant difference in their satisfaction with retention programs. Both full-time employed students, the part-time employed students, and unemployed students are all equally satisfied or equally dissatisfied with each of the 11 retention programs.

The study indicates, however, that significant differences exist in students' satisfaction with retention programs in relation to their age and ethnicity. On their age, there was a significant difference between the satisfaction of the 25 to 34 age group and that of the 45 and over age group, with the 45 and over age group being more satisfied in the area of campus climate. In the area of campus support services, significant differences exist in student satisfaction between the 24 to 34 age group and that of the 19 to 24 age group, and the 45 and over age group, with the 25 to 34 age group being less satisfied. The study also indicates that students' satisfaction with institutional effectiveness program differ significantly between the 25 to 34 age group and that of the 45 and over age group with the 45 and over age group more satisfied. The analysis indicates that significant differences exist in the area of safety/security between the 19 to 24 age group and that of the 25 to 34 age group, with the 19 to 24 age group more satisfied.
The analysis of variance (ANOVA) showed that based on ethnicity, significant differences exist in the areas of academic services and safety/security. A post hoc t-test for pairwise comparison indicate that, based on ethnicity, Caucasian/White students’ satisfaction with safety/security program differed significantly from that of African American/Black and Hispanic students’, with Caucasian/Whites less satisfied. In the area of student centeredness, African American/Black students’ satisfaction differed significantly from that of Caucasian/White students, with African American students more satisfied.

Based on the above findings, the following are some discussions and relevant references concerning human satisfaction. Researchers and psychologists believe that, in order to understand organizational health and human satisfaction, it is important to study basic principles of human needs and motivation. Several theories and studies have been developed for the purposes of explaining satisfaction; all use different approaches and techniques. Herzberg (1966), in his two-factor theory of motivation, postulated that the worker is dissatisfied with the job when the job does not allow him or her to meet adequately his or her physiological needs, such as hunger or danger (in this case, the student and his/her school). Twery et al. (1950) held that satisfaction is not a unidimensional variable, but that it is more properly conceived as having a number of independent dimensions. Hoppock (1935) used a unidimensional approach in which he postulated that satisfaction represents a general state of mind toward ones commitment which has no single referent. All of these theories seem to agree, however, that
satisfaction is one of the most important elements in improving morale. Community junior colleges are vital resources in developing and improving the morale and satisfaction of all kinds of students in transition or otherwise.

The findings discussed in Chapter 4 indicate that community college students at the institution are generally slightly satisfied with almost all their retention programs, but somewhat dissatisfied with the safety/security program. They were unanimous in their satisfaction with academic services, admission/financial aid, and unanimous in their dissatisfaction with safety/security program. The study found that students were not unanimous in their satisfaction with advising/counseling, campus climate, campus support services, concern for individual, institutional effectiveness, registration effectiveness, service excellence, and student centeredness.

The study also suggests that personal and demographic characteristics have a great impact on students' satisfaction when analysis is based on age and ethnicity.

The primary purpose in this study was to investigate students' perceptions of and satisfaction with retention programs in a 2-year community college. The community college has the responsibility of bridging the gap between secondary and university education. Thus, adequate and successful measures for ensuring high levels of students' satisfaction are necessary and required in the institution. The findings resulting from this study would provide basic information for administrators and retention officers in developing effective programs of student retention.
It is not entirely surprising to discover that safety/security aspect attracted a dissatisfaction among the students considering the location, size, and infrastructural design and characteristics of the institution. More has been written about safety/security in a college setting. Why? Perhaps institutional safety/security is more important or more complex than curriculum, instruction or student services. Institutional security is so important that many writers think it feasible to persuade administrators to change organizational charts to include well-established safety/security programs.

Summary of Findings

The major findings that resulted from the present study are as follows:

1. Significant differences exist in students' satisfaction among the 11 satisfaction measures of the Student Satisfaction Inventory (SSI).

2. Gender has no significant effect on students' perceptions of and satisfaction with retention programs in the institution.

3. Class load has no significant effect on students' perceptions of and satisfaction with retention programs in the institution.

4. Employment has no significant effect on students' perceptions of and satisfaction with retention programs in the institution.

5. Ethnicity has a significant effect on students' perceptions of and satisfaction with retention programs in the institution.

6. Age has a significant effect on students' perceptions of and satisfaction with retention programs in the institution.
7. The 45 and over age group has higher satisfaction with campus climate than the other younger age groups.

