

A QUANTITATIVE ANALYSIS OF THE RELATIONSHIP OF A NON-TRADITIONAL
NEW STUDENT ORIENTATION IN AN URBAN COMMUNITY COLLEGE WITH
STUDENT RETENTION AND GRADE POINT AVERAGE AMONG ETHNIC GROUPS

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This quantitative study examined relationships of attending a new student orientation program related to student retention and academic success. A research group of 464 students of Tarrant County College Northwest, a community college campus in Fort Worth, Texas, who voluntarily attended a 2-hour pre-semester new student orientation program was compared to a group of 464 students on the same campus who did not attend the program. Comparisons were made with regard to retention and GPA. Ethnic ratios of both groups are 4% Black, 26% Hispanic, 66% White, and 4% other ethnicities. Chi square data analysis was utilized to determine if statistically significant differences relating to student retention existed between the groups. The independent *t*-test was used to compare means of calculated GPAs between groups. A one-way ANOVA was used to compare the means of GPAs for ethnic sub-groups. The total group and the Black sub-group showed statistically significant higher levels of second-semester retention (total group $p = .018$; Black sub-group $p = .008$) and higher calculated GPAs (total group $p = .016$; Black sub-group $p = .019$). No statistically significant results were found among Hispanic students.

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There is no such thing as a self-made man (or woman) - Author Unknown

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CHAPTER 1

INTRODUCTION

Background of the Study

The Texas Higher Education Coordinating Board (THECB), along with the report *Closing the Gaps by 2015*, calls for a more than 50% increase from 116,249 in the year 2000 to a target goal of 210,000 by the year 2015 in the number of degrees, certificates, and other identifiable student successes among undergraduate students. To implement this goal, THECB has developed an accountability system designed to assess: number of degrees awarded, graduation rates, retention rates, and transfer graduation rates (THECB, 2008). These measures are reflected in a number of different ways in order to help demonstrate success at a statewide and institutional level.

In Texas, a large gap exists among racial and ethnic groups in both enrollment and graduation rates from colleges and universities. With present population trends, groups with the lowest enrollment and graduation rates will constitute a larger proportion of the Texas population by 2015 (THECB, 2008, p.4). The Closing the Gaps Higher Education Plan includes the approach of “carrying out the state’s Uniform Recruitment and Retention Strategy and other efforts aimed at making college and university enrollment and graduation reflect the population of Texas” (p. 2). The plan calls for an increase in the number of

students completing bachelor's degrees from 57,000 to 104,000 by 2015 which will place Texas above the national average. Further, the plan specifies that in order to accomplish this goal, Black and Hispanic populations will need to receive bachelor's degrees in proportion to their representation in the state's population. Additionally, the number of associate's degrees earned in Texas is identified as far behind the national average (THECB, 2008, p.11). Specific completion rate information related to Black students identifies a baseline of 11,217 in the year 2000 with a target of 24,300 Black students earning certificates, associate's and bachelor's degrees by the year 2015. Specific targets related to increasing the number of Hispanic students earning certificates, associates, and bachelor's degrees begin at a baseline of 23,369 in the year 2000 and target a goal of 67,000 by the year 2015 (THECB, 2008). Further, Arbona and Nora (2007) reported that Latino male and Latina female students who enroll in higher education are disproportionately over-enrolling in community colleges while remaining underrepresented in selective 4-year institutions.

To meet the THECB performance measures, Texas Community Colleges must identify, develop, and implement successful programs which will increase student retention and academic success among students in all ethnic groups resulting in increased success of Black and Hispanic students.

Early research conducted by Alexander Astin (1972) reported that of 217 two-year institutions, one-third of the entering freshmen did not return for their second year. Further, research conducted by Bers (1986) reported that a 50%

persistence rate from one term to the next in community colleges was considered high. To this end, a large number of researchers have identified and recommend a variety of positive retention strategies which include new student orientation programs (Ashburn, 2007; Braxton & McClendon, 2001; Hollins, 2009; Lotkowski, Robbins, & Noeth, 2004; Perrine & Spain, 2008; Sander, 2008; Swail, Redd, & Perna, 2003).

The 2007 Community College Survey of Student Engagement, commonly known as and will hereafter be referred to as CCSSE, presents information related to new student orientation programs across the United States. Research results from the survey identify the positive impacts of orientation programs which provide foundational skills for students that may help increase persistence and graduation rates among community college students. Results from a similar national study, the Survey of Entering Student Engagement (2007), referred to as SENSE, indicate that large numbers of students are unaware of their college's core services in the opening weeks of their first semester. Further, the survey revealed that only one in five reported that they felt welcome at their institutions the first time they came to campus. The SENSE report includes recommendations to reach out to new students earlier and more aggressively through programs such as orientation.

This study examines a new student orientation program in an urban community college. Relationships of student participation related to retention and

academic success are examined and reported. Further, retention and academic success are examined and reported within different ethnic groups.

The program to be studied, entitled New Student Orientation, was developed and provided at Tarrant County College (TCC) Northwest Campus in Fort Worth, Texas in 2005 and has been offered to students in the fall and spring semesters of subsequent years. The TCC orientation program was developed based on the identified needs of reaching out to students at the beginning of their college careers, providing a welcoming environment, and raising the level of awareness of core campus services designed to help students succeed. Delivered as a two-hour program and offered multiple times prior to student registration periods, the TCC orientation sessions provide new students with information related to testing, registration, advisement, and student service programs (TCC New Student Orientation Executive Summary, 2005).

This research study examines the TCC New Student Orientation program and relationships between student retention and academic success. Findings in this study provide foundational research information that can be used by similar institutions.

Overview of Conceptual Framework for the Development of the Orientation Program

Research conducted by Tinto, Astin, and Kuh provided a foundation for the development of the TCC New Student Orientation program.

The Tinto model of student persistence explores the impact of social and academic integration to college environments related to student retention. Tinto's theory suggests that the higher the degree of integration into a college environment the greater commitment level a student would have to the college goal and the institution. Further the theory implies that as student commitment levels increase persistence at institutions of higher education increase (Tinto, 1975). In subsequent research, Tinto also concluded that the stress of adjusting to college has a strong and significant impact on students with a low commitment level and may be directly related to their decisions to drop out (Tinto, 1988). The new student orientation program examined in this research study was developed to support social and academic integration to the campus environment. One of the identified goals of the program is as follows: "eliminating the stress of adjusting to the community college environment by providing fundamental information to students entering the institution" (TCC New Student Orientation Executive Summary, 2005). To meet this goal, the TCC New Student Orientation program serves as a vehicle to provide information to new students related to campus regulations, testing, advising, registration, and student service programs (TCC New Student Orientation, 2006). Through the program, detailed information is provided to students to enable them to access and utilize campus programs and support services.

Alexander Astin (1985) developed the theory of involvement which asserts that the more students are involved on campus, both academically and

socially, the more likely they are to succeed in college. Through his research findings, he identified student involvement as a cornerstone of retention and student success. Subsequent research conducted by Astin provided foundational information concluding that the freshman year is a critical time for student retention (Astin, 1993; 1997). Provided at the onset of the freshman year, the program examined in this study provides entering freshman with tools and information developed to enable them to increase social and academic involvement on campus. The TCC New Student Orientation program identified a program goal as “to provide new-to-college students with information and opportunities to increase campus involvement” (TCC New Student Orientation Executive Summary, 2005).

Research conducted by George Kuh (2002), along with Jillian Kinzie (2005), examined the relationship between organizational culture and student persistence. Through a two-year study, Kuh and Kinzie (2005) identified six conditions common among institutions with high levels of student engagement and retention. Two findings are as follows: “(1) Institutions with high levels of student engagement create pathways for success and teach students how to take advantage of opportunities available to them. (2) Institutions with high levels of student engagement share responsibilities for educational quality and student success.” This framework influenced the development of the TCC New Student Orientation program. The findings presented in Kuh’s research highlighted the need to provide students with information on how to access and utilize campus

services (J. Rode, personal communication, 2006). This study examines an orientation program that was developed to create pathways for success and provide students with tools and information to enable them to access services supporting retention and academic success.

Research studies conducted by Tinto, Astin, and Kuh provided a foundation for the development of the TCC New Student Orientation program offered to students at the onset of the freshmen year. The program studied through this research was developed to familiarize new students with the college's services and encourage both campus involvement and student engagement. Supported by theory and research, one of the foundational premises for the development of the TCC New Student Orientation program was stated as: "Students must be aware of and know how to access student support services at the beginning of their freshman year" (TCC New Student Orientation Executive Summary, 2005).

Statement of the Problem

Significant research exists related to New Student Orientation programs in four-year colleges and universities (Davig & Spain, 2004; Hollins, 2009; Perrine & Spain, 2008; Rhodes & Carifio, 1999; Schnell & Doetkott, 2002). Further, review of related literature identifies a need for research studies specific to community colleges. Smart and Hamm (1993) concluded that there was "a virtual void of research on the effectiveness of two-year institutions" (p. 40). Subsequent research related to community colleges presents recommendations to evaluate

programs developed to address student retention and student success at the community college level (Cuseo, 1997; McClenney & Waiwaiole, 2005; Perrine & Spain, 2008; Rhodes & Carifio, 1999). Still, not enough is known about the impact of new student orientation programs in general in community college settings as related to student retention and academic success. This study, which focuses on the TCC New Student Orientation program, examines a new student orientation program as related to student retention and academic success in a community college. The research study also examines a specific orientation program format, delivered as a two-hour session to meet the unique needs of community college students.

A review of the literature indicates the majority of research related to student orientation programs is focused on traditional delivery formats (Davig & Spain, 2004; Fidler & Fidler, 1991; Friedman & March, 2009; Perrine & Spain, 2008). Traditional orientation programs are identified as one-day to one-week sessions offered a single time for students (Cuseo, 1997). Also, research is reported on initiatives such as freshman seminars or first-year experience programs which are offered as semester-long courses (Gardner, 1991; Fidler & Fidler, 1991, Rhodes & Carifio, 1999; Schnell & Doekott, 2002). However, there is a lack of research related to non-traditional programming, such as two-hour sessions, offered prior to registration.

The TCC New Student Orientation program examined in this study is not a traditional orientation program, but rather a voluntary two-hour session offered

multiple times prior to student registration. The program was developed to provide foundational information to students in the areas of testing, advisement, registration, and core student service programs. The two- hour format and scheduling options were developed to meet the needs of community college students; “providing opportunities for flexible scheduling with day, evening and weekend orientation sessions designed to meet the needs of community college students” (J. Rode, personal communication, 2006). This study examines a non-traditional orientation format delivered in an urban community college as it relates to student retention and academic success and specifically to retention and academic success of Black and Hispanic students.

Further, this study provides a platform to examine specialized student populations related to ethnicity. Goals and strategies set forth in the THECB *Closing the Gaps* initiative call for increased retention of students, especially Black and Hispanic students. Additionally, the Uniform Recruitment and Retention Strategy approved by THECB, sets forth guidelines for attracting, enrolling, and retaining students in Texas higher education institutions that reflect the population of the state. This study examines correlations of an orientation program in an urban community college setting with a diverse student population of 8,091 in fall 2006 with 61.5% female and 38.5% male. Ethnic ratios reported in fall 2006 were 65.2 % White, 7.9% Black, 21.7% Hispanic, 3.7% Asian, .6 % American Indian, and .9% other (TCC Statistical Handbook, 2006).

Moreover, the *Closing the Gaps* initiative begs the question “How soon should colleges and universities implement retention efforts to accomplish goals set forth in the plan?” Sander (2008) reported that findings from the Survey of Entering Student Engagement (SENSE) reveal reasons student leave college and provides recommendations for increasing retention. Sander (2008) reports that 2007 SENSE information indicates that a significant number of students are unaware of their college’s core services in the opening weeks of the first semester. Further, it was reported that only one in five stated they felt welcome at their institutions the first time they came on campus. Additionally, the survey noted that community colleges typically lose about half of their students prior to the students’ second year. Ashburn (2007) provided information stating that some community college students fall through the cracks during their first month, having a negative impact on student success and retention. Suggestions for increasing retention have included recommendations to reach out to new students earlier and more aggressively through programs such as orientation (Ashburn, 2007; Sander, 2008; Hollins, 2009). This research study examines a new student orientation program in a community college setting offered at the onset of the freshmen year prior to registration.

