NORTH CAROLINA COMMUNITY COLLEGES PROVIDE FOR LATINO STUDENT SUCCESS

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DEDICATION

This dissertation is dedicated to my Mother who is my inspiration for doing all things I think I cannot possibly do. My Mother taught me that life is long, and now is never too late. I also dedicate this to my husband, John, and my two daughters, Carrie and Amy, who encouraged me through the years and tolerated me through the wonderful and not so wonderful times.

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ABSTRACT

NORTH CAROLINA COMMUNITY COLLEGES PROVIDE FOR LATINO STUDENT SUCCESS

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The purpose of this study was to describe implemented and planned Latino student success activities in North Carolina community colleges and to examine variations in these activities based on the degree of Latino settlement in the college service area. This study was designed to answer the following research questions: (1) What Latino student success provisions, programs, and processes have been implemented in North Carolina community colleges? (2) What Latino student success provisions, programs, and processes have been planned in North Carolina community colleges? and (3) Are there variations among North Carolina community colleges' Latino student success provisions, programs, and processes based on the degree of Latino settlement in the college service area? Leaders from 44 North Carolina community colleges, representing a variety of institutional areas, participated in this descriptive, quantitative research, conducted through electronic surveys. The survey sample was identified by recommendations from chief academic officers serving North Carolina community colleges. Participants were recommended based on their knowledge of implemented and planned Latino student success activities at their institutions. The response rate for the survey was 75.9%. The most frequently reported implemented Latino student success

activities were from the areas of academic and student services. These activities were related to providing welcoming and safe campuses for Latinos, making an overt commitment to global diversity in institutional goals, listening to Latinos to determine their needs, and encouraging Latinos to be active on campus. The least reported Latino student success activity was using Spanish portals of communication for recruiting Latino students. The most reported planned activities for Latino student success were increasing Latino student recruiting, increasing recruiting of diverse staff and faculty, increasing awareness of Latinos as an asset to the campus, making an overt commitment to Latino student success, and faculty workshops on Latino student success strategies. The least reported planned activities were a campus news service in Spanish, translation/interpretation services, faculty-student mentoring for Latino students, a Latino college readiness program, and advertising in Spanish. Three Latino density measures were identified and used in the study to determine if variations in Latino student success activities were related to the degree of Latino settlement density in the college service area. The density measures were: percent of Latino population in the college service area, perceived significance of Latinos in the college service area, and percent of Latino settlement change since 1990. Overall study findings did not support settlement density as a key force for implementing or planning of Latino student success activities in North Carolina community colleges.

CHAPTER ONE: INTRODUCTION

Unless higher education takes steps to provide opportunities and academic success interventions for Latino students, North Carolina risks developing an underserved and uneducated subclass of residents. The President's Advisory Commission on Educational Excellence for Hispanic Americans (2002) stated if Americans continued on their present course, "one out of every three Hispanic students will be left without a basic high school education, no prospects for college, and every likelihood of a life of poverty" (p. 27). The growing Latino population is changing demographics throughout the United States. Passel and Cohn (2008) speculated the Latino population will triple in size between 2005 and 2050, becoming 29% of the total population in the United States. North Carolina has experienced a 394% growth in Latino population over the last decade (Kochhar, Suro, & Tafoya, 2005), which represents 27.5% of the state's population growth (Karsarda & Johnson, 2006). Opportunities for Latinos in higher education will be paramount to North Carolina's future.

In the last decade, demographers reported a dramatic shift in ethnic statistics, especially in southeastern states, that has led to educational challenges and changes. Kochhar et al. (2005) studied the emerging Latino populations focusing on North Carolina, Alabama, Arkansas, Georgia, South Carolina, and Tennessee. They found that Latino population growth in these southeastern states had surpassed national Latino population growth averages from 1990 to 2000, and predicted continued Latino population growth into the 21st century. Such shifts can cause changes in economics, politics, and education.

Latinos are a diverse ethnic group, and trying to describe the Latino population is challenging. The terms “Latino” and “Hispanic” are used interchangeably to describe an ethnic group that refers to persons who trace their origins or descent to Mexico, Puerto Rico, Cuba, Central America, Latin America, South America, and other Spanish cultures (Office of Management and Budget, 1997). For this study, Latino was used unless referring to a specific study or in a direct quotation that used the descriptor Hispanic.

Demographic Background

Latino Demographics in the United States

Traditionally, states bordering Mexico have had large Latino populations. Until 1848, when the treaty of Guadalupe Hildago ended the Mexican American War, much of the territory in states now bordering Mexico, was part of Mexican territory. Texas was annexed to the United States in 1845, and conditions of ending the Mexican American conflict included transfer of 525,000 square miles of northern Mexican territory to the United States. The ceded territory included land now in California, Arizona, Nevada, Utah, New Mexico, and Wyoming (Meyer & Sherman, 1979). With histories derived from Mexican heritage, as well as close proximity to the Mexican border, these states’ populations logically contain high numbers of Latino residents.

Breaking a long tradition of migration to southwestern states, Latinos are now immigrating and migrating to states without close proximity, or historical connections to Mexico. Kochhar et al. (2005) suggested the increase in Latino populations in new settlement areas was just beginning to impact southeastern communities. They predicted that as increasing numbers of Latinos migrated and settled in southeastern communities,

their presence would have a profound effect on primary, secondary, and higher education.

Traditionally, community colleges, more so than other institutions of higher learning, have reflected the ethnic makeup of their service areas (Cohen & Brawer, 2003). Thus when regional demographics shift, responsive changes are expected in the community colleges that serve the changing region. Cohen and Brawer (2003) recognized the power of changing demography stating that the American community college had experienced many shifts in educational focus over the years, and that some shifts were attributed to changes in leadership at the state and institutional level, but most were due to "changing demography and public perception of institutional purposes" (p. 31).