8. The 25 to 34 age group is less satisfied with the campus support services than the other age groups.

9. Majority of responding 45 and over age group is more satisfied with the institutional effectiveness program than the other younger age groups.

10. In the area of safety/security program, the 19 to 24 age group is (surprisingly) more satisfied than the 25 to 34 age group.

11. African American/Black students are more satisfied with admission/financial aid programs than the Caucasian/White students.

12. Caucasian/White students are less satisfied with safety/security program than the African American/Black and Hispanic students.

Conclusions

Results of the analysis and the findings of the present study led to some important conclusions.

1. Respondent students were in a majority in their dissatisfaction with safety/security program of the institution.

2. Respondent students were in a majority in their satisfaction with academic services, and admission/financial aid programs.

3. Respondent students were in a majority in their satisfaction with advising/counseling, campus climate, campus support services, concern for individual,
institutional effectiveness, registration effectiveness, service excellence, and student centeredness.

4. Respondent students' satisfaction with retention programs are not influenced by gender, class load, or employment.

5. Respondent students' satisfaction with retention programs are influenced by age and ethnicity.

6. Respondent Caucasian/White students are less satisfied with safety/security programs than African American and Hispanic students of the institution.

7. Respondent African American students are more satisfied with the admission/financial aid program than the Caucasian/White students.

8. Respondent students 45 years and older were limited in numbers and they tended to be less critical of campus climate and institutional effectiveness programs of the institution than any other age groups.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are made:

1. Safety/security programs at the institution need to be reviewed to determine areas of improvement necessary to continue to motivate and encourage students to effectively perform their academic work without fear of physical hindrance or danger of any sort, thereby enhancing their satisfaction and morale necessary for retention.
2. Since the present research was limited to one campus, it might be worthwhile to conduct a comparative study with either a 4-year campus or a multi-campus of comparative mission to determine whether similarities or differences exist in the results.

3. Further studies with different methodologies in the area of students’ perceptions of and satisfaction with retention programs at such a 2-year community college are necessary to determine if there are possible variations in results because of difference in methodology.

4. Further studies should be conducted to determine relationships, if any, among and between students’ satisfaction and with retention.

5. Further studies need to be conducted to further investigate what motivates students in their college persistence.
APPENDIX A

LETTERS OF PERMISSION TO CONDUCT THE STUDY
81

1421 Wesley Dr.
Mesquite, TX 75149
October 19, 1996

Dr. Wright Lassiter, Jr.
President
El Centro College
Main & Lamar Streets
Dallas, Texas 75202

Ref: PERMISSION TO CONDUCT A SURVEY.

Dear Dr. Lassiter,

I am a doctoral student at the University of North Texas, Denton, Texas. I am conducting a doctoral research on “Community College Students’ Perceptions of Retention Programs in Dallas Metropolitan Area.” Sir, I have been directed to ask your permission to administer my survey instrument to your students.

This study will seek to identify areas of strength and weaknesses in existing retention programs. It will help to create retention programs where none is in existence. I will help administrators determine what procedural changes, if any, are needed for adequately formulating successful retention programs for colleges. Finally, the informations obtained from students, can be used in the evaluation of retention programs, and help retention officers to more effectively plan and implement retention programs.

The anonymity of individual respondents and the institution is guaranteed. The study will present relevant informations that will encourage further research in student retention efforts, and enhance the ‘modus operandi’ of retention officers as well as student service personnels in higher education.

The timeline for this research project is from Fall semester of 1996 to Spring semester of 1997, and the data to be collected is a list of all full-time students in the academic transfer program, who completed the Spring semester of 1995 and are enrolled int he Fall semester of 1996.

This topic has been accepted by my university committee, and you shall be receiving my department’s endorsement as soon as your approval is granted.

Thank you sir, for your cooperation and support, and should you have any questions, please call me at my home (214)288-0533 or at my office (214)565-6400.

Yours sincerely,

Ambrose U. Nzeakor, Ph. D. candidate

cc: Dr. John Eddy; Major Professor
    Dr. John Biar; Chair
    Dept. of Higher Education, UNT, Denton, TX
October 18, 1996

Mr. Ambrose U. Nzeakor
1421 Wesley Drive
Mesquite, Texas 75149

Dear Mr. Nzeakor:

This will confirm the agreement by the Chancellor's Cabinet that you can conduct research in support of your dissertation at El Centro College. I will provide a copy of your request letter to Mr. Mark Hunt, director of research, so that he can begin the process of collecting the data on full-time transfer students registered for the Spring Semester of 1995 and are enrolled in the fall semester of 1996.