Little information about new student orientation programs offered in a non-traditional format in community college settings is available. Further, limited research information is available in this area related to retention and grade point average. These data are needed to support the initiatives *Closing the Gaps* to

increase retention and graduation rates of Black and Hispanic students in the state of Texas.

Purpose of the Study

This study examines student participation in a non-traditional new student orientation program and the relationship to student retention and academic success exhibited by grade point average. Further the study examines specialized populations of students based on ethnicity. The findings obtained in this study can be used to recommend strategies for developing and implementing programs to address student retention and academic success at the beginning of the freshman year.

Research Questions

Research questions are:

- Is there a statistically significant difference in retention rates between students who attended a non-traditional new student orientation program and students who did not attend the orientation program?
- Is there a statistically significant difference in grade point average between students who attended a non-traditional new student orientation program and students who did not attend the orientation program?
- Is there a statistically significant difference in retention rates based on ethnicity between students who attended a non-traditional new student

orientation program and students who did not attend the orientation program?

- Is there a statistically significant difference in grade point average based on ethnicity between students who attended a non-traditional new student orientation program and students who did not attend the orientation program?

Delimitations, Limitations, and Design Controls

Delimitations

This study was not designed to account for stopout students who may plan to complete educational goals with several semesters of absence between enrollment dates. Although these students may exhibit success through re-enrollment at a later date, the statistical analysis of student retention rates in the study do not account for this.

Limitations

It is noted that the new student orientation program examined in this study is voluntary, rather than required. Data from statistical calculations yielded information showing that students attending the TCC New Student Orientation program in Fall 2006 and subsequently enrolling in classes in Fall 2006 represented a group of 464 students; approximately 33% of the total of first-time-in-college students at the institution during the same time period (TCCD Retention Report, 2006).

Students attending the TCC New Student Orientation program were not pre-screened to identify the possible existence of personal characteristics shown to be linked to student persistence and success. As a result, these personal characteristics are not accounted for in the pair-wise matching or data analysis.

At the time this research study was developed, attempts were made to identify similar programs in Texas Community Colleges. Through responses to e-mail questionnaires sent to over 70 community college campuses in Texas, it was determined that there was not a comparable model for research comparison in Texas. Because of this, multiple institutions could not be studied.

Also, this research study is a non-experimental design, and therefore restricted to correlations, absent of cause-effect conclusions.

Design Controls

Due to the fact that attendance in the TCC New Student Orientation program is voluntary, design controls are utilized to attempt to control for extraneous variables. Pair-wise matching is used in which the comparison group is matched with the research group research based on the following characteristics: age, ethnicity, gender, and enrollment status.

Definitions of Terms

Closing the Gaps 2015: A plan adopted by the Texas Higher Education Coordinating Board directed at closing educational gaps in Texas as well as between Texas and other states. It has four goals: to close the gaps in student participation, student success, excellence and research (THECB, 2008).

Freshman seminar/first-year experience program: A semester long seminar designed to provide students with foundational student success skills. Examples of these skills include: college orientation, stress management, time management, academic exploration, and communication skills. Freshman Seminars/First-Year Experience programs may or may not provide college credit and are often required for all entering freshmen (Fidler & Fidler, 1991; Gardner, 1991).

New student orientation: A program offered to new-to-college students which provides information on the topics of registration, academics, and campus services. For the purposes of this study, the TCC New Student Orientation program is structured as a two-hour, voluntary program, in which information presented is designed to provide students with information related to registration, academics, and campus services which are designed to help students succeed in college.

Non-traditional new student orientation program: An orientation program developed and offered in a format which is not considered traditional. For the purpose of this study, a non-traditional student orientation program format is a two-hour, voluntary program, offered multiple times prior to registration.

Retention: The act of a student enrolling in the next immediate semester in one or more credit course(s) after completion of their first semester at the same institution.

Retention rates: The number of students returning for the next immediate semester at the same institution. For the purposes of this study, retention rates will be measured in intervals of time for students entering in Fall 2006 and enrolling in the next immediate semesters identified as second semester (Spring 2007), third semester (Fall 2007), fourth semester (Spring 2008).

Stop-out student: A student who may plan to complete educational goals with several semesters of absence between enrollment dates.

Student development services: Services designed by a school entity to support the instructional program and to help students attain their educational and career goals. The services may include: academic advising, registration, career services, financial aid, health services, library services, tutoring services, student activities, and specialized retention programs.

Student success: Activities and educational factors which, as a whole, lead to graduation. These include: attainment of a grade point average above 2.0 allowing students to meet the minimum institutional requirements to re-enroll and continue with coursework.

Traditional new student orientation program: Traditional orientation programs are identified as one-day to one-week sessions offered a single time for students (Cuseo, 1997).

Summary

This quantitative research study examines relationships of attending a voluntary, two-hour, new student orientation program in an urban community

college setting related to student retention and academic success. Findings of this study provide student service professionals with knowledge and statistical data to assist them in designing, developing, and implementing programs to address student retention and academic success at the beginning of the freshman year. Further, research findings from this study provide foundational information specific to community college settings and a non-traditional orientation format designed to meet the unique needs of community college students.

CHAPTER 2

LITERATURE REVIEW

This chapter provides a review of literature encompassing theoretical frameworks and research related to the cornerstones used for the development of a non-traditional new student orientation program. In addition to theoretical foundation, the chapter provides historical information related to new student orientation programs. Also, a synthesis of research conducted in specific areas related to this study is presented. Further, a comprehensive review of literature supports the need to conduct research at the community college level and provide research information related to attending an orientation program offered in a non-traditional format and student retention and academic success.

Historical Perspectives of New Student Orientation Programs

According to the National Orientation Directors Association (NODA), the first student orientation program was held at Boston University in 1888 (NODA, 2008). Over time, multiple orientation programs have emerged and have been offered in a multitude of formats. Over the past century, the number of orientation programs offered in higher education has waxed and waned. Additionally, the types of programs offered have changed over time. In the years following World War II, Bookman (1948) reported that survey findings indicated that 43% of

institutions surveyed reported offering a required orientation course. By the 1960s, the percentage of institutions offering orientation courses dropped drastically to near non-existence (Drake, 1966). In the 1970s, the focus on first-year experience courses emerged with offerings of programs such as the University 101 course at the University of South Carolina (Upcraft and Gardner, 1989). First-year experience seminar courses typically differ from new student orientation programs in length and content. New student orientation programs are typically designed to introduce students to campus services and policies while first-year experience seminars, typically offered as a semester-long course, provide foundational information to influence students' academic success and personal growth (Barefoot, 2000; Gardner, 1991; Mullendore & Banahan, 2005). The 1980s saw an increase in the number of first-year seminar courses offered. National data collected in 1988 indicated that the number of higher education institutions offering first-year seminar programs was reported as 68% (Fidler & Fidler, 1991).

According to Mullendore and Banahan (2005) new student orientation programs experienced transitions and trends developed through 1990s and into the new Millennium. Mullendore and Banahan attribute the transitions of orientation programs as “due in large part to the research and training activities sponsored by the National Orientation Directors Association” (p 392). Further, recent trends in orientation programs are noted in the following areas: 1. Orientation programs have become more academic in nature and collaboration

between faculty and student affairs personnel has increased (Strumpf & Wawrynski, 2000); 2. Technological advances have caused orientation leaders to examine delivery methods and find a balance which still provides human connections between students and their institutions (Mullendore & Banahan, 2005; Newman & Miller, 2002); 3. College populations have changed and the number of non-traditional students attending colleges and orientation sessions has increased, causing orientation leaders to provide “flexible, innovative, and efficient orientation programs” (Mullendore & Banahan, 2005, p 392); 4. Family attendance and involvement in new student orientation has increased (Hatch, 2000); and 5. Increasing diversity of students has provided opportunities for orientation professionals to examine program goals and objectives to ensure student needs are being met (Mullendore & Banahan, 2005).

Over the past decade, the number of first-year experience courses has increased and so has research conducted in this area. National data collected in 2005 indicated that the number of higher education institutions offering first-year seminar programs was reported as 85% (Upcraft, Gardner, & Barefoot, 2005). Research conducted by Hensheid (2004) noted that the growing number of positive effects associated with first-year seminars had shifted the examination from “should they be offered?” to “what type should be offered?” (p 1). Also, research conducted by Cavote and Kopera-Frye (2004) and Henscheid (2004) indicates that first-year seminars serve in helping students adjust to the intellectual and social demands of higher education.

Mullendore and Banahan (2005) stated that the initial components of new student orientation are frequently offered during the summer or immediately prior to the term. Perigo and Upcraft (1989) recommended four goals to be considered as foundational components of new student orientation programs as follows: 1. Orientation programs should help new students achieve academically; 2. Orientation programs should assist students in their adjustment to and involvement in college; 3. Orientation programs should be designed to assist parents and family members in understanding the complexity and services of the college environment; and 4. Orientation programs should provide college personnel with an opportunity to learn about incoming students and connect with them through formal and informal means. Further, Miller (1999) reinforced pathways for implementing these goals in his description of effective orientation programs as follows:

Orientation programs must assist new students in understanding their responsibilities within the educational setting...Provide new students with information about academic policies, procedures, requirements, and programs sufficient to make well-reasoned and well informed choices...Inform new students about the availability of services and programs... assist new students in becoming familiar with the campus and local environment...Provide intentional opportunities for new students to interact with faculty, staff, and continuing students. (Miller, 1999, pp 137-138)

Over time, orientation programs have evolved in part to meet the needs of the changing landscape of higher education. Friedman and Marsh (2009) noted that as the needs of colleges and students change so do the types of first-year programs offered. In examining current-day programs and practices in community colleges, Mullendore and Banahan (2005) provided information related to student needs and specifically noted that “new student orientation programs in two-year institutions tend to reflect the nature of the students they serve and, while they may vary from college to college, most are half-day programs offered at various times of day” (p 402). Cook (2000) identified central components of effective two-year orientation programs as: pre-enrollment assessment, developmental academic advising well beyond class scheduling, and class registration.

Current-day recommendations related to orientation programs provide support for program evaluation. Mullendore and Banahan (2005) recommended that student orientation providers conduct systematic qualitative and quantitative evaluations of programs to determine whether the stated mission and goals are being met.

Conceptual Framework and Models Related to New Student Orientation Programs

Student development theories have historically provided a foundation and basis for implementing retention programs, such as new student orientation programs. In 1969, Arthur Chickering presented a model of college student

development and outlined sources of impact in the college environment. Seven vectors were identified, all of which are related to identity formation: (1) developing competence, (2) managing emotions, (3) moving through autonomy toward interdependence, (4) developing mature interpersonal relationships, (5) establishing identity, (6) developing purpose, and (7) developing integrity.

The Tinto model of student persistence further explores the impact of social and academic integration as it relates to student persistence. Tinto's theory suggests that the higher the degree of integration into a college environment the greater commitment level a student would have to the college goal and the institution. Further the theory implies that as student commitment levels increase persistence at institutions of higher education increase (Tinto, 1975). In subsequent research, Tinto also concluded that the stress of adjusting to college has a strong and significant impact on students with a low commitment level and may be directly related to their decisions to drop out (Tinto, 1988).

Alexander Astin (1985) presents information on the Theory of Involvement which asserts that the more students are involved on campus, both academically and socially, the more likely they are to succeed in college. Through his research findings, he identified student involvement as a cornerstone of retention and student success. Subsequent research conducted by Astin, provided foundational information concluding that the freshman year is a critical time for student retention (Astin, 1993, 1997).

Research conducted by George Kuh (2002, 2005) examined the relationship between organizational culture and student persistence. Through this two-year study, Kuh along with Kinzie (2005) identified six conditions common among institutions with high levels of student engagement and persistence as follows: (1) clearly stated missions and informed decisions that affect the day-to-day operations of the institutions; (2) strong emphasis placed on undergraduate learning, utilizing active and collaborative learning strategies; (3) physical environments that promote educational enrichment; (4) institutional structures that create pathways for success and teach students how to take advantage of opportunities available to them; (5) assessment of student performance and satisfaction is related to decision-making; and (6) shared responsibility for educational quality and student success.

Research Related to New Student Orientation

A review of the literature reveals a body of research related to freshman seminars, orientations, and first-year experience programs offered in a semester-long format at both four-year universities and community colleges. Though some literature exists, there is a limited amount of research information related to pre-semester new student orientation programs at both the four-year universities and community colleges.