Demographic Shifts in North Carolina

Kasarda and Johnson (2006) reported a 394% increase of Latinos in North Carolina between 1990 and 2000, and many communities in North Carolina indicated higher growth statistics than the state growth average. For example, in 2004, Mecklenburg, Wake, Forsyth, and Durham counties were the resident counties of 33% of North Carolina's Hispanic population: 12.8% (Mecklenburg), 9.8% (Wake), 5.6%, (Forsyth), and 4.8% (Durham). The impact of the rapid growth of the Latino population is now manifesting in public policy, economic policy, and most importantly, education (Kochhar et al., 2005).

The effects of this rapid growth are highly visible in kindergarten through 12th-grade public education. The influx of Spanish-speaking immigrants is changing the face of education in North Carolina. North Carolina ranks highest among southern states as

the home of the most non-English speakers and Limited English Proficiency (LEP) residents (Schmid, 2003). In Alamance County before 1990, English as a Second Language programs were non-existent in schools. In nearby Guilford County, the number of students with limited English skills tripled between the years of 1995 and 2000 (Schmid, 2003). During the 2006-2007 school term, Mecklenburg County reported 9,000 of the 13,307 students in its LEP Program were Spanish speakers (Charlotte–Mecklenburg Board of Education, 2006). In Durham County, as of 2006, the Latino kindergarten enrollment in the Durham City Schools was 25%, with the total district reporting 15% Latino students (Cortina, n.d.). In 1997, Siler City, North Carolina, reported nearly 50% of kindergarten students were native Spanish speakers; by 2003, this number had grown to 60% (Bailey, 2005). Although the greatest enrollment changes are occurring at the elementary level, Latino public school enrollments are growing in many school systems at all levels. In terms of future planning, the students enrolled at the secondary level are only a few years away from being college–eligible and many are currently eligible for the Early College Program, a blend of high school and college that allows students to simultaneously earn a high school diploma and an associate's degree (The Early College High School Initiative, 2007).

In 2005, approximately 3,000 Latino students graduated from North Carolina public high schools. By 2015, the estimated number of Latino high school graduates will be more than 11,000, representing an increase of 300% (Western Interstate Commission for Higher Education, 2008). Regarding the future of community college education, Cohen and Brawer (2003) stated:

> Projecting the future for the community colleges of the early twenty-first century involves projecting the future for the nation in general: its demographics, economy, and public attitudes. The demographics are apparent; population trends are predictable and the potential college students are in the lower schools, but the number who will attend community college is uncertain. (p. 403)

The dramatic growth of the Latino population in southeastern states, in particular, has created an important ethnic group. Elementary, secondary, and higher education will be impacted by the shift in North Carolina demographics. Administrators and educational strategic planning committees need to acknowledge shifts in demographics and begin addressing access and needs of Latino students in higher education.

Higher Education Opportunity and the Community College

A decade ago, Edmund J. Gleazer, Jr. (1998), President Emeritus of the American Association of Community Colleges, stated that a viable understanding of the community college meant knowing the people in the service region of the institution. To Gleazer, the region's people were the most important influence on defining a college's operation, its programs of learning, and the nature and locale of its facilities. He stressed putting higher education opportunity within the reach of the majority of people:

> Community colleges should reach out. Go out to unserved people. Give priority to those who need the education they did not get at an earlier age. Serve the students with roots in the community. Give those who need it a second chance. Bring people into the mainstream. (p. 7)

Gleazer also suggested institutions give priority to people "whose educational opportunities are limited by a variety of circumstances" (p. 8). Gleazer's community

college vision served as a perspective for examining North Carolina's Latino population and their need for higher education.

George R. Boggs (2006), President and Chief Executive Officer of the American Association of Community Colleges, noted the continuing success of the community college through changing landscapes of demography, workforce needs, societal needs, and business needs of the global economy could be credited to the fundamental community college mission which has remained unchanged. He stated:

> Community colleges continue to offer open, affordable access to higher education regardless of the vagaries of the economy; provide comprehensive services that benefit not just the individual student but also whole communities; and foremost maintain an unswerving commitment to teaching and learning. (p.vii)

This is to say that regardless of economic issues, what the community college does has been guided by the priorities of the mission, as well as the needs of people and businesses of the school's service area. The open access admissions policy that Boggs advocates ensures that community colleges offer education to all segments of society.

The open access policy of community colleges had its historical roots in federal legislation of the 19th century. The Morrill Act of 1862 allowed the United States government to donate land to states for the purpose of constructing institutions of higher education. This legislation resulted in the creation of the nation's land grant colleges and universities. The new land grant institutions were dedicated to delivering higher education that focused primarily on practical skills and knowledge in agricultural and mechanical arts. The Second Morrill Act of 1890 posited an expansion and clarification

of the original legislation of the Morrill Act of 1862. This legislation required states that had created institutions under the Morrill Act of 1862, to admit students without using race as an admission criterion, or to create separate, but equal, institutions for students of color. This legislation enforced the American ideal that education is good for individuals and society, regardless of the student's race or circumstances and ultimately resulted in the creation of the historically black colleges and universities in the United States.

Just as the Morrill Acts expanded higher education and expanded open access as a mission priority, the community college mission to provide higher education opportunity for all adults was defined by the federal government. President Harry Truman created a commission to study higher education and its role in the post-World War II United States. The commission report, *Higher Education for American Democracy: Establishing the Goals* (President's Commission on Higher Education, 1947), defined the social role of education as the provider of "equal liberty and equal opportunity to differing individuals and groups" (p. 5). The report declared education to be the foundation of democracy. To achieve equal educational opportunity, the commission recommended a network of 2-year public institutions that would be available to all regardless of birth circumstances, and concurrently it recommended the availability of public financial assistance for students who could not afford to pay tuition. Though organized in the community, the institutions were to be part of the state university system. The commission described the community college mission commitment to the geographical service region; outlined a vision of the community college as a cultural, intellectual, and social center for the geographic service area; and expanded the concept of who should receive higher education.