I shall await notification as to when you would wish to commence your work here.

Very truly yours,

[Signature]

Wright L. Lassiter, Jr.
President

cc: Mark Hunt w/attachment
APPENDIX B

LETTER OF PERMISSION TO USE THE

STUDENT SATISFACTION INVENTORY (SSI)
February 10, 1997

Ambrose Nneakor
1421 Wesley Drive
Mesquite, TX 75149
Fax: 214-565-6431

Dear Ambrose:

As we have discussed, you have permission to use the Student Satisfaction Inventory™ as part of the research you are conducting. Your purchase of this instrument gives you the right to review and use the data from this inventory. The instrument should be referenced appropriately and noted as produced by USA Group Noel-Levitz.

Please let me know if you need additional information.

Sincerely,

Julie Hanschman
Program Consultant
APPENDIX C

COVER LETTER AND DATA COLLECTING INSTRUMENT
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.

1. Most students feel a sense of belonging here.
2. Faculty care about me as an individual.
3. The quality of instruction in the vocational/technical programs is excellent.
4. Security staff are helpful.
5. The personnel involved in registration are helpful.
6. My academic advisor is approachable.
7. Adequate financial aid is available for most students.
8. Classes are scheduled at times that are convenient for me.

9. Internships or practical experiences are provided in my degree/certificate program.
10. Child care facilities are available on campus.
11. Security staff respond quickly in emergencies.
12. My academic advisor helps me set goals to work toward.
13. Financial aid awards are announced to students in time to be helpful in college planning.
14. Library resources and services are adequate.
15. I am able to register for classes I need with few conflicts.
16. The college shows concern for students as individuals.
17. Personnel in the Veterans' Services program are helpful.
18. The quality of instruction I receive in most of my classes is excellent.
19. This campus provides effective support services for displaced homemakers.
20. Financial aid counselors are helpful.

[Unfilled response options]
1 - not important at all  
2 - not very important  
3 - somewhat unimportant  
4 - neutral  
5 - somewhat important  
6 - important  
7 - very important

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- Overall, the campus is well-maintained.
- Students are notified early in the term if they are doing poorly in a class.
- Library staff are helpful and approachable.
- There are adequate services to help me decide upon a career.
- Faculty provide timely feedback about student progress in a course.
- Computer labs are adequate and accessible.
- Admissions counselors accurately portray the campus in their recruiting practices.
- Counseling staff care about students as individuals.
- Nearly all of the faculty are knowledgeable in their fields.
- Faculties are interested in my academic problems.
- This school does whatever it can to help me reach my educational goals.
- There are convenient ways of paying my school bill.
- Tutoring services are readily available.
- I generally know what's happening on campus.
- Class change (drop/add) policies are reasonable.
- The equipment in the lab facilities is kept up to date.
- Review policies and procedures regarding registration and course selection are clear and well-publicized.
- Billing policies are reasonable.
- New student orientation services help students adjust to college.
- The amount of student parking space on campus is adequate.
- My academic advisor is knowledgeable about the transfer requirements of other schools.
- Academic support services adequately meet the needs of students.
- The assessment and course placement procedures are reasonable.
- Faculty are available after class and during office hours.
- Bookstore staff are helpful.
- I seldom get the "run-around" when seeking information on this campus.
- 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.
- Channels for expressing student complaints are readily available.
- On the whole, the campus is well-maintained.
- There is a good variety of courses provided on this campus.
- I am able to experience intellectual growth here.
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.

- not important at all
- somewhat unimportant
- neutral
- somewhat important
- important
- very important

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?

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.

96. So far, how has your college experience met your expectations?
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

97. Rate your overall satisfaction with your experience here thus far.
1. Not satisfied at all
2. Not very satisfied
3. Somewhat dissatisfied
4. Neutral
5. Somewhat satisfied
6. Satisfied
7. Very satisfied

98. All in all, if you had it to do over again, would you enroll here?
1. Definitely not
2. Probably not
3. Maybe not
4. I don’t know
5. Maybe yes
6. Probably yes
7. Definitely yes
Choose the one response that best describes you and darken the corresponding oval for each of the items below.