Orientation Research Related to Four-Year Universities

Research related to semester-long orientation programs provides support related to positive outcomes of student success. A four-year longitudinal study

conducted by Schnell and Doetkott (2002) concluded that students enrolled in a semester-long freshman seminar program at a university had a significantly greater retention rate over a period of four-years. Qualitative research conducted by Davig and Spain (2004) reported research findings related to a semester-long freshman orientation course and effects on students' perceptions of adjustments to college life along with implications related to student persistence in a four-year university. The research findings identified five orientation course topic areas which were positively related to student persistence. These five topic areas were study skills, advising information, curriculum planning, group activities outside of class with other students and faculty, and a campus tour (Davig & Spain, 2004).

Keup and Barefoot (2005) explored many facets of First Year Seminars through survey information obtained through the Cooperative Institutional Research Program's Freshman Survey and the Your First Year College Survey and concluded that first-year seminars serve as an effective means of positively facilitating the transition from high school to college. Recommendations for further research include the need to examine voluntary programs and varied program formats.

Perrine and Spain (2008) conducted a two-year longitudinal study focused on the impacts of an optional, six-day, pre-semester freshman orientation program on academic credits earned, GPA, and college retention in a four-year university. Perrine and Spain reported that attendance at the optional six-day program did not have a significant impact on credits earned, GPA, and retention

when compared to other predictor variables. Through the study, the researchers also presented information related to the benefits of the optional six-day program which included academic and social adjustment along with creating a positive impression of the university. Perrine and Spain recommended that college administrators consider short programs, offered multiple times which would serve to help introduce new students to the college environment.

Moreno (1997) presented the viewpoint that freshman seminars/first-year experience courses demonstrate a low priority for academic content and provide support for underprepared students. Moreno recommended four-year colleges enforce high academic admissions standards and limit the number of students admitted, thus decreasing the need for freshman seminar and first-year experience courses. Though recommendations provided by Moreno do not support freshman seminar programs at four-year universities, the ideas presented substantiate the need for open door institutions serving underprepared students to provide such programs for freshmen.

Orientation Research Related to Community Colleges

Roueche and Roueche (1998) state that students in community colleges need orientation more than any comparison group of learners in American Higher Education. Although research related to semester-long orientation programs has been conducted in community college settings, a gap exists in research related to pre-semester orientation programs in community colleges.

Research conducted by Rhodes and Carifio (1999) presented qualitative information related to community college students' opinions regarding the value of a semester-long freshman year experience program. Survey information obtained from program participants, the majority being over age 25, indicated they felt the program content was useful but felt the semester-long format seemed too extensive. O'Gara, Mechur-Karp, and Hughes (2009) examined semester-long student success courses in two urban community colleges to explore how institutional support services contribute to the support of degree completion. Findings indicated that the student success courses, providing information related to student support services produced positive results in helping students adjust to the community college and persist towards the completion of a degree. Research recommendations presented in this study support the need to further examine community college programs providing freshmen with information related to student support services and correlations of persistence and retention (O'Gara, Mechur-Karp & Hughes, 2009).

A case study conducted by Cutright and Swing (2005) reported that the Community College of Denver exceeds commonly held expectations for community college outcomes related to student success. Through this case study, information related to successful and innovative practices designed to enhance student success is presented including "Red Carpet Days" which are held at least fifteen times a year. Through the Red Carpet Days, "prospective students have the opportunity to tour the campus, participate in orientation,

receive advice on financial aid, take the Accuplacer assessment and receive their scores, meet with an advisor to develop an educational plan, and register for courses - all in one day (Cutright & Swing, 2005, p. 40).

A study conducted by Hollins (2009) concluded that community college students who participated in a pre-semester program providing information related to student orientation, advising, and registration had a higher retention rate than students who did not participate. The study further reported that students who participated in a pre-semester orientation program who also enrolled in a semester-long student success course exhibited higher retention rates than other groups. The researcher recommended that community colleges develop and provide pre-semester orientation programs which offer opportunities for students to become familiar with institutions, campus cultures, and services. Further recommendations for research were presented related to examining pre-semester and semester-long program formats and content in community college settings (Hollins, 2009).

Minority Students and New Student Orientation

New student orientation programs which introduce students to the collegiate environment are identified as a successful retention strategy to retain students of color in postsecondary education (Opp, 2002; Parker, 1998). Derby (2007) reports that although orientation programs are related to positive outcomes in student retention, a lack of research exists at the community college level; especially regarding minority retention and orientation course participation.

In a 1998 study, Weissman, Bulakowaski, and Jumisco noted that “many experiences are common among first-time freshmen, such as confusion over the enrollment process, concerns about finances, and the need to balance their lives in and away from college” (p. 19). They further explained that “there can be striking differences in the transition process for White, Black, and Hispanic students” (p.19) which have implications when designing and developing strategies to facilitate students’ transition to college and examining techniques to improve retention. Further, the researchers noted in their findings that:

Orientation plays a crucial role in helping students learn about their new environment. Orientation programs should provide both academic orientation as well as opportunities to help students feel validated.

Students need to understand what it takes to be successful in college and the adjustments they may need to make to stay in college. (Weissman, Bulakowaski, & Jumisco, 1998, p. 29)

Also, researchers recommend that colleges consider varying the orientation programs for students of different backgrounds and experiences (Jacobs & Bowman, 2003; Weissman, Bulakowaski, & Jumisco, 1998).

Braxton, Hirschy, and McClendon (2004) recommend that orientation programs for incoming students should provide multiple opportunities for quality interpersonal interactions with peers and further recommends that such programs be mandatory. Further, the researchers recommend three key steps that colleges and universities must take to increase persistence and retention

rates among racial and ethnic minorities as follows: (1) achieve and maintain a critical mass of students enrolled and retained; (2) make space for diverse students through honoring history and cultures of different racial and ethnic groups; and (3) affirm students' identities and enhance feelings of incorporation into the college environment through programs such as new student orientation which encourage campus involvement (Braxton, Hirschy, & McClendon, 2004).

Ornelas and Solorzano (2004) note that, due to the fact 2-year colleges serve such a diverse set of constituents and have a variety of competing functions; it is often difficult to apply traditional theories in the community college context. The researchers further note that competing missions include retention, awarding of associates degrees, transfer support, providing certifications for technical and vocational coursework, serving community needs, and providing lifelong learning opportunities (Ornelas & Solorzano, 2004). Recommendations provided by the researchers to promote persistence and retention of Latinas/os include: summer bridge programs, first-year seminars, mentoring programs, and expanded orientation programs designed to promote campus engagement and academic achievement.

In a 2005 study, Derby and Watson found an associative relationship between Hispanic student participation in an orientation course and degree completion in a community college environment. In a subsequent study in 2006, Derby and Watson did not find a relationship between attending an orientation course and African American degree completion, but rather found associative

relationships between African American student participation in a new student orientation course and increased retention and persistence at the community college level. Derby (2007) further examined the interactions of degree completion and attendance in an orientation course in a community college over a 4-year period and reported that attendance of the course was a significant predictor of degree completion among White students but found no significant predictors of degree completion for Hispanic and African American Students. Further research in this area was recommended by the researcher due to mixed findings presented between multiple studies (Derby, 2007).

As a result of conducting research designed to examine retention and baccalaureate attainment of Latina/o students, Oseguera, Locks, and Vega (2009) found that community colleges are often a critical component of student success and can influence students' decisions to complete a four-year degree. Through research and program evaluation, a number of elements were identified as critical for Hispanic student success which included: (1) implementing pre-college programs to identify and understand students' needs as early as possible, (2) mandating and sustaining orientation programs throughout the academic career for students and families, (3) providing both academic and nonacademic support, and (4) collecting data and conducting program evaluations for continuous improvement (Oseguera, Locks, & Vega, 2009).

Ward-Roof and Cawthon (2004) and Pope (2004) also identify community colleges as having a direct and initial relationship which can impact a student's

decision to transfer to a four-year university. These researchers recommend that community college staff develop and provide students with orientation information and resources available to assist them with their transfer to a four-year university.

New Student Orientation and Freshman Seminar Formats

Of the 65 articles reviewed, 17% were related to the types of orientation programs offered in four-year universities and community colleges. Tang (1981) studied several orientation formats; sessions offered during the summer preceding the term, offered in one and two day formats, at the beginning of the term, and seminars throughout the term; and deduced that in order to design effective orientation programs, staff members should consider their college's mission statement, campus culture, and student population. These research recommendations were further supported by Cohen and Brawner in 2003.

Cuseo (1997), Friedman and Marsh (2009), Hollins (2009), and Schupp (2009) identify the need to develop research and provide recommendations related to the length, format, and content of orientation programs. Review of the literature reveals a primary focuses on semester-long orientation programs and freshman seminar courses with a gap existing in the area of pre-semester orientation programs.

Through results obtained through a 1988 national survey with over 1,000 respondents, Fidler and Fidler (1991) examined various aspects of freshman seminar programs. An analysis of freshman seminar course content provided by

respondents identified similarities in that “courses were designed to help students improve academic performance and take full advantage of college opportunities” (p. 39). Also, through their research, Fidler and Fidler reported that over 80% of institutions responding to the survey, offered freshman seminar programs for credit. Further, over 40% of institutions offering orientation programs, whether credit or non-credit, required the course of all freshman students. Fidler and Fidler also reported findings for two-year colleges differ from four-year universities as follows; two year institutions are more likely to: (a) use student affairs professionals to coordinate freshman seminars, (b) offer programs less than one semester, and (c) provide class sizes of fewer than 50 students. Recommendations were provided by the researchers encouraging the evaluation of freshman seminar program success based on sophomore return rates and graduation rates.

Cuseo (1997) critically analyzed information related to freshman seminar course value, content, and delivery in community colleges. Through his research the following questions are examined: “Should freshman seminar courses be offered for academic credit? What should the seminar’s content and length be?” (pp. 5-16). Cuseo recommended that freshman seminar courses be offered for college credit. He also acknowledged difficulties associated with credit seminars, such as transfer articulation agreements with four-year universities, credits required for graduation, and grading standards. Cuseo further recommended that information in the following areas be included in freshman seminar courses: (a)

the college experience, meaning and value; (b) academic skill development, learning how to learn; (c) academic and career planning, college majors and careers; (d) life management skills; holistic development. In examining options related to course length, the researcher examined a variety of formats and recommended that freshman seminar courses be conducted as full-semester courses.

Schupp (2009) identified orientation programs as the “bridge between the last stages of recruitment and the first stages of retention.” (p.1) He described effective orientation programs as an opportunity to “make a substantial impact on welcoming and connecting students as they transition to a college or university” (p. 1). Further, he noted that orientation activities are important in “introducing students to the individuals and resources they will need when they are in personal or academic jeopardy” (p. 1). In examining a program at a community college, Schupp noted that orientation activities may include: large one-day events, one-day curriculum meetings, registration events, and freshman orientation seminar classes. He further noted that aside from registration, attendance in a variety of orientation activities is voluntary.

Friedman and Marsh (2009) provided information supporting the need to evaluate new student orientation formats. A study conducted by the researchers focused on teaching platforms related to first-year experience programs. The researchers reported no significant differences in program results of varied first-year experience program formats. As a result of the study, the researchers

described effective first-year experience programs and orientation programs in general as “introducing students to the academic and social aspects of college life and setting the stage for a valuable and engaging college experience” (p. 29). Further, Friedman and Marsh concluded that as the needs of colleges change so do the types of first-year seminar programs.

Persistence and Retention

Through a synthesis of more than 2,500 studies on how college programs and experiences affect student development, Pascarella and Terenzini (1991) conclude that, “the weight of the evidence suggests that a first-semester freshman seminar is positively linked with both freshman-year persistence and degree completion. This positive link persists even when academic aptitude and secondary school achievement are taken into account” (pp. 419-429).