Job markets are changing, and in recent years the number of low-skilled jobs has decreased and the number of jobs requiring higher education has increased (Vaughan, 2006). Vaughan stated, “If people continue to reach adulthood without the education needed for 21st century jobs, unemployment among unskilled workers will rise, contributing to poverty and unrest” (p. 10). Beyond the consequences of not having workplace skills, Vaughan also connected education to the vitality of the nation’s political, economic, and social health. In other words, Vaughan came to the same conclusion as The President’s Commission on Higher Education for American Democracy of 1947 that education was essential for a strong nation, and only by educating people to their maximum potential could a democracy survive and thrive.

Benefits of Higher Education

Many jobs in the current economy require training and education beyond high school and without educational opportunities and success interventions, many Latinos will be unprepared for the 21st century workplace (Vaughan, 2006; Wainer, 2006). The growing number of Latinos being born in and migrating to North Carolina will need education, specifically higher education, to successfully reach their maximum potentials. Wainer (2006) concluded that:

> If the educational environment for Latinos in new communities does not improve, they [Latinos] will take their place in new communities as a permanent labouring class that is not expected to go to college, wield political power, or enter “white collar” professions. (p. 159)

Wainer (2006) echoed the President’s Advisory Commission on Educational Excellence for Hispanic Americans (2002) that reported:

> If the gap in educational achievement is ignored for another generation, the result will be millions of Hispanics relegated to a minimum-wage and low-skilled existence that is likely to condemn their children to an upbringing of poverty and risk. (p. 21)

Wainer recognized the growing gap in educational achievement for Latinos, as compared to other ethnic groups, and projected a grim future for this ethnic group if education did not take steps to acknowledge the Latino population growth trend and act to improve educational opportunities for Latinos.

Education has benefits beyond job requirements and impacts both individuals and society as a whole. Education can provide a valid path to increased social and economic levels, thus helping individuals overcome poverty and poor social conditions (Cohen & Brawer, 2003; Lowell & Suro, 2002; Swail, 2000; Swail, Cabrera, Lee, & Williams, 2005a, 2005b). The likelihood of living below the poverty level decreases with educational achievement and the benefits of higher education are both short-term and long-term for individuals and society. Individual benefits include: enjoyment of learning experiences, participation in cultural and social events, and enhancement of social status. Long-term benefits include: increased earning potential, increased volunteerism, less dependence on social services, higher voting rates, and greater civic involvement. A societal benefit of education is higher expectations and attainment for future generations (Swail, Redd, & Perna, 2003); thus, the educational level of the parent leaves a legacy for the next generation of children. Higher education for a parent can provide a catalyst to break the cycle of poverty and low achievement for a future

generation, just as lack of education provides the inertia to continue poverty and low achievement cycles.

Tangible and immediate benefits of higher education include opportunities in the job market. In 2002, the reported mean earnings for workers 25 years old and older with less than a ninth grade education was approximately $20,000 per year; whereas, mean earnings for workers with associate degrees were reported to be $36,000 per year (Day & Newburger). The benefits of higher education were best summarized by the report *Closing the Gaps* (The Texas Higher Education Coordinating Board, 2003). The report asserted, “Education at its best, also allows individuals to do what they want to do, rather than what they have to do and it opens their minds to better understanding the world around them” (p. 4). In other words, education can give workers mobility in the job market for higher earnings and for more enjoyable and challenging occupations.

Latinos and the Community College

Higher education is the primary means of social and economic growth, and research has shown the community college is the first step to higher education for most Latino students (Kurlaender, 2006; Swail, Cabrera, & Lee, 2004). Open access, affordability, flexibility, and location attract Latino students to community college campuses (Kurlaender, 2006; Martinez & Fernandez, 2004; Ornelas & Solorzano, 2004; Swail et al., 2005b). The North Carolina Community College System has a network of 58 community colleges located throughout the state. The focus of the community college system is articulated in their mission:

> The mission of the North Carolina Community College System is to open the door to high-quality, accessible educational opportunities that minimize barriers

to post-secondary education, maximize student success, develop a globally and multi-culturally competent workforce and improve the lives and well-being of individuals by providing:

- Education, training, and retraining for the workforce, including basic skills and literacy education, occupational and pre-baccalaureate programs.
- Support for economic development through services to and in partnership with business and industry an in collaboration with the University of North Carolina System and private colleges and universities.
- Services to communities and individuals which improve the quality of life.

  (North Carolina Community College System, 2008d, System Mission, para. 1)

With this mission and the research supporting that community colleges are the higher education institution of choice for most Latinos (Kurlaender, 2006; Swail et al., 2004), it follows that describing the activities to promote Latino success in these institutions is a topic of interest. This study will address Latino student success activities for North Carolina community colleges and examine variations in these activities based on the degree of Latino settlement in the college service area.

Research Problem

Gap in the Current Literature

Literature and research have established the following tenets: (1) the community college promises open access, and responsiveness to community building and

community needs; (2) in North Carolina the Latino population growth has exceeded and will continue to exceed national Latino population growth averages, thereby changing the service area demographics of many North Carolina community colleges; (3) a new 21st century work force has evolved from a market of low-skilled opportunities to a market requiring postsecondary skills; and (4) Latino students most often attend community colleges as a first step to higher education. Research also maintained that attracting students to the community college was only a first step, and enrolling students inherently came with the responsibility of helping them succeed (Engstrom & Tinto, 2008; Vaughan, 2006). Many studies have identified factors influencing Latino student success (Cabrera & La Nasa, 2000, 2001; Cejda & Rhodes, 2004; Gandara, 2005; Garcia, 2001; Martinez & Fernandez, 2004; McConnell, 2000; Nevarez, 2001; Slavin & Calderon, 2001; Swail et al., 2003; Swail et al., 2005b). Some of these factors are in the social and cognitive realm students bring with them to college, but many are institutional factors for student success, over which individual institutions have a degree of control.