99. Gender:
   Ø Female
   [ ] Male

100. Age:
   [ ] 18 and under
   [ ] 19 to 24
   [ ] 25 to 34
   [ ] 35 to 44
   [ ] 45 and over

101. Ethnicity/Race:
   [ ] African-American
   [ ] American Indian or Alaskan Native
   [ ] Asian or Pacific Islander
   [ ] Caucasian/White
   [ ] Hispanic
   [ ] Other
   [ ] Prefer not to respond

102. Current Enrollment Status:
   [ ] Day
   [ ] Evening
   [ ] Weekend

103. Current Class Load:
   [ ] Full-time
   [ ] Part-time

104. Class Level:
   (Years in attendance at this college)
   [ ] 1 or less
   [ ] 2
   [ ] 3
   [ ] 4 or more

105. Current GPA:
   [ ] No credit earned
   [ ] 1.99 or below
   [ ] 2.0 - 2.49
   [ ] 2.5 - 2.99
   [ ] 3.0 - 3.49
   [ ] 3.5 or above

106. Educational Goal:
   [ ] Associate degree
   [ ] Vocational/technical program
   [ ] Transfer to another institution
   [ ] Certification (initial or renewal)
   [ ] Self-improvement/pleasure
   [ ] Job-related training
   [ ] Other

107. Employment:
   [ ] Full-time off campus
   [ ] Part-time off campus
   [ ] Full-time on campus
   [ ] Part-time on campus
   [ ] Not employed

108. Current Residence:
   [ ] Residence hall
   [ ] Own home
   [ ] Rent room or apartment off campus
   [ ] Parent's home
   [ ] Other

109. Residence Classification:
   [ ] In-state
   [ ] Out-of-state
   [ ] International (not U.S. citizen)

110. Disabilities:
   [ ] Physical disability or a diagnosed learning disability?
   [ ] Yes
   [ ] No

111. When I entered this institution, it was my:
   [ ] 1st choice
   [ ] 2nd choice
   [ ] 3rd choice or lower

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

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

Major:
Fill in major code from list provided by your institution.

Item requested by your institution:

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

Social Security Number: 299574
APPENDIX D

THE 11 COMPOSITE SCALES (SATISFACTION MEASURES)

DRAWN BY FACTOR ANALYSIS
<table>
<thead>
<tr>
<th>Scale/Item</th>
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<tbody>
<tr>
<td><strong>ACADEMIC ADVISING/COUNSELING</strong></td>
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<tr>
<td>6. My academic advisor is approachable.</td>
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<tr>
<td>12. My academic advisor helps me set goals to work toward.</td>
<td></td>
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<tr>
<td>25. My academic advisor is concerned about my success as an individual.</td>
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<tr>
<td>32. My academic advisor is knowledgeable about my program requirements.</td>
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<tr>
<td>40. My academic advisor is knowledgeable about the transfer requirements of other schools.</td>
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</tr>
<tr>
<td>48. Counseling staff care about students as individuals.</td>
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<tr>
<td>52. This school does whatever it can to help me reach my educational goals.</td>
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<thead>
<tr>
<th>Scale/Item</th>
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<tbody>
<tr>
<td><strong>ACADEMIC SERVICES</strong></td>
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<tr>
<td>14. Library resources and services are adequate.</td>
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<tr>
<td>21. There are a sufficient number of study areas on campus.</td>
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</tr>
<tr>
<td>26. Library staff are helpful and approachable.</td>
<td></td>
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<tr>
<td>34. Computer labs are adequate and accessible.</td>
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<tr>
<td>42. The equipment in the lab facilities is kept up to date.</td>
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<tr>
<td>50. Tutoring services are readily available.</td>
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<td>55. Academic support services adequately meet the needs of students.</td>
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<tr>
<th>Scale/Item</th>
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<tbody>
<tr>
<td><strong>STUDENT CENTEREDNESS</strong></td>
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<tr>
<td>1. Most students feel a sense of belonging here.</td>
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<tr>
<td>16. The college shows concern for students as individuals.</td>
<td></td>
</tr>
<tr>
<td>27. The campus staff are caring and helpful.</td>
<td></td>
</tr>
<tr>
<td>28. It is an enjoyable experience to be a student on this campus.</td>
<td></td>
</tr>
<tr>
<td>35. Students are made to feel welcome on this campus.</td>
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<tr>
<td>57. Administrators are approachable to students.</td>
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<th>Scale/Item</th>
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<tr>
<td><strong>ADMISSIONS AND FINANCIAL AID</strong></td>
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<tr>
<td>7. Adequate financial aid is available for most students.</td>
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<tr>
<td>13. Financial aid awards are announced to students in time to be helpful in college planning.</td>
<td></td>
</tr>
<tr>
<td>20. Financial aid counselors are helpful.</td>
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<tr>
<td>33. Admissions counselors accurately portray the campus in their recruiting practices.</td>
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<tr>
<td>41. Admissions staff are knowledgeable.</td>
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<tr>
<td>49. Admissions counselors respond to prospective students' unique needs and requests.</td>
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</table>
### Scale/Item