Starke, Harth and Sirianni (2001) developed a longitudinal study designed to examine the impacts of a semester-long freshman seminar offered at a four-year university. The researchers reported that “students who enrolled in the freshman seminar course were consistently retained and graduated in significantly higher numbers than their peers who did not take the course”(p. 30). The researchers also reported that:

The data indicated that students who enrolled in the orientation course during their first semester fared significantly better than students who did not take the course in the areas of retention and graduation rates; academic performance; satisfaction with their college experience;

interaction with the faculty; investment in extracurricular activities; and a host of academic, personal, and social skills. (p. 32)

Through research in a four-year university setting, Davig and Spain (2004) also concluded that students who were exposed to foundational student success skills were more likely to re-enroll. The researchers identified freshman orientation classes as one component of a strong retention program and recommended further research in this area.

Strayhorn (2009) conducted a study which reported that students who participated in a semester-long first-year experience program at a four-year university did not necessarily differ from non-participants with respect to academic performance and social integration. Future research recommendations included: researching varying program designs, formats, and outcomes.

Lotkowski, Robbins, and Noeth (2004) presented information in the ACT report: *The Role of Academic and Non-Academic Factors in Improving College Retention*, which identified college retention and academic performance as two different processes affected by different factors. Research conducted by Lotowski, Robbins, and Noeth indicated that college retention is influenced by many non-academic factors including institutional commitment and social support. Through this report, information presented by Kennedy, Sheckley, and Kehrhahn (2000), stated that “despite academic performance, many students persist because of their social integration and feelings of fit with their institution” (p. 15). The ACT report provided recommendations to develop programs that

focus on improving non-academic areas including orientation programs, first-year seminars, and social support groups. The study also recommended that non-academic programs be designed to reinforce to students that they matter to the institution and will be supported as they move towards attaining their educational goals, which should positively influence a student's decision to remain in college.

A review of the literature related to student persistence, retention, new student orientation programs, and first-year experience programs supports the need to evaluate orientation programs in a community college setting. Further, the need to evaluate non-traditional, voluntary orientation programs is supported as well.

Grade Point Average and Student Persistence

Through their research, Ishler and Upcraft (2005) noted that one of the best predictors of first-year student persistence is the grades students earn during the first year. "The narrowest definition of first-year success is the (1) successful completion of courses taken in the first year and (2) continuing enrollment to the second year" (Upcraft, Gardner, & Barefoot, 2005, p. 8).

Though not a comprehensive definition, student success can be identified in one of three ways as follows: "(1) successful completion of courses with an acceptable grade point average, (2) continued enrolment into the second year, and (3) development of higher-order intellectual skills necessary to become an educated person, such as critical thinking, problem solving, and reflective judgment" (Ishler & Upcraft, 2005, pp. 27-28). Though other dimensions of

student success are important in developing the whole student, many colleges and universities focus only the components of the narrow definition.

Schroeder (2005) states that:

According to the research, the two most important influences on student learning and development are (1) interacting in educationally purposeful ways with an institution's agents of socialization such as faculty, staff, and peers, and (2) directing a high degree of effort to academic tasks. (p. 205)

Schroeder (2005) emphasizes the importance of collaborative partnerships between faculty and student service personnel noting that "students who take full advantage of all institutional resources for learning foster their learning and development" (p. 207). This being so, Schroeder notes that historically, "transactions between academic affairs and student affairs have usually occurred on the lower end of the continuum" (p. 207). Additionally, he notes that recent research conducted by Kollins in 2000 indicated that collaboration at the community college level is more promising. Additionally, Cutright (2002) noted that over the past two decades, there has been a dramatic growth in campus-based partnerships between academic and student affairs to address the needs of first-year students (as cited in Upcraft, Gardner, & Barefoot, 2005, p. 3).

Lotkowski, Robbins, and Noeth (2004) reported through their research that retention programs can be improved if they are designed to integrate both academic and non-academic factors stating that "the strongest relationship to

retention occurs when all of the academic and the key-nonacademic factors are combined” (p, 15).

Need for Research

A significant number of scholars and researchers have identified the need to link research with practice in higher education (Altbach, 1998; Bensimon, Polkinghorne, Bauman & Vallejo, 2004; Braxton, 2002; Hossler, Kuh, & Olsen, 2001). Along with this, researchers identify the need for effective program evaluation (Miller, 1999; Rode, 2000). This study supports these recommendations through examining a new student orientation program which was developed based on sound research and practice in higher education.

A review of literature indicates a gap in research at the community college level with the majority of studies evaluating four-year institutions. Additionally, the literature reveals that the majority of research models focus on semester- long orientation seminars. The research study provides research information related to an urban community college and examines a two-hour orientation program offered to students prior to registration. Additionally, the study examines this new student orientation program as it relates to retention and academic success and provides research information which can be transferred to similar institutions. Further, the study examines specialized student populations related to *Closing the Gaps* initiatives, specifically Black and Hispanic students.

CHAPTER 3 METHODOLOGY

Research Design

This research was approved by the University of North Texas Institutional Review Board in Denton, Texas in accordance with the policies and procedures set forth by the institution. This non-experimental study examines if participation in an optional community college new student orientation program has a relationship to student retention rates and grade point averages. The research study utilizes quantitative methodology to examine participation in an optional two-hour new student orientation program offered prior to college registration. The research study examines participation in the orientation program in relation to student persistence and grade point average over a period of four semesters beginning in fall 2006 and concluding in spring 2008. Additionally, the study examines retention rates and academic success of specialized student populations participating in the new student orientation program, identified by ethnic group; specifically Black and Hispanic students.

This study is a causal-comparative research design, which is a type of non-experimental investigation in which researchers seek to identify possible cause-and-effect relationships by forming groups of individuals in whom the independent variable is absent or present (Gall, Gall, & Borg, 2007). The study

is identified as involving two or more groups (research and comparison) and one independent variable. The dependent variables identified are student persistence and grade point average with the independent variable being participation in the new student orientation program.

This study utilizes an ex post facto research approach, operating retrospectively, (Hinkle, 2003) in which the occurrence of the independent variable has already taken place through voluntary student participation in the two-hour new student orientation program offered in Fall 2006. Post hoc data are utilized to examine between-group difference in relation to student persistence and grade point average in the time-frame occurring from Fall 2006 to Spring 2008 with quantitative analysis being made between a comparison group of students not attending the new student orientation program and a research group of those voluntarily electing to participate in the program during the same time frame.

Context and Access

The program examined in this study was developed and implemented by Tarrant County College Northwest Campus located in Fort Worth, Texas. Northwest Campus, one of five campuses in an urban multi-campus system, served a student population of approximately 8,091 in Fall 2006 with 61.5% female and 38.5% male. Ethnic frequencies reported in Fall 2006 were 65.2 % White, 7.9% Black, 21.7% Hispanic, 3.7% Asian, .6 % American Indian, and .9% other (TCC Statistical Handbook, 2006).

Access to student information was granted for this study through a formal approval process established by TCC which includes approval from the following: (1) Vice President for Student Development Services, (2) Campus President, (3) Director of Institutional Research.

Description of Population

The research group in this study is comprised of 464 students who voluntarily attended the new student orientation program in fall 2006; this group represents the *total population* of students who attended the program in fall 2006 and subsequently registered for classes in fall 2006. Data were collected on the entire population of students in the research group through the college's database system in which students were queried individually.

A comparison group pool of 1,000 students was established through a query in the college's database system with identifiers of: (1) specific campus (2) first-time in college fall 2006. The comparison group pool was cross-referenced with the research group and 337 students (33.7 %) were removed from the comparison group pool because they were identified as attending the new student orientation program. After a viable comparison group pool of 663 students was established, pair-wise matching was used to establish a comparison group matching the composition of the research group based on ethnicity, gender, age group (traditional or non-traditional) , and enrollment status (full-time or part-time). The pair-wise matching was utilized to result in a comparison group of 464 students matched on the characteristics of gender,

ethnicity, age group (traditional or non-traditional), and enrollment status (full-time or part-time). Also, pair-wise matching was utilized to ensure homogeneity of population subgroups based on ethnicity. Population pyramids illustrating the composition of the total group and sub-groups provided in Appendix A.

Procedures for Data Collection and Data Review

Student information was obtained by accessing the college's database system and querying individual information with student identification numbers provided by those who attended the program (research group). Additionally, data were collected for the comparison group through the use of student identification numbers. Data collected through the college's database system includes student information related to ethnicity, gender, age group, enrollment status, and grade point average over the period of four semesters beginning in fall 2006 and ending in spring 2008. Data were collected on each student voluntarily attending the new student orientation program in fall 2006 who subsequently enrolled in fall 2006 and also on students assigned to the comparison group who did not attend the program but enrolled as first-time students in fall 2006.

To determine the sample size necessary to achieve an acceptable level of power, G*Power Version 3.0.10 software (Faul, Erdfelder, Land, & Buchner, 2007) was utilized to determine, a priori, a minimum recommended sample size based on the following parameters:

Table 1

*Parameters related to G*Power Version 3.0.10 software*

Measurement:	Cross-tabulation, Multi-Dimensional Chi-Square
Tails:	1
Variable Ratios:	1.5
Alpha Level:	.05
Desired Power:	.95
Measurement:	<i>t</i> -Test (independent)
Effect size:	.5 (medium magnitude)
Alpha Level:	.05
Desired Power:	.95
Measurement:	ANOVA – One-Way
Effect Size:	0.25 (medium Magnitude)
Alpha Level:	.05
Desired Power:	.95
Number of Groups:	2

Table 1 (continued)

*Parameters related to G*Power Version 3.0.10 software*

Measurement:	ANOVA – Multi-Way
Effect Size:	0.25 (medium Magnitude)
Alpha Level:	.05
Desired Power:	.95
Number of Groups:	6

Based on these parameters, the G*Power software yielded that a minimum sample size of 134 for chi squared testing, 88 for independent *t*-tests, 210 for one-way ANOVA calculations, and 413 for multi-way ANOVA calculations was identified as necessary to achieve the desired power of 95% with an alpha level of .05 in each test.

Further, based upon recommendation by the American Psychological Association Task Force on Statistical Inference (Wilkinson & APA Task Force on Statistical Inference, 1999) a visual inspection of data was conducted prior to analysis. Through this visual inspection, data was examined for invalid parameters and missing information. In cases where invalid parameters or missing data were identified, further investigation was conducted and corrections were made to ensure the validity of these data.

Data Analysis

A database was created in the SPSS 16.0 software program for data analysis purposes in this study. Each individual case (student) in both the research (identified as NSO) and comparison groups was assigned an identification number separate and apart from any TCC institutional identifying number to ensure anonymity. Data were entered for each student pertaining to enrollment status as follows: 1. Fall 2006, 2. Spring 2007, 3. Fall 2007, Spring 2008. Enrollment status for each semester was coded and entered as “1” for enrolled and “2” for not enrolled. Also, grade point averages were entered for each student in semesters in which they were enrolled. Additionally, information related to gender, ethnicity, age (traditional/non-traditional) and course load (full-time/part-time) were entered in the SPSS worksheet for each student.

Data analysis was performed to examine differences in retention rates and grade point averages of the research and comparison groups. Retention rates were compared between the groups at three points in time as follows: Spring 2007, Fall 2007, Spring 2008. A calculated grade point average was computed for each student in the study. The calculated grade point average was computed by adding the total grade points each student earned and dividing this number by the total number of credit hours the student completed during the duration of their enrollment. These calculations were computed through a spreadsheet and subsequently entered into the SPSS worksheet. Further, data analysis was used to examine differences between the research and comparison group based

on ethnicity. An alpha level of .05 was used for statistical significance testing which is typically used in social sciences research.

The scale of the dependent variable of retention is identified as a categorical (dichotomous) variable in which subjects are categorized exclusively in one of two groups , i.e., “retained” or “not retained.” This being so, groups were measured/compared using the multi-dimensional chi-square test based on the following:

In cases where the researcher will utilize frequency counts for the dependent variable, the appropriate inferential statistic to be used is the chi-square test. This statistic tests the significance of differences between two or more groups (independent variable) in frequencies for the dependent variable (Minnesota State University, 2010, p. 3).

Further, related to the SPSS software program:

The multi-dimensional chi-square test is used when the researcher wants to determine if there is a relationship, association, or difference between two categorical variables and is a subcommand of the crosstabs command in SPSS used to obtain the test statistic and its associated p-value. (University of California Los Angeles, 2010 p. 3)

The multi-dimensional chi-square test can be used as a test of association or a test of differences between independent groups. The test will calculate differences between independent groups and use statistical analysis to

determine if these differences are statistically significant (Brace, Kemp, & Snegler, 2003, p. 98).