Santiago (2006) reported an immediate need for attention to Latino educational achievement in higher education from policy makers, practitioners, media, philanthropists, corporate funders, and other stakeholders. Similarly, Martinez and Fernandez (2004) concluded that since the majority of Latinos enter higher education at the community college, this trend should trigger a demand for research on “the status of Latinos in community colleges, as well as practices and policies that affect them” (p. 52). In this state, the North Carolina Community College System Environmental Scanning Forum (2005a) addressed Latino settlement in North Carolina and the need for higher education in today’s society. Much of the cited research of this forum included

information from *The State of the South Report 2004: Fifty Years after Brown v. Board of Education* (MDC, Inc., 2004). Strategic planners for the North Carolina Community College System used the information gathered in the scanning forum to kick off strategic planning for North Carolina institutions for 2007-2009 and to develop future objectives for Latino students in the system. The need for research on Latinos and their success in higher education has been documented and is relevant and important to policy makers and college leaders.

In 2005, the College Board held a conference intended to be a first step into national discussion about demographic changes and U.S. education. The conference was attended by policy experts, higher education faculty, enrollment personnel, researchers, and demographers who addressed shifting U.S. demographics and the implications this shift would have for education over the next 15 years. The attendees concluded that now was the time for trustees, presidents, deans, faculty, and other administrators to do serious strategic planning at the institutional level regarding access, opportunity, and success for Latino students. The resulting publication also emphasized that the American public should be made aware of what a changing ethnic demography could mean to the economic well being of the nation now and in the future. Conference participants synthesized an assessment for institutions that included the following questions:

- Are there any curricular changes that should be considered?
- Is our faculty prepared to teach students who have different academic and personal backgrounds from current students?
- If more “at-risk” students are anticipated, are there any changes that might ensure college completion?

- Does the campus (particularly the faculty and administrators) resemble in any way the composition of the future?
- Does the institution want to intentionally target new groups of students or will it simply adapt to changes as they occur?
- What are the financial resources (including financial aid) necessary to meet the institutions enrollment goals? (College Board, 2005, p. 8)

Changing demographic patterns and the effects of demographic shifts have been well documented (Bailey, 2005; Bryant, 2004; Cortina, n.d.; Estrada, 2009; Kasarda & Johnson, 2006; Kochhar et al., 2005; Wainer, 2006). Studies have shown Latinos are now settling in areas away from those states with proximity to Mexico, especially in the southeastern United States, and researchers have referred to southeastern states as "The New Latino South" (Kochhar et al., 2005; Wainer, 2006). Research has described Latino settlement patterns in specific areas of North Carolina including Charlotte, Greensboro, Winston-Salem, and Raleigh-Durham (Bailey, 2005; Cortina, n.d.), and has documented the economic impact of Latinos in North Carolina (Kasarda & Johnson, 2006). Research has explored Latino students in higher education and their interaction with community colleges (Gutierrez, Casteñeda, & Katsinas, 2002; Hagedorn, Chi, Cepeda, & McLain, 2007; Kurlaender, 2006; Swail et al., 2004); however, much of the literature relevant to institutional factors for Latino success in higher education originated in community colleges or 4-year institutions in the southwestern states, states with a long history of Latino settlement.

In 2002, the North Carolina Community College System received a grant from the Reynolds Z. Smith Foundation to establish a Hispanic/Latino initiative in the system.

The purpose of this initiative was to develop policies and strategies to serve the needs of the future North Carolina workforce, to increase the training programs available to the Hispanic community, and to establish linkage to the Hispanic community beyond the community college (North Carolina Community College System, 2005b). The report resulting from this grant stated, “To be successful, colleges must have a better understanding of the challenges Hispanic/Latinos are facing when attempting to enroll in our institutions” (North Carolina Community College System, 2005b, Emerging Role Models in North Carolina Section, para. 3). Although the report gave some insight into what several North Carolina community colleges were doing to enhance Latino involvement with education, it was not a collective state-wide study.

Although some literature has addressed North Carolina and the impact of Latinos on schools and the economy (Bailey, 2005; Cortina, n.d.; Kasarda & Johnson, 2006), the deficiency in current literature is what North Carolina community colleges are doing to provide for Latino student success, currently and in the future, and exploring if variations in Latino student success activities are related to Latino settlement density in college service areas. The demographics of North Carolina have shifted dramatically in the last decade as a result of increasing Latino migration and immigration to North Carolina. Because one of the community college mission priorities is to respond to the needs of the people in its service area (Gleazer, 1998), the exigency to know what North Carolina community colleges are doing to promote Latino student success in higher education is critical.

Purpose of the Study and Research Questions

The purpose of this study was to describe implemented and planned Latino

student success activities in North Carolina community colleges and to examine variations in these activities based on the degree of Latino settlement density in the college service areas. The following research questions guided the study:

1. What Latino student success provisions, programs, and processes have been implemented in North Carolina community colleges?
2. What Latino student success provisions, programs, and processes are planned in North Carolina community colleges?
3. Are there variations among North Carolina community colleges' Latino student success provisions, programs, and processes based on the degree of Latino settlement in the college service area?

Significance of Study

This study is meant to benefit North Carolina community colleges. Demographics have changed resulting in a Latino population that will need expanded opportunities for success in higher education. Because the community college is the first step to higher education for most Latino students, community colleges have a responsibility to respond with changes, policies, and practices that encourage Latino student success. Sharing information from an assessment of current activities and future plans can help other colleges formulate strategies to provide for Latino student success. The information collected and analyzed in this study can serve as a resource for policy makers and practitioners in North Carolina institutions planning for Latino student success, as well as provide information to other state systems experiencing similar demographic shifts.