#### INSTRUCTIONAL EFFECTIVENESS

2. Faculty care about me as an individual.

18. The quality of instruction I receive in most of my classes is excellent.

23. Faculty are understanding of students' unique life circumstances.

29. Faculty are fair and unbiased in their treatment of individual students.

37. Faculty take into consideration student differences as they teach a course.

46. Faculty provide timely feedback about student progress in a course.

54. Faculty are interested in my academic problems.

58. Nearly all of the faculty are knowledgeable in their fields.

61. Faculty are usually available after class and during office hours.

#### REGISTRATION EFFECTIVENESS

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 change (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 are helpful.

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>
<thead>
<tr>
<th>Scale/Item</th>
<th>CAMPUS CLIMATE</th>
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<tbody>
<tr>
<td>1. Most students feel a sense of belonging here.</td>
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<tr>
<td>2. Faculty care about me as an individual.</td>
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<tr>
<td>16. The college shows concern for students as individuals.</td>
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<tr>
<td>22. People on this campus respect and are supportive of each other.</td>
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<tr>
<td>27. The campus staff are caring and helpful.</td>
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<tr>
<td>28. It is an enjoyable experience to be a student on this campus.</td>
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<tr>
<td>31. The campus is safe and secure for all students.</td>
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<tr>
<td>36. Students are made to feel welcome on this campus.</td>
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<tr>
<td>44. I generally know what's happening on campus.</td>
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<tr>
<td>45. This institution has a good reputation within the community.</td>
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<tr>
<th>Scale/Item</th>
<th>CAMPUS SUPPORT SERVICES</th>
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<tr>
<td>10. Child care facilities are available on campus.</td>
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<td>17. Personnel in the Veterans' Services program are helpful.</td>
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<tr>
<td>19. This campus provides effective support services for displaced homemakers.</td>
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<tr>
<td>30. The career services office provides students with the help they need to get a job.</td>
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<td>38. The student center is a comfortable place for students to spend their leisure time.</td>
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<tr>
<td>47. There are adequate services to help me decide upon a career.</td>
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<td>59. New student orientation services help students adjust to college.</td>
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<tr>
<th>Scale/Item</th>
<th>CONCERN FOR THE INDIVIDUAL</th>
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<td>2. Faculty care about me as an individual.</td>
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<td>25. My academic advisor is concerned about my success as an individual.</td>
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<tr>
<td>29. Faculty are fair and unbiased in their treatment of individual students.</td>
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<tr>
<td>48. Counseling staff care about students as individuals.</td>
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<td>Scale/Item</td>
<td>SAFETY AND SECURITY</td>
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<td>4.</td>
<td>Security staff are helpful.</td>
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<td>11.</td>
<td>Security staff respond quickly in emergencies.</td>
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<td>24.</td>
<td>Parking lots are well-lighted and secure.</td>
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<tr>
<td>31.</td>
<td>The campus is safe and secure for all students.</td>
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<tr>
<td>39.</td>
<td>The amount of student parking space on campus is adequate.</td>
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<th>SERVICE EXCELLENCE</th>
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<td>5.</td>
<td>The personnel involved in registration are helpful.</td>
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<td>44.</td>
<td>I generally know what's happening on campus.</td>
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<tr>
<td>57.</td>
<td>Administrators are approachable to students.</td>
</tr>
<tr>
<td>62.</td>
<td>Bookstore staff are helpful.</td>
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<tr>
<td>63.</td>
<td>I seldom get the &quot;run-around&quot; when seeking information on this campus.</td>
</tr>
<tr>
<td>67.</td>
<td>Channels for expressing student complaints are readily available.</td>
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REFERENCES


Peterson, W. D., Eddy, J., & Pitts, G. D. (1980). Historical perspectives of college student personnel work. In J. Eddy, J. D. Dameron, & D. T. Borland (Eds.), College student personnel development, administration, and counseling (pp. 43-44). Lanham, MD: University Press of America.


Wingham, P. (1994). *The relative importance of selected factors to attrition at public community colleges.* Paper presented at the 23rd Annual Conference of the Southern Association for Community Colleges. Savannah, GA.