The dependent variable of grade point average is classified as continuous and ratio in scale and measurement. In this causal-comparative research study independent *t*-test, was used to compare the means of grade point averages between the two groups; research and comparison groups; based on the following: “The independent *t*-test compares the performance of participants in group A with the performance of participants in Group B. This test should be used when the data are parametric and obtained using an independent groups design” (Brace, Kemp, & Snelgar, p. 63).

The one-way ANOVA was used to compare the means of the research and comparison group on the variable of calculated grade point average for specialized student population sub-groups ethnicity; comparing averages for Black students who attended the new student orientation to Black students who did not attend the new student orientation and Hispanic students who attended the orientation to Hispanic students who did not attend the orientation. Further, a multi-way ANOVA was utilized to determine if there were any interaction effects related to the factors of group (NSO or comparison) and ethnicity when measuring the variable of calculated grade point average

CHAPTER 4

PRESENTATION OF THE FINDINGS

As stated in Chapter 1, the purpose of this study is to compare student success exhibited through student retention rates and academic performance (GPA) of students who participated in a voluntary pre-semester new student orientation program offered in a community college setting and students who did not participate in the program. The orientation program examined was offered in a two-hour format designed to meet the unique needs of community college students. Data for total group comparisons and comparisons of specific minority student populations; Black and Hispanic students, were analyzed. This chapter is organized and data are presented related to research questions posed in Chapter 1.

Research Questions, Hypotheses, and Null Hypotheses

Question 1

- Is there a statistically significant difference in retention rates between students who attended a non-traditional new student orientation program and students who did not attend the orientation program

Question 2

- Is there a statistically significant difference in grade point average between students who attended a non-traditional new student

orientation program and students who did not attend the orientation program?

Question 3

- Is there a statistically significant difference in retention rates based on ethnicity between students who attended a non-traditional new student orientation program and students who did not attend the orientation program?

Question 4

- Is there a statistically significant difference in grade point average based on ethnicity between students who attended a non-traditional new student orientation program and students who did not attend the orientation program?

Hypotheses and Null Hypotheses

For the purposes of statistical significance testing, the null hypotheses are as follows:

Question 1:

Hypothesis

Students who attended a non-traditional new student orientation program will have a higher retention rate than students who did not attend the orientation program.

Null Hypothesis

There will be no difference in retention rates between students who attended a non-traditional new student orientation and students who did not attend the orientation program.

Question 2:

Hypothesis

Students who attended a non-traditional new student orientation program will have a higher grade point average (GPA) than students who did not attend the orientation program.

Null Hypothesis

There will be no difference in grade point average (GPA) between students who attended a non-traditional new student orientation program and students who did not attend the orientation program.

Question 3:

Hypothesis

Minority students who attended a non-traditional new student orientation program will have a higher retention rate than minority student students who did not attend the orientation program.

Null Hypothesis

There will be no difference in retention rates between minority students who attended a non-traditional new student orientation program and minority students who did not attend the orientation program.

Question 4:

Hypothesis

Minority students who attended a non-traditional new student orientation program will have a higher grade point average than minority students who did not attend the orientation program.

Null Hypothesis

There will be no difference in grade point average between minority students who attended a non-traditional new student orientation program and minority students who did not attend the orientation program.

Data Analysis

Retention Rates

The multi-dimensional chi-square test was used to test for statistically significant differences in retention rates of students who attended the new student orientation program and students who did not attend the new student orientation program. Retention rates for the second, third, and fourth semesters were examined. Research Questions 1 and 3 were addressed through chi square testing of the research (NSO) and comparison groups as follows: (1) Total group; comparison of NSO and comparison groups, (2) Black sub-group; comparison of Black students in NSO and comparison groups, and (3) Hispanic sub-group; comparison of Hispanic students in NSO and comparison groups.

Total Group – Chi Square Findings

Data for the total group were analyzed for second semester, third, semester, and fourth semester retention rates. G*Power software was utilized and results of G*Power analysis for chi-square testing indicated that a minimum sample size of 134 was met with 464 in each group, thus results from the total group analysis produced an expected test reliability of 95% power.

Second Semester Retention- Total Group

Cross-tabulation frequencies of students in the NSO and comparison groups for second semester retention are illustrated Table 2.

Table 2

Total Group Frequencies for Enrollment - NSO and Comparison Groups Second Semester Retention – Spring 2007

Variable	NSO	%	Comparison	%
Enrolled	343	73.9%	310	66.8%
Not Enrolled	121	26.1%	154	33.2%
Total	464 (N)	100%	464 (n)	100%

Based on these frequencies, outcomes of the chi-square analysis in the total group showed there was a statistically significant positive relationship between attending a new student orientation program and retention for the spring 2007 semester (second semester), ($X^2 = 5.628$, $df = 1$, $p < .05$). (See Table 3).

Table 3

Summary of Chi-Square Results for Total Group

Second Semester Retention – Spring 2007

Measurement	Value	df	p, sig.
Pearson Chi-Square	5.628	1	.018

Third Semester Retention – Total Group

Fall 2007 cross-tabulation frequencies of students in the NSO and comparison groups for third semester retention are illustrated Table 4.

Table 4

Total Group Frequencies for Enrollment - NSO and Comparison Groups

Third Semester Retention- Fall 2007

Variable	NSO	%	Comparison	%
Enrolled	264	56.9%	240	51.7%
Not Enrolled	200	43.1%	224	48.3%
Total	464 (N)	100%	464 (n)	100%

Results of statistical analysis for the total group showed there was no relationship between attending a new student orientation program and retention for the fall 2007 semester (third semester), ($X^2 = 2.501$, $df = 1$, $p = .114$).

Fourth Semester Retention – Total Group

Cross-tabulation frequencies of students in the NSO and comparison groups for fourth semester retention (Spring 2008) are illustrated Table 5.

Table 5

*Total Group Frequencies for Enrollment - NSO and Comparison Groups
Fourth Semester Retention- Spring 2008*

Variable	NSO	%	Comparison	%
Enrolled	217	46.8%	209	45.0%
Not Enrolled	247	53.2%	255	55.0%
Total	464 (N)	100%	464 (n)	100%

Results of statistical analysis for the total group showed there was no relationship between attending a new student orientation program and retention for the Spring 2008 Semester (fourth semester), ($X^2 = .278$, $df = 1$, $p = .598$).

Black Sub-Group – Chi Square Findings

In analyzing the data for the Black sub-group, it was noted that there was a small sample size, $n=16$ in both the research and comparison groups. Due to the small sample-size, the Yates's correction was used in the multi-dimensional chi-square testing. Additionally, the Fisher's Exact Test was used in cases

where cross-tabulation cells had an expected count of less than 5 (Brace, Kemp, & Snegler, 2003, p.107).

Second Semester Retention – Black Sub-Group

Cross-tabulation frequencies of Black students in the NSO and comparison groups for second semester retention are illustrated Table 6.

Table 6

*Black Sub-Group Frequencies for Enrollment - NSO and Comparison Groups
Second Semester Retention – Spring 2007*

Variable	NSO	%	Comparison	%
Enrolled	15	93.8%	8	50.0%
Not Enrolled	1	6.2%	8	50.0%
Total	16 (<i>n</i>)	100%	16 (<i>n</i>)	100%

Based on these frequencies, outcomes of the chi-square analysis in the Black student sub-group group showed there was a statistically significant positive relationship between attending a new student orientation program and retention for the Spring 2007 Semester (second semester), ($X^2 = 5.565$, $df = 1$, $p < .05$). (See Table 7).

Table 7

Summary of Chi-Square Results for Black-Sub Group

Second Semester Retention – Spring 2007

Measurement	Value	df	p, sig.
Yate's Corrected Chi Square	5.565	1	.018
Fisher's Exact Test			.008

Due to the small sample size in this sub-group, G*Power software was used to conduct a compromise test to determine the implied power for this chi square test. The following parameters were used:

Measurement	Multi-Dimensional Chi Square
Variable Ratio	1.5
β/α ratio	.16
Total Sample Size	32

The results of this test indicated that 92% power could be assumed for the reliability of findings.

Third Semester Retention – Black Sub-Group

Fall 2007 cross-tabulation frequencies of Black students in the NSO and comparison groups for third semester retention are illustrated Table 8.

Table 8

*Black Sub- Group Frequencies for Enrollment - NSO and Comparison Groups
Third Semester Retention- Fall 2007*

Variable	NSO	%	Comparison	%
Enrolled	8	50.0%	7	43.8%
Not Enrolled	8	50.0%	9	56.2%
Total	16 (<i>n</i>)	100%	16 (<i>n</i>)	100%

Results of statistical analysis for the Black student sub-group showed there was no relationship between attending a new student orientation program and retention for the Fall 2007 Semester (third semester), ($\chi^2 = .000$, $df = 1$, $p = 1.0$).

Fourth Semester Retention – Black Sub-Group

Cross-tabulation frequencies of Black students in the NSO and comparison groups for fourth semester retention (Spring 2008) are illustrated Table 9.

Table 9

*Black Sub-Group Frequencies for Enrollment - NSO and Comparison Groups
Fourth Semester Retention- Spring 2008*

Variable	NSO	%	Comparison	%
Enrolled	6	37.5%	4	25.0%
Not Enrolled	10	62.5%	12	75.0%
Total	16 (<i>n</i>)	100%	16 (<i>n</i>)	100%

Statistical analysis results for the Black sub-group showed there was no relationship between attending a new student orientation program and retention for the Spring 2008 Semester (fourth semester), ($X^2 = .145$, $df = 1$, $p = .703$).

Hispanic Sub-Group – Chi Square Findings

In analyzing the data for the Hispanic sub-group, it was noted that the sample size ($n=121$ NSO, $n=121$ comparison) was less than the recommended size calculated with a priori testing for chi-square analysis in G* Power (recommended $n= 134$) to obtain achieved power of 95%. Post-hoc calculations were run in G*Power with results indicating that this chi-square test, run with a sample size of 121 in each group would produce an expected power of 93%.

Second Semester Retention – Hispanic Sub-Group

Cross-tabulation frequencies of Hispanic students in the NSO and comparison groups for second semester retention are illustrated Table 10.

Table 10

*Hispanic Sub-Group Frequencies for Enrollment - NSO and Comparison Groups
Second Semester Retention – Spring 2007*

Variable	NSO	%	Comparison	%
Enrolled	90	74.4%	90	74.4%
Not Enrolled	31	25.6%	31	25.6%
Total	121 (<i>n</i>)	100%	121 (<i>n</i>)	100%

Based on these frequencies, results from statistical analysis for the Hispanic student sub-group showed there was no relationship between attending a new student orientation program and retention for the Spring 2007 Semester (second semester), ($X^2 = .000$, $df = 1$, $p = 1.000$).

Third Semester Retention – Hispanic Sub-Group

Fall 2007 cross-tabulation frequencies for Hispanic students in the NSO and comparison groups for third semester retention are illustrated Table 11.

Table 11

*Hispanic Sub- Group Frequencies for Enrollment - NSO and Comparison Groups
Third Semester Retention- Fall 2007*

Variable	NSO	%	Comparison	%
Enrolled	78	64.5%	70	57.9%
Not Enrolled	43	35.5%	51	42.1%
Total	121 (<i>n</i>)	100%	121 (<i>n</i>)	100%

Results of statistical analysis for the Hispanic student sub-group showed there was no statistically significant relationship between attending a new student orientation program and retention for the Fall 2007 Semester (third semester), ($X^2 = 1.113$, $df = 1$, $p = .291$).

Fourth Semester Retention – Hispanic Sub-Group

Cross-tabulation frequencies of Hispanic students in the NSO and comparison groups for fourth semester retention (Spring 2008) are illustrated Table 12.

Table 12

*Hispanic Sub-Group Frequencies for Enrollment - NSO and Comparison Groups
Fourth Semester Retention- Spring 2008*

Variable	NSO	%	Comparison	%
Enrolled	61	50.4%	61	50.4%
Not Enrolled	60	49.6%	60	49.6%
Total	121 (n)	100%	121 (n)	100%

Results of statistical analysis for the Hispanic sub-group showed there was no relationship between attending a new student orientation program and retention for the Spring 2008 Semester (fourth semester), ($X^2 = .000$, $df = 1$, $p = 1.000$).