Successful management of postsecondary institutions requires leaders to adapt to real world changes. Systematic research and data sharing could encourage strategic planning for developing trends because to achieve success, “leaders need effective methods for connecting research and planning to decision making” (Goho & Webb, 2003, p. 378). Nair and Bennett (2007) affirmed that research data should be the underpinning of all institutional improvement, and further, Mellow, Van Slyck, and Eynon (2003) maintained that awareness of diversity should shape all aspects of the institution. In other words, research and knowledge can be a powerful tool for making sound decisions in strategic planning, particularly when addressing changes that result from notable shifts in the demographics of a school’s service area.

The ethnic composition of a service area tends to be reflected in the student populations, especially in community colleges (Cohen & Brawer, 2003). Cohen and Brawer also argued that community colleges were never satisfied with what has been done before and were constantly seeking improved approaches to old and new problems. Institutional planners will continue to face challenges concerning the number and types of students who enroll and the specific needs of these students. This study will identify how colleges are addressing demographic changes, and will allow sharing of this information for future planning.

Definition of Terms

Community college. A 2-year degree granting institution headed by a chancellor or president, single or multi-campus sometimes referred to as a junior college or technical college (Tschechtelin, 1994).

College service area. Specific geographical areas assigned to all North Carolina community colleges (North Carolina Community College System, 2007a).

First-generation college students. Students whose parents have no postsecondary educational experience (Vaughan, 2006).

Latino and Hispanic. Interchangeable terms to describe an ethnic group which refers to persons who trace their origins or descent to Mexico, Puerto Rico, Cuba, Central America, Latin America, South America, and other Spanish cultures (Office of Management and Budget, 1997).

Limited English Proficiency (LEP). Persons who do not speak English as their primary language and who have limited ability to read, speak, write, or understand English (U.S. Department of Justice, n.d.).

North Carolina community college. A 2-year degree granting institution, single or multi-campus headed by a president or chancellor as established and operated in North Carolina under North Carolina General Statute 115D (State Board of Community Colleges, 2005).

Process. Action or practice that does not take the form of a program.

Program. Arrangement, coursework, or services.

Provision. Groundwork or planning for an action.

Student success. Persistence, or continuance of the step-by-step process of higher education, resulting in achievement of the personal educational objective that motivated the student through the process.

Unauthorized persons. (also called "undocumented") Persons living in the United States who lack U.S. citizenship, permanent residence visas, or temporary permission for long-term residence and work (Passel & Cohn, 2009).

Delimitations

North Carolina community colleges were chosen for this study, although there are demographic changes resulting from Latino immigration and migration throughout the southeastern United States. This study was designed to describe the provisions, programs, and processes implemented and planned to promote Latino student success in North Carolina community colleges, and to examine the variations in activities based on density of Latino settlement. This study made no attempt to evaluate the efficacy or scope of any of the measures to promote Latino student success.

Conceptual Framework

Definition of Student Success

Literature has described the essential need to improve Latino student success and elevate educational attainment for these students (President's Advisory Commission on Educational Excellence for Hispanic Americans, 2002; Santiago, 2006; Wainer, 2006). Defining student success is challenging and multiple interpretations of the term exist. Ewell and Wellman (2007) defined the term as simply "getting students into and through college to a degree or certificate" (p. 2). These credentials are the most common measurements of student success, but for those students not seeking these particular educational outcomes, student success can be achieved through transfer to another institution, or in seeking and achieving a personal educational objective (Swail, 2007). Additionally, success measures traditionally include postsecondary enrollment, scores

on standardized and career specific tests, grade point average, earned credit hours, and course or program completion (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Venezia, Callan, Finney, Kirst, & Usdan, 2005).

Other, more comprehensive, definitions of student success have been developed that include both traditional measures and value-based measures. These measures acknowledge the environmental, personal, and institutional factors that impact and influence the student process and educational outcomes (Astin, 1993; Pascarella & Terenzini, 2005). Similarly, the term has been defined as the advancement and appreciation of human differences, commitment to democratic values, and the ability to work with diverse individuals (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007; Strauss & Volkwein, 2002). Rendon and Jaloma (1995) defined successful students as "transformed students" (p. 12) or those students who had developed self-confidence in their capacity to do college work, who believed in their ability to learn, and who were motivated and excited about learning.

A working definition of student success should also acknowledge the different reasons students pursue higher education. In particular, students may pursue higher educational opportunities to earn an associate's degree, transfer to a 4-year institution, upgrade job skills, or advance personal satisfaction or self-improvement (Ewell & Wellman, 2007; Kuh et al., 2007; Swail, 2007). Kuh et al. (2007) also added that a comprehensive, working definition of college success should include sensitivity to workforce development needs and the reality that the 21st century workplace requires workers to possess higher level skills. This definition suggested that a high school

education was insufficient to meet the demands of the 21st century global economy, and that education beyond high school was necessary.

Multiple student success dimensions explained by theorists and researchers were used to define student success for this study. Elements of student success definitions repeatedly divided into two broad categories: persistence, the step-by-step process of higher education success, and achievement, the outcome of higher education. Enrollment in postsecondary education was the first step in the educational process (Ewell & Wellman, 2007), and advancement, a process that relied on reenrollment, followed (Ewell & Wellman, 2007; Rendon & Jaloma, 1995; Swail et al., 2003; Venezia et al., 2005). The second component of student success was educational outcomes, achievement, or attainment of the educational objective that motivated persistence through the college process (Astin, 1993; Ewell & Wellman, 2007; Kuh et al., 2007; Pascarella & Terenzini, 2005). Achievement was also linked with workplace skills needed in the 21st century global economy (Kuh et al., 2007). Educational objectives vary from specific credentials to self-satisfaction and were determined by the individual's educational objective.

Persistence described the component of student success that kept students working toward a desired educational objective, and achievement was the component that described accomplishing the educational objective. The two components, persistence and achievement, were equally important. Using these key concepts, student success in higher education was defined as student persistence, continuance of the step-by-step process of higher education, resulting in achievement of the personal educational objective that motivated the student through the process.