Grade Point Average

In this causal-comparative research study the independent t -test, was used to compare the means of the calculated grade point averages of students in the research group and comparison group. Results from the analysis conducted with G*Power software indicated that a minimum sample size of 88 was necessary to produce an expected test reliability of 95% power for independent t -tests. For the total group analysis, this sample size was met with 464 in the NSO group and 464 in the comparison group.

Also, a one-way ANOVA was used to compare the means of ethnic sub groups; comparing the GPAs of Black students who attended new student orientation to Black students who did not attend new student orientation, and Hispanic students who attended new student orientation to Hispanic students who did not attend new student orientation. G*Power software indicated that a minimum sample size of 210 was necessary to produce an expected test reliability of 95% power for independent *t*-tests. Neither sub-group; Black (NSO $N = 16$,Comparison $n = 16$) or Hispanic (NSO $N = 121$ Comparison $n = 121$); contained a sufficient number of cases to produce necessary power. This being so, compromise tests were run in G*Power software and power levels are reported in the sub-group analysis sections of this chapter.

Lastly, a multi-way ANOVA was utilized to determine if there were any interaction effects related to ethnic groups of students who attended new student orientation and who did not attend new student orientation. A priori tests calculated using G*Power software indicated that a minimum sample size of 413 was necessary to produce an expected test reliability of 95% power for multi-way ANOVA tests. For the total group analysis, this sample size was met with 464 in the NSO group and 464 in the comparison group.

Total Group – Independent t-test

Independent *t*-test results showed that there was a statistically significant positive relationship between attending a new student orientation program and calculated GPA, ($t = 2.147$, $df = 926$, $p = .016$, one-tailed). The calculated GPA

was higher for students who attended a new student orientation program (mean = 2.17) than for students who did not attend a new student orientation program (mean =1.99). (See Table 13).

Table 13

Summary of Independent Sample t-test Results for Academic Performance (Calculated GPA) – Total Group

Variable	N	M	SD	t	df	p
NSO Group	464	2.175	1.245			
				2.147	926	.016
Comparison Group	464	1.997	1.227			

One-Way ANOVA

Black Sub-Group

Related to Black students, the one-way ANOVA test results showed that there was a statistically significant positive relationship between attending a new student orientation program and calculated GPA, ($F(1,30) = 6.124, p = .019$). The calculated GPA was higher for Black students who attended a new student orientation program (mean = 2.15) than for Black students who did not attend a new student orientation program (mean =1.17). (See Table 14).

Table 14

*Summary of One-Way ANOVA Results for
Academic Performance (Calculated GPA) – Black Sub- Group*

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>df</i>	<i>p</i>
NSO Group	16	2.152	1.176			
Comparison Group	16	1.172	1.060			
Between Groups				6.124	1	.019
Within Groups					30	

Compromise analysis testing was used to compute the implied power of the one-way ANOVA testing with the following parameters:

Measurement	ANOVA – One-Way
Effect Size	0.25 (medium Magnitude)
β/α ratio	.38
Total Sample Size:	32
Number of Groups	2

The results of this analysis indicated that the results of the one-way ANOVA test conducted for the Black student sub-group would have an implied power of 80%.

Hispanic Sub-Group

Data analysis results (ANOVA) for the Hispanic student sub-group showed that there was no statistically significant relationship between attending a new student orientation program and calculated GPA, ($F(1,240) = 2.246, p > .05$).

Multi-Way ANOVA

Related to GPA, a multi-way ANOVA was utilized to determine if there were any between-subjects interaction effects related to ethnic groups of students who attended new student orientation and who did not attend new student orientation. Results of this test showed that there was no significant interaction between the factor of group (NSO or comparison) and the factor of ethnicity, ($F(5,916) = 1.34, p = .256$).

CHAPTER 5

CONCLUSIONS

Introduction

This chapter provides information related to the development of this quantitative research study along with re-stating the problem statement and research questions addressed. Findings from the statistical analysis of data are presented and discussed. Conclusions from these findings along with recommendations for future research are provided.

Summary of the Study

This causal-comparative research study was designed to examine participation in a two-hour, voluntary, new student orientation program (NSO) offered in an urban community college as related to retention and academic success. Review of the literature revealed that limited research information is available related to new student orientation programs offered in a non-traditional format (two-hours) in community college settings. Further, limited research information is available in this area related to retention and grade point average, specifically for minority students. These data are needed to support the initiatives presented in the *Closing the Gaps* plan in the area of research and

evaluation of retention programs and outcomes related to Black and Hispanic students.

This quantitative post-hoc study examined a research group of students who attended a pre-semester, voluntary, new student orientation program in an urban community college and compared the variables of retention rates and grade point average to a comparison group of students who did not attend the new student orientation program. Retention rates were examined for the total group and minority sub-groups (Black and Hispanic) for second semester, third semester, and fourth semester retention. Further, academic success, exhibited through a grade point average, was examined through comparing the calculated grade point averages of students in the research and comparison groups. Grade point averages were compared for the total group as well as sub-groups of Black and Hispanic students.

To examine these areas the following research questions were formulated and addressed:

Question 1

- Is there a statistically significant difference in retention rates between students who attended a non-traditional new student orientation program and students who did not attend the orientation program?

Question 2

- Is there a statistically significant difference in grade point average between students who attended a non-traditional new student

orientation program and students who did not attend the orientation program?

Question 3

- Is there a statistically significant difference in retention rates based on ethnicity between students who attended a non-traditional new student orientation program and students who did not attend the orientation program?

Question 4

- Is there a statistically significant difference in grade point average based on ethnicity between students who attended a non-traditional new student orientation program and students who did not attend the orientation program?

Findings

Research Questions 1 and 3 addressed student retention for the total group and also for minority sub-groups. Chi-square testing was utilized and data analysis results related to Research Question 1 (total group retention) suggest that attending a non-traditional new student orientation program in an urban community college has a statistically significant positive impact on second semester retention rates. Also, though not statistically significant, retention rates for the third and fourth semesters were slightly higher for students who attended the new student orientation program than for students who did not.

Related to Research Question 3, chi-square testing was also used to compare retention rates of Black students who attended the new student orientation program to Black students who did not attend the new student orientation program. Data analysis results suggest that attending a non-traditional new student orientation program at an urban community college has a statistically significant positive impact on second semester retention rates of Black students, with 93% of the research group (students attending NSO) re-enrolling for the second semester. Though not statistically significant, retention rates for the third and fourth semesters were slightly higher for Black students who attended the new student orientation program.

Also related to research question 3, chi-square testing was used to compare retention rates among Hispanic students who attended the new student orientation program to Hispanic students who did not attend the new student orientation program. Results suggest that there is no relationship between retention rates and attending a non-traditional new student orientation program in an urban community college for Hispanic students. There were no differences between retention rates for the research group and comparison group for second and fourth semester retention rates. Third semester retention rates showed only a slight increase for Hispanic students who attended the new student orientation program when compared to Hispanic students who did not attend the program.

Research questions 2 and 4, related to grade point average (GPA), were explored through the independent *t*-test and also through ANOVA testing. In

examining the total group (research question 2), results of the independent *t*-test suggest that there is a statistically significant positive relationship between attending a non-traditional new student orientation program and increased grade point averages. It is noted that although there is a statistically significant difference between the GPAs of the two groups (research and comparison), the differences in GPA are not extreme.

In examining research question 4, ANOVA testing was used to compare the calculated grade point averages of Black students who attended the new student orientation program to Black students who did not attend a new student orientation program. Data analysis results suggest that there is a statistically significant positive relationship between attending the new student orientation program and increased GPA among Black students, with the mean GPA of the research group (students who attended NSO) reported as 2.152 and the mean GPA of the comparison group reported as 1.172. Also, in reporting data for this sub-group, it is noted that due to the small sample size (NSO group $N=16$, comparison group $n = 16$), the estimated power of test results is calculated at 80%.

ANOVA testing was also used to compare the calculated GPAs of Hispanic students who attended the new student orientation program to Hispanic students who did not attend the new student orientation program. Results of the ANOVA testing, related to research question 4, suggest that there is no relationship between attending a non-traditional new student orientation program

in an urban community college and GPA among Hispanic students, with very slight differences in GPA reported between the two groups (research and comparison).

Further examination of data related to GPA was explored through a multi-way ANOVA to determine if there were any interaction effects related to the factors of group (NSO or comparison) and ethnicity. The results of data analysis suggest that there are no interaction effects related to GPA; further stated, no ethnic group in the NSO group had statistically significant differences in calculated GPA when compared to ethnic groups in the comparison group – e.g.: specific ethnic groups of students in the NSO group did not have a statistically significant higher GPA than any other ethnic group of students who participated in the new student orientation program.

Conclusions and Implications

Findings from this study related to attendance of an optional, two-hour, new student orientation program in an urban community college are in line with the findings of similar studies related to pre-semester and semester-long programs at four-year and two-year colleges in the areas of retention and grade point (Derby and Watson, 2006; Hollins, 2009; Opp, 2002; Parker, 1998; Schnell & Doetkott, 2002).

This study is a non-experimental design, and therefore restricted to correlations, absent of cause-effect conclusions. Recommendations provided are based on the knowledge base set forth in the literature review and

information gleaned from this study related to one unique program examined in a community college setting. Results related to student retention in this study suggest that second semester retention rates in community colleges might be increased through the development and delivery of pre-semester new student orientation programs offered in a non-traditional format (two-hour programs) designed to meet the unique needs of community college students.

When examining minority sub-groups, the results from this study suggest that second semester retention rates of Black students might be increased through programs such as new student orientation while the same type of program may not have any impact on the retention rates of Hispanic students.

With varied findings related to minority groups, questions are raised as to how orientation professionals should design and deliver programs to meet the needs of diverse student groups. Jacobs and Bowman (2003) recommend that “orientation professionals determine the composition of new students entering the institution and assess their needs.” (p.91). Further, Jacobs and Bowman (2003) note that there are several types of adjustments that can be made to best serve various populations such as: offering separate programs for unique groups of students, providing extended programs, offering scheduling options, and providing break-out session to address the unique needs of diverse student populations.

Findings in this study related to GPA suggest that academic success of community college students might be enhanced through the development and

delivery of pre-semester new student orientation programs. Examination of minority groups reveals mixed findings in that while academic success of Black community college students may be positively impacted by attendance of a pre-semester orientation program, Hispanic community college student GPAs were not impacted by attendance in the same program. Jacobs and Bowman (2003) state that “a separate orientation program for a specific group of students may be warranted if that student population is widely recognized to be more ‘at risk’ than other student groups.” (p.91).

Through this particular study, it is noted that minority participation in the voluntary new student orientation program is not proportional to minority enrollment in the institution. Of the minority students who voluntarily attended the program, 3% were Black and 26% were Hispanic. When compared to enrollment rates for the institution studied, these numbers are disproportionate with institutional enrollment ratios being 7.9% Black and 21.7% Hispanic (TCC Statistical Handbook, 2006). Further, the percentage of Black students voluntarily attending the new student orientation program was lower than the institutional enrollment ratios while the percentage of Hispanic students voluntarily attending the orientation program was higher than the institutional ratios. This being so, it is recommended that orientation professionals examine strategies to increase minority participation- especially among Black students. Further, it is noted that data from this study related to minority participation rates and student success

could be useful for professionals seeking scholarship funds or grant funds for these minority groups.

Based on findings from this study, it is recommended that community colleges consider implementing mandatory attendance of pre-semester new student orientation programs rather than voluntary attendance, perhaps resulting in opportunities for increased first semester retention and academic success among all student groups.

Future Research

Research related to pre-semester orientation programs offered in community college settings is limited. Additional research in this area would expand the knowledge-base and provide community college administrators with information which would be useful for decision-making related to orientation programming and resources.

While findings in this study related to Black students were significant, it is recommended that further research be developed to include larger sample sizes for Black students, thus increasing the knowledge base in this area.

Moreover, when examining community college minority student populations in this study, it is evident that further research is needed related to Hispanic student retention and academic success. Information related to this pre-semester new student orientation program may provide a small piece to a larger puzzle. Findings from this study suggest additional research of programs and resources may be needed to address Hispanic student needs related to retention

and academic success in community colleges. Additional research is needed to identify and address the unique needs of Hispanic community college students.

Further, it is recommended that qualitative research be conducted related to pre-semester new student orientation programs in community colleges.