A Geometric Model of Student Persistence and Achievement

Swail, President of the Educational Policy Institute recognized that higher education achievement was contingent on persistence, and described this relationship as an "inextricable relationship" (Swail et al., 2003, p. 75). In dissertation research, Swail (1995) developed a conceptual framework to increase student retention in science, engineering, and mathematics in higher education. Using a 2-round Delphi design, Swail (1995) created a model of student retention which placed the student in the center of the college experience. Paramount to student success was the arrangement of a representative triangular model on a foundation of institutional forces. These forces could be purposely focused by institutions to foster student persistence and achievement.

The model was an equilateral triangle with sides representing the social, cognitive, and institutional factors influencing student success in higher education. Social factors included aspects of a student's college experience such as financial issues, educational experience of parents, attitudes toward learning, maturity, social coping skills, interpersonal relationships with others, cultural values, expectations, commitment to goals, influence of peers and family, and social lifestyle. Academic skills, aptitude, technology ability, critical thinking ability, and college preparation formed cognitive elements that students bring with them to higher education. Institutional factors included financial aid, student services, recruitment and admissions, academic services, and student services.

This same model was used to depict student persistence and achievement in higher education in a later publication. In this later publication, the figure was renamed from "Factors Related to Student Persistence and Performance" (Swail, 1995, Appendix

C, p. 3) to "Forces acting on the geometric model of student persistence and achievement" (Swail et al., 2003, p. 77). Figure 1 illustrates the geometric model of student persistence and achievement.

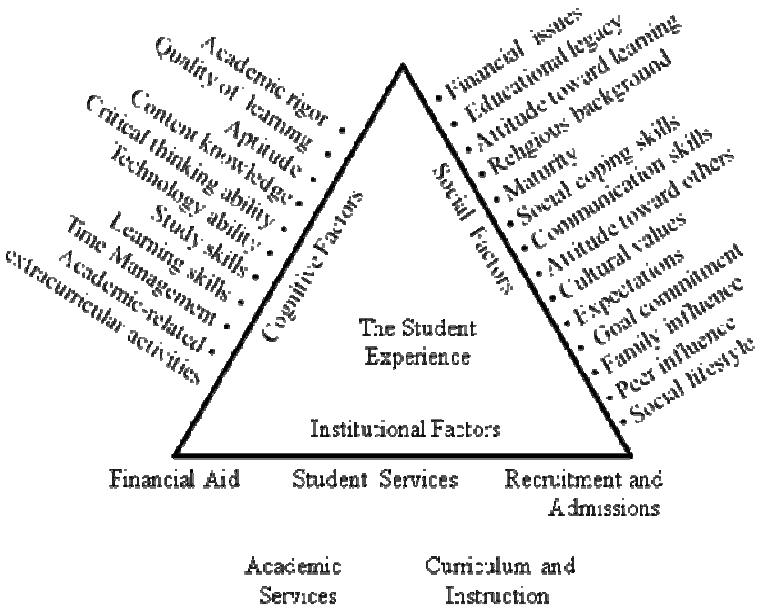

Figure 1. Forces acting on the geometric model of student persistence and achievement. From Swail, W. S., Redd, K. E., and Perna, L. W. (2003). *Retaining minority students in higher education: A framework for success* (p. 77). San Francisco: Jossey-Bass.

Application of the Model to Practice

The base of the triangle could be viewed as a flexible set of conditions that might be molded to meet diverse needs and attributes of individual students. The three forces, institutional, social, and academic, combined to provide a "solid foundation for student growth, development, and persistence" (Swail et al., 2003, p. ix). The purpose of the model was to examine the academic and social attributes students bring with them to higher education, and to focus on the institution's role in student persistence and

achievement in higher education. The ultimate questions were, “What can institutions do to help each student get through college?” (p. 76) and “How can institutions help integrate students academically and socially into campus, as well as support their cognitive and social development?” (p.76). When viewing the Latino college experience through the frame of this model, it becomes evident that institutions can have an impact in determining the success or failure of these students.

Providing for Student Success

Institutions do not have influence over the cognitive and social factors students bring to higher education. What institutions can control are the institutional factors leading to student success that form the base of the student persistence and achievement triangle: financial aid, student services, recruitment and admissions, academic services, and curriculum and instruction. Social, cognitive, and institutional factors of student success for Latino students have been studied and well documented (Cejda & Rhodes, 2004; Dozier, 2001; Gandara, 1994; Garcia, 2001; Hagedorn et al., 2007; Martinez & Fernandez, 2004). Some of the factors leading to student success are unique to Latino students such as cultural values, and others, such as educational experience of parents, are common to all first-generation college students.

A key concept in the comprehensive picture of education is institutional planning. Essential to the planning process is the assessment of student needs, the collection of data regarding student populations, and the analysis of these data for strategic planning and implementation of changes. Only by increasing understanding of student needs can institutions begin to plan and implement programs and support services to meet student needs. The geometric model of student persistence and

achievement provided a framework for understanding the balance of student-owned resources and institutionally-controlled resources. Collection of specific data provided insight into the factors colleges have put in place to promote Latino student success and also into the strategies institutions were planning to implement to promote success in higher education for the emerging Latino population.

Study Summary

Chapter One presented an overview of the study, the research problem, the research questions, literature deficiencies, and introduced the conceptual framework for the study. Chapter Two will present a review of current literature impacting the research problem and expand the conceptual framework of the study. Chapter Three will present a detailed description of the study methodology and the preparation of the data for analysis. Chapter Four will present the study findings. Finally, Chapter Five will present the study interpretations, conclusions, recommendations, and reflections.

CHAPTER TWO: LITERATURE REVIEW

North Carolina demographics have shifted in the last decade, and the importance of meeting the higher educational needs of an evolving population is growing. This chapter will present an overview of changing demographics in North Carolina attributed to immigration and migration of Latinos to this state, along with characteristics of the North Carolina Latino population, and the impact the Latino population has had on communities in this state. In addition, studies on the importance of higher education will clarify the significance of educating all segments of the population and will examine where and how Latinos seek higher education.