Information gleaned from student focus groups could provide useful information in identifying strategies for creating programs designed to increase retention and academic success while meeting the unique needs of diverse student groups.

Additionally, future research related to new student orientation programs should include the variables of full-time and part-time students. Enrollment trends reflect an increase in the numbers of part-time students, a population with special risk characteristics (U.S. Department of Education, 2010).

Lastly, research which focuses on graduation rates and transfer rates could provide additional information which would be useful in assessing student outcomes related to *Closing the Gaps* initiatives. Research which examines programs with possible longer range effects on retention and academic success might include: 1. programs which may impact retention past the first semester, 2. programs which provide support for persistence towards graduation, 3. programs which are designed to assist with community college student transfers to a four-year university.

Summary

The Texas Higher Education Coordinating Board (THECB) and the initiative *Closing the Gaps by 2015*, identify the need for an increase in the

number of degrees, certificates, and other identifiable student successes among undergraduate students. A large gap exists in Texas among racial and ethnic groups, specifically Black and Hispanic students, in enrollment, retention and graduation rates from community colleges and universities. With Texas community colleges enrolling 54% of the state's college students and 78% of all Texas minority students, it is imperative that these two-year institutions identify, develop, and implement programs which will increase student retention, academic success, and graduation rates among all ethnic groups. (TACC, 2010).

A number of researchers have identified and recommend a variety of positive retention strategies which include new student orientation programs (Ashburn, 2007; Braxton & McClendon, 2001; Hollins, 2009; Lotkowski, Robbins, & Noeth, 2004; Perrine & Spain, 2008; Sander, 2008; Swail, Redd, & Perna, 2003). This study examined student success exhibited through student retention rates and academic performance (GPA) of students who participated in a non-traditional, voluntary, pre-semester new student orientation program offered in a community college environment and students who did not participate in the program. Through this study, minority sub-groups; Black and Hispanic, were also examined.

Findings from this study suggest that students who participated in the non-traditional new student orientation program had higher retention rates and calculated grade point averages than students who did not participate in the program. Statistically significant results suggest positive relationships in the area

of second semester retention of the total student group and Black sub-group. Further, statistically significant results suggest positive relationships in GPA and attendance of the new student orientation program among the total group and Black sub-group.

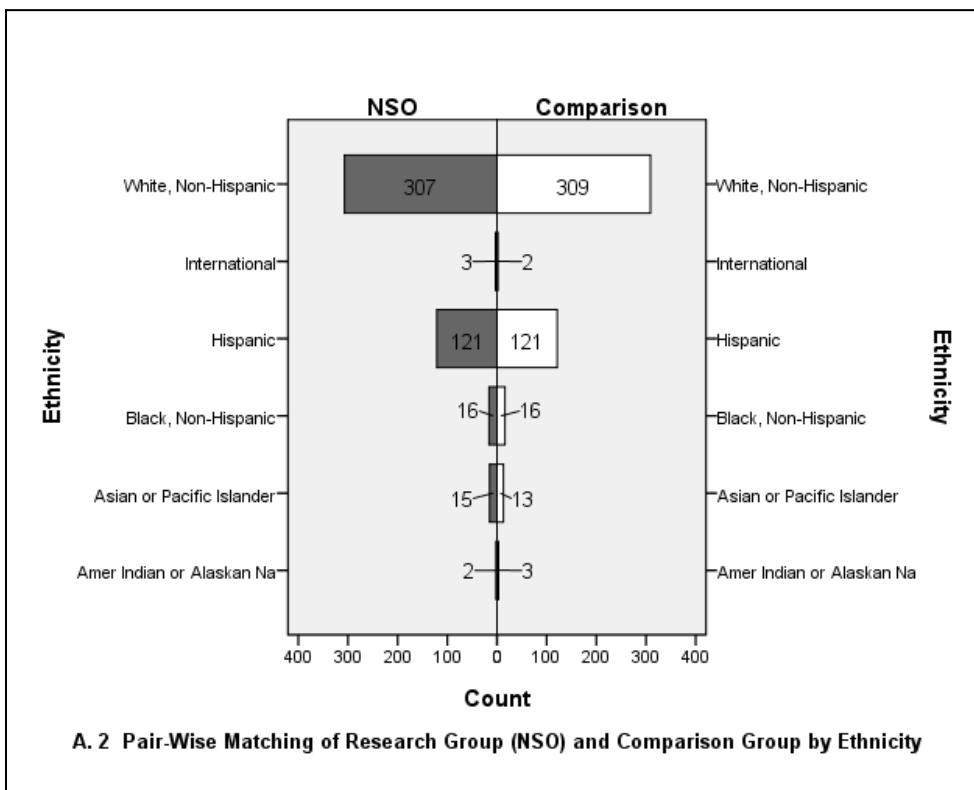
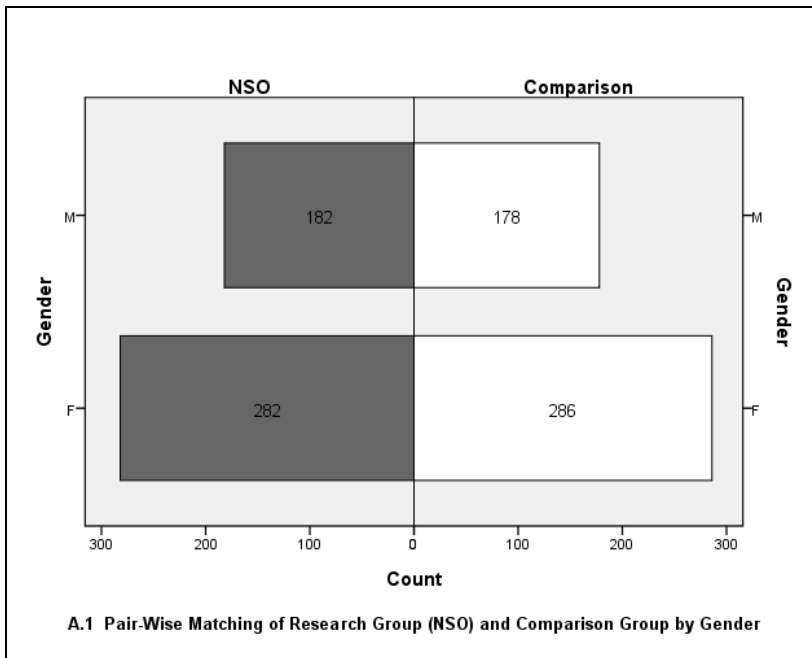
Conversely, no statistically significant results were found related to retention rates or GPA among Hispanic students who attended the new student orientation program. These findings, related to Hispanic student retention, are consistent with research conducted by Ornelas & Solorzano (2004) and are in line with recommendations provided by the researchers related to persistence and retention of Latinas/os including the need for summer bridge programs, first-year seminars, mentoring programs, and expanded orientation programs designed to promote campus engagement and academic achievement for Hispanic students.

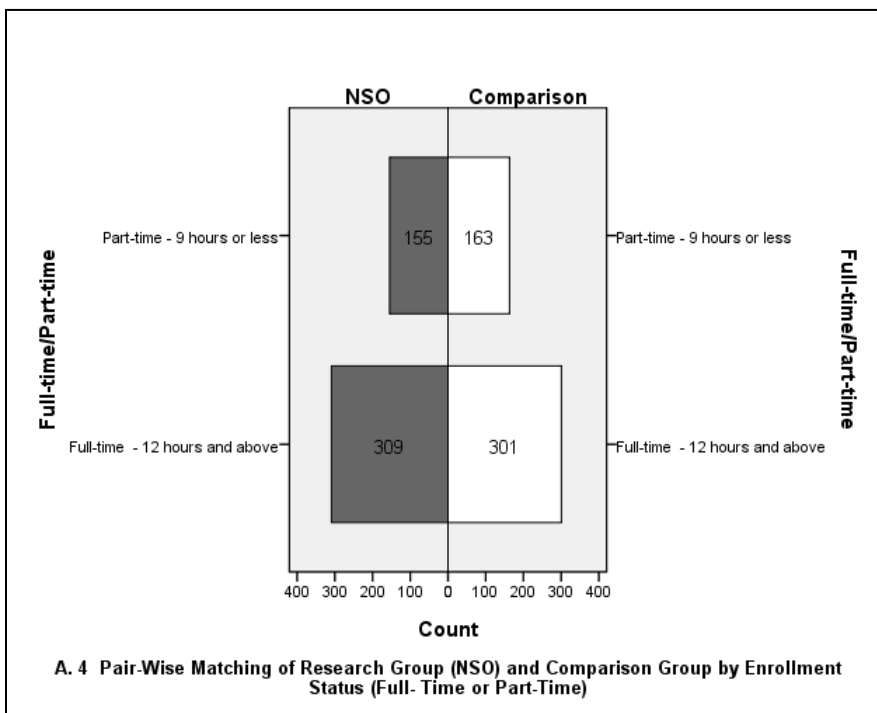
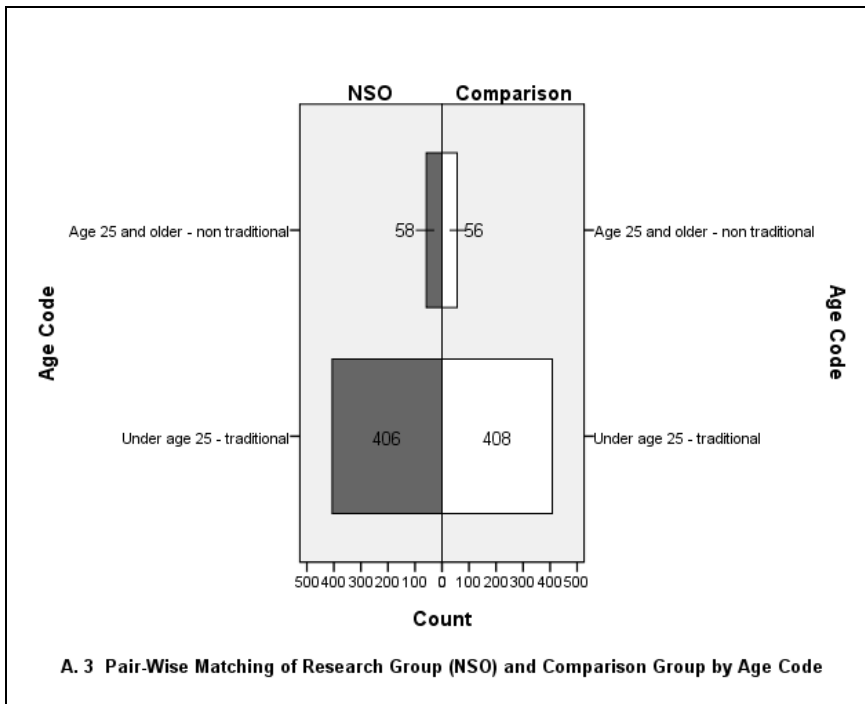
Based on findings in this study, it is recommended that orientation professionals in community colleges consider developing and implementing new student orientation programs which meet the unique needs of community college students. Further, it is suggested that positive results of non-traditional new student orientation programs in community colleges might be maximized if these programs were mandatory for all first-time-in-college students.