The geometric model of student persistence and achievement and the framework for minority student success (Swail et al., 2003) gave insight into providing for Latino student success. Elements of the framework for minority student success are introduced and explained. Institutional foci and recommendations were collected from colleges and universities that have focused on Latino student success. Activities, recommendations, and policies are presented and related to the geometric model, to areas of institutional forces, and to the framework for minority student success.

Latino Settlement Patterns

Latinos in the United States

Acquiring Mexican territory and recruiting workers from Latin American countries has resulted in a significant Latino population residing the United States. In the mid-1800s the United States began acquiring lands that had previously belonged to Mexican territory. Many Spanish–speakers became United States residents during this era. Beginning in the mid-1800s, United States industrialization led businesses to look to

Latin America, and the Caribbean for workers, thus beginning the Latino immigration trend catalyzed by the availability of jobs in the United States (Kanellos, 2009). This need for workers drove Latino immigration in the 21st century.

Although originally drafted as a response to the shortage of workers created by World War II, the Braceros Program lasted from 1942 to 1964 (Official Bracero Agreement, 1942). Under this agreement, large numbers of Mexican men were issued temporary work visas which allowed them to work in agricultural settings in the United States (Goerman, 2006). Latino immigration between 1964 and 1985 was described as "circular immigration," and characterized by finite working periods in the United States, returns to Mexico, then reentry to the United States when opportunities for work arose (Massey, Durand, & Malone, 2002). Circular migration patterns continued until 1986 when federal legislation brought an end to relatively free movement across the border from Mexico to the United States.

The Immigration Reform and Control Act of 1986 was designed to decrease the flow of workers from Latin America by penalizing employers who hired workers that could not show acceptable United States work documentation. This legislation also promised amnesty and a pathway to citizenship for certain workers already residing in the United States. The employer restrictions of the legislation were never effective, as employers had to require documentation from workers, but they did not have to validate the authenticity of the documents. However, the amnesty provision created almost two million legalized Spanish–speaking residents in the United States. During the same time period, several federal initiatives attempted to control crossings from Mexico to the United States at high volume cross areas such as El Paso, San Diego, and Laredo. Rather

than stemming the flow of undocumented immigrants from Mexico and other Latin American countries, the intervention caused border crossings to shift to other points of entry. The heightened security at the Mexican–United States border restricted patterns of cyclic immigration across borders by making the return trip from Mexico to the U.S. more expensive and more dangerous than in previous decades. Immigrants could no longer return to Mexico and other Latin American countries between periods of employment; thus, they began remaining and settling as permanent residents in the United States (Schmid, 2003). The growing Latino population began to have a noticeable presence in many communities, and the increasingly visible presence of Latinos triggered the negative immigration legislation of the 1990s. The Illegal Immigration Reform and Immigrant Responsibility Act of 1996 attempted to block access for undocumented immigrants to a number of social services, education, and public assistance programs. Other measures included more localized English only legislation and growing hostility resulting from increasing competition for jobs (Schmid, 2003).

Family reunification drove immigration policy in the United States, and by the year 2000, 51% of U.S. immigrants were from Latin America (Goerman, 2006; Wahl, 2007). Where shifts in demographics were occurring in both urban and rural settings, there were corresponding economic, social, and educational shifts. Economies may have been revived by boosts in sales of housing and goods; however, local economics reported being threatened by the influx of immigrant workers, many of whom allegedly were willing to work for lower wages than existing residents (Bailey, 2005; Cortina, n.d.; Frey & Kao-Lee, 2005; Griffith, 2006; Kandel & Parrado, 2005; Mather & Pollard,

2007; Wahl, 2007). To many Latinos, job conditions viewed by others as undesirable, represented much more favorable working conditions than those available in their countries of origin (Goerman, 2006).

Although many businesses have reported a growing dependence on Latino workers, hostility against immigrants has risen in the last two decades (Wahl, 2007). In response to collapsing job markets, a characteristic of the early part of this decade, and the growing visibility of the Latino population, Bailey (2005) reported, "The tensions [between Latino newcomers and non-Latino residents of long standing] were more pronounced in rural areas and small towns, where the job market was tighter and the economy less diverse" (2005, p. 72). That is to say, in areas where the job market became smaller and job opportunities opened to greater competition, tensions grew and native-born residents sometimes responded to increasing Latino immigration with increasing unease and hostility.

Today, "immigration" has come to be the characteristic most commonly associated with Latinos (Suro, 2009). Many Americans perceive all Latinos are undocumented immigrants, even though this perception is erroneous. In truth, only 4 of 10 Latinos were born outside of the United States, and 75% of Latinos were born in the United States to foreign–born parents and are U.S. citizens. Even though this is true, many Latinos perceive more discrimination now than in years past (Suro, 2009). Suro attributed this "exacerbated discrimination" (p. 159) to the heightened public awareness of the Latino presence resulting from heavily publicized political rhetoric and debate on state and national immigration policy and reform. In a 2008 study with over 2,000 Latino participants, two thirds of the Latinos surveyed reported their situation had

worsened in the last year. Some participants reported difficulties in obtaining housing and/or maintaining employment for reasons related to ethnicity rather than to immigration status. Additionally, 1 in 10 respondents indicated they had been asked to show proof of legal residence to law enforcement officers based on ethnicity (Lopez & Minushkin, 2008).

Less than 50 years ago, “minority” in the United States signified the African American population. Today most minority individuals are Latino (Gandara, 2005). The term minority is out-dated and carries overtones and political meanings (Boulard, 2005). In addition, the term minority has lost its meaning completely in areas where African Americans or Latinos outnumber Caucasians. According to Pollard and Mather (2008), 10 % of U.S. counties have become “minority-majority” counties or counties where Caucasian residents no longer comprise 50% of the county’s residents. In just two future generations, projections have shown that the United States will have a Latino population, second only to that of Mexico (Suarez-Orozco & Paez, 2002). Suarez-Orozco and Paez (2002) stated,

> Indeed the future of the United States will be in no small measure linked to the fortunes of a heterogeneous blend of relatively recent arrivals from Asia, from the Caribbean, from other parts of the world, and above all from Latin America. (p. 1)

Future economic stability and vitality will be related to the opportunities and successes of U.S. immigrants and in particular, the immigrants from Latin American countries.