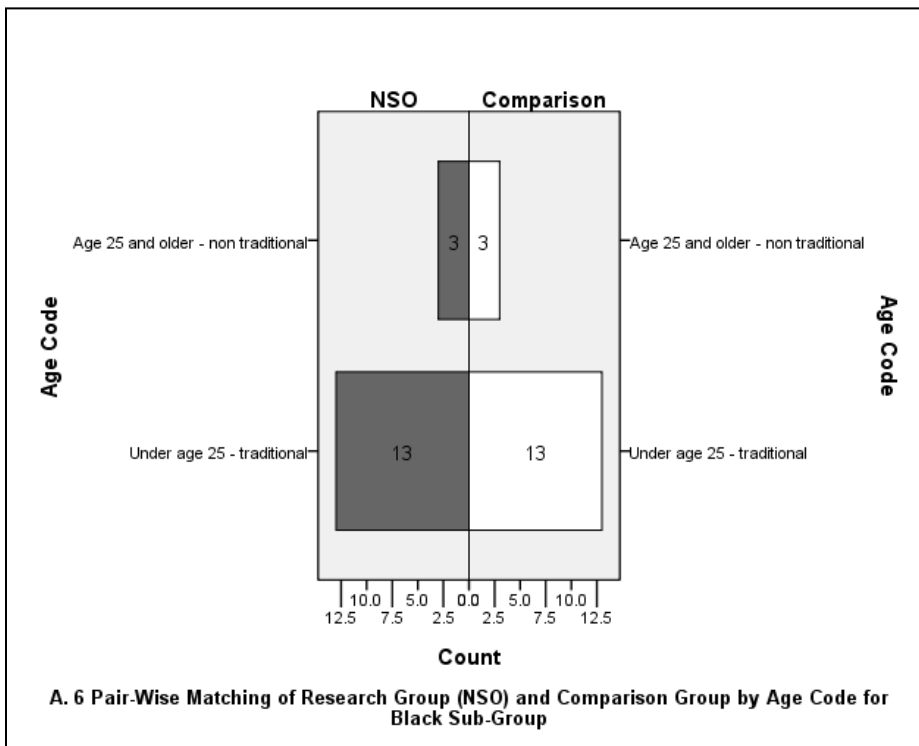
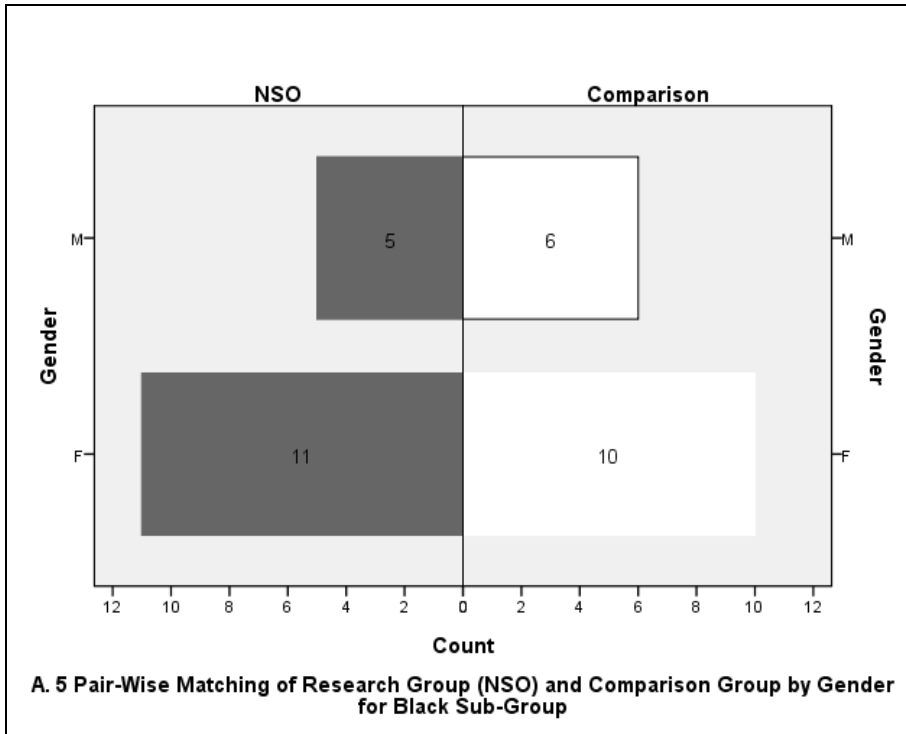
This research study adds to the body of knowledge related to pre-semester orientation programs in a community college environment and provides specific research information related to minority student retention. Findings of

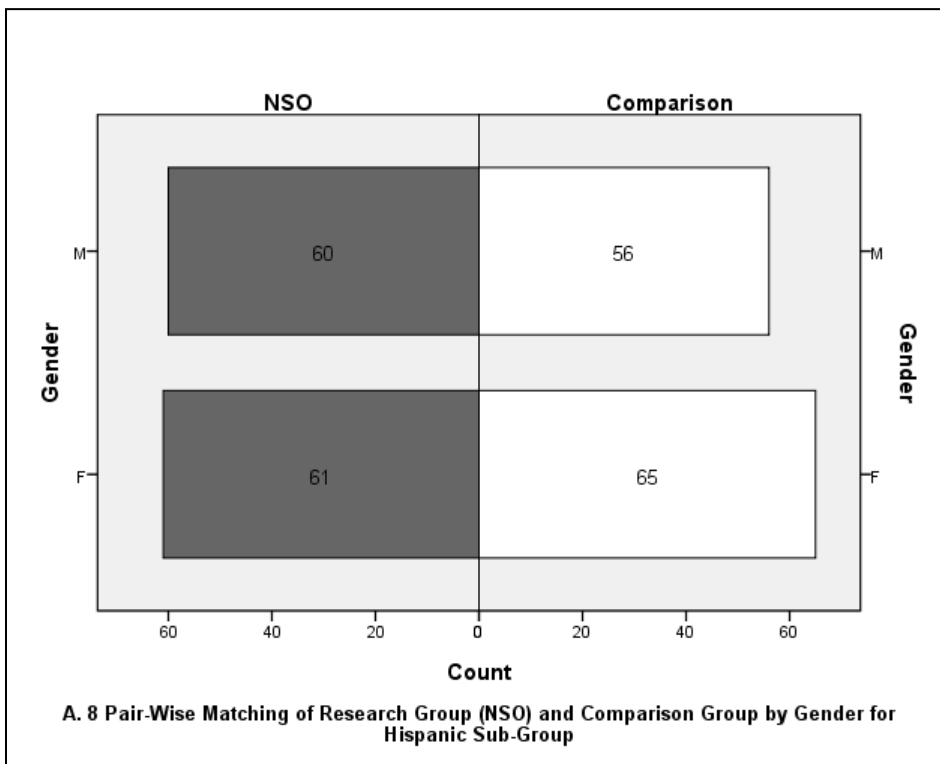
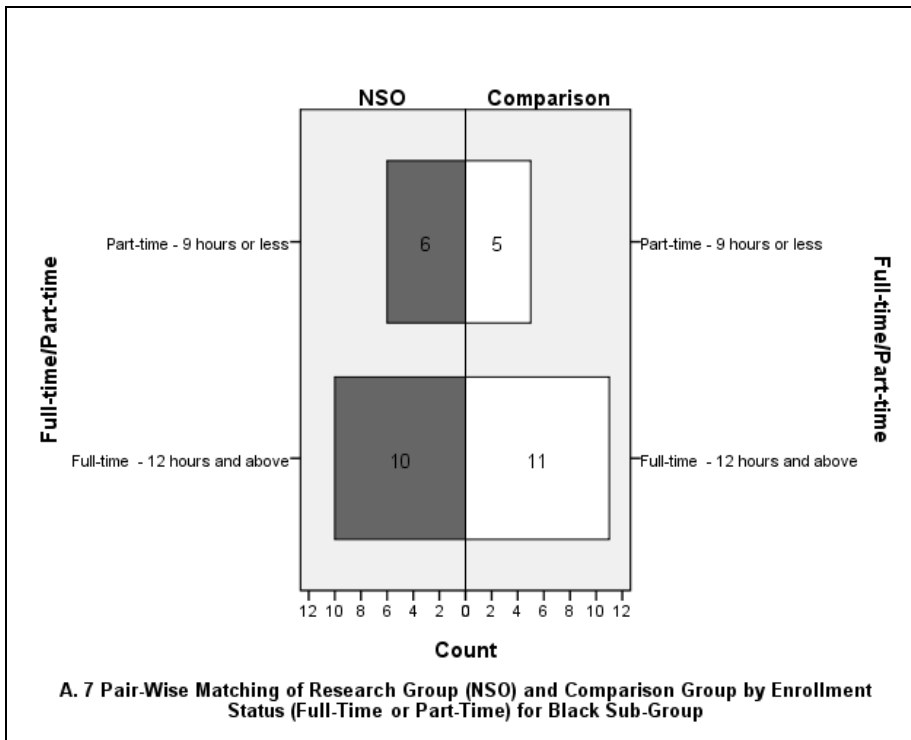
this study provide student service professionals with knowledge and statistical data to assist them in designing, developing, and implementing programs to address student retention and academic success at the beginning of the freshman year. Further, research findings from this study provide foundational information specific to minority student populations in a community college setting.

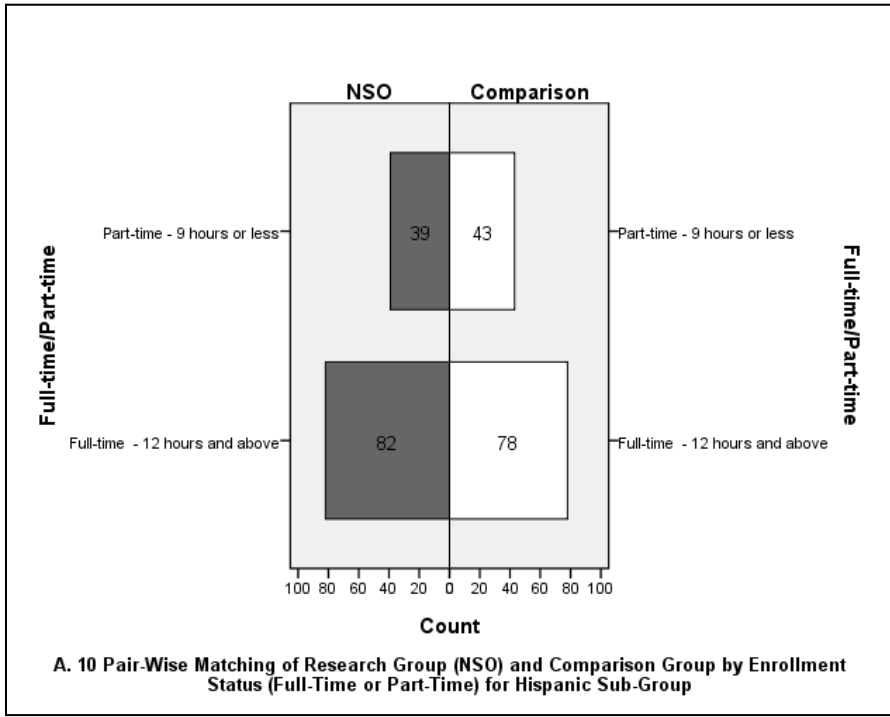
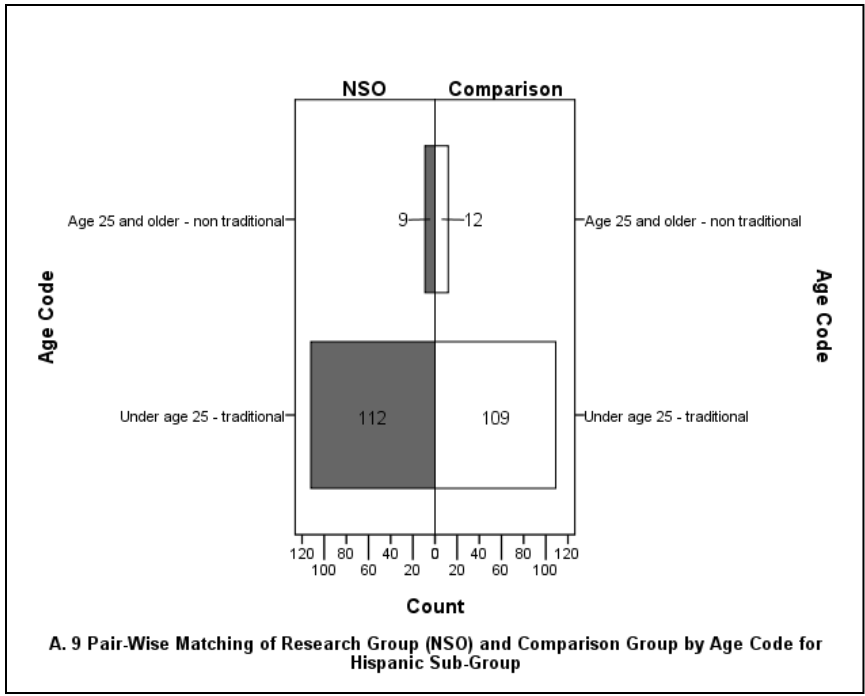
APPENDIX
RESEARCH AND COMPARISON GROUP POPULATION PYRAMIDS
BY TOTAL GROUP AND ETHNIC SUB-GROUPS











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