Latinos in Southern States

Since 1990, immigrant settlement for both documented and undocumented

immigrants has established a trend of settlement away from states along the Mexican border and, in particular, to southeastern states. Between 1990 and 2000, the 10 U.S. states reporting the highest Latino growth changes for 1990-2000 were: North Carolina, Arkansas, Georgia, Tennessee, Nevada, South Carolina, Alabama, Kentucky, Minnesota, and Nebraska. The states are listed in order of change rate with North Carolina leading the listing with a change rate of 394%, descending to Nebraska with a change rate of 158%. In contrast, the nationwide Latino growth rate change was 58%, for the corresponding period. During this same time period, the comparable growth rate for African Americans in these southeastern states was 21%, and the comparable growth rate for the Caucasian population was 11% (Kochhar et al., 2005).

The Latino population is growing at a higher rate than any other population segment in the United States. The growth rate is steady; even though slower now than in preceding years with an annual growth rate of 3.4% (Estrada, 2009). The Latino population is growing much faster in the southeastern states than in other parts of the nation, and the impact, particularly dramatic in education, is just beginning to be realized in communities experiencing rapid Latino population growth (Kochhar et al., 2005; Wainer, 2006). Wainer focused primarily on education in the southeastern states referring to southeastern states as the “New Latino South” (p.132). He stated Latinos were transforming the “New Latino South,” economically and socially, and he reported that in today’s South, education would be “more important to securing social wellbeing and economic development than it has ever been” (p. 132). The growing importance of education to social wellbeing and economic development parallels the disappearance of low-skilled jobs and the rise of jobs requiring education beyond high school.

Immigrants seek out communities where family and friends from the same country of origin have previously settled, since these niche communities or "ethnic enclaves" (Wahl, 2007, para. 8) offer the availability of helpers to negotiate finding work, housing, and services for new residents. Latino immigrants and migrants from other U.S. areas have favored niche communities because of the readily available "kin and friendship networks, the ability to conduct business and personal affairs in Spanish, the availability of ethnic food products, and the opportunity for leisure activities associated with the Hispanic community" (Goerman, 2006, p. 33). In Greensboro, North Carolina, for example, the immigrant Latino population is largely from Guanajuato, Mexico; whereas, Winston-Salem is home to a growing community of indigenous Mayans from Mexico (Bailey, 2005). As a group, immigrants seek employment first, with other aspects of life coming after settlement and employment (Cortina, n.d.; Griffith, 2006). The advantages offered by a niche community, to Spanish–speaking newcomers, are valuable and may help explain the uneven dispersal of Latino settlements in many southeastern states, particularly in Virginia, Georgia, and North Carolina.

Latinos in North Carolina

Latinos are often studied as an aggregate group; however, each group of Latinos is distinct. Latinos in North Carolina have relocated to this state from three main locations: those moving directly to the state of North Carolina from Mexico and other Latin American countries, those moving from other U.S. jurisdictions, and those born in North Carolina. Mexico is the country of origin for 75% of North Carolina Latinos. Other countries of origin include: El Salvador, Guatemala, Honduras, Nicaragua,

Dominican Republic, Colombia, Peru, Ecuador, and Puerto Rico (Kasarda & Johnson, 2006). Weather devastation caused by recent floods, hurricanes, and tornadoes in Honduras, Guatemala, and El Salvador have increased the numbers of immigrants from these countries who have joined North Carolina immigrants from Mexico, thus producing ethnic diversity within the Latino population as a whole (Griffith, 2006).

Research by Kasarda and Johnson (2006) reported that between 1970 and 2004, the North Carolina Latino population grew from approximately 43,000 to approximately 506,000, signifying a 1066% Latino population growth as compared to a nationwide growth of 355% during the same time period. In 2004, Latinos represented 7% of the North Carolina population. The growth in the Latino population between 1990 and 2004 represented 27.5% of the state population growth and in the years of the school terms 2000-2001 and 2004-2005 Latino student enrollments accounted for 57% of the growth in public schools (Kasarda & Johnson, 2006). The impact of this growth has been evident in North Carolina's economy, society, and education. Rapid Latino population growth in North Carolina, during the 1990 to 2000 decade and continuing into the early years of this decade, was explainable by the "usually robust economy" (Kochhar et al., 2005, p. ii) and the availability of jobs.

North Carolina demographics reflect Latino settlement in areas where jobs were plentiful in the 1990s and early 2000s. Manufacturing, construction, and meat and poultry processing were strong labor markets in the years of soaring Latino population growth; however, no single economic sector can explain the rapid influx of Latinos seeking job opportunities. According to Kochhar et al. (2005), the economic growth took place across many economic venues and "the Latino workforce increased at a rapid

rate just as much in small towns where poultry-packing plants were major employers as in big cities where bank headquarters dominated the skyline" (p. 27). The settlement followed the availability of job opportunities; therefore, the Latino population growth has not been evenly dispersed through the state. Kasarda and Johnson (2006) described the parallel between top growth counties, Mecklenburg, Wake, Durham, Forsyth, and Guilford, and the North Carolina I-40/I-85 corridor. They stated that these five counties accounted for approximately 40% of the total economic impact of Latinos in this state.

Since 2000, the largest Latino net growth has occurred in Mecklenburg County, Wake County, and Forsyth County. Seven other counties recorded relatively high growth statistics for Latino populations: Camden County (87.7%), Union County (69.7%), Cabarrus County (59.2%), Davidson County (55.5%), Gaston County (54.7%), Alamance County (49.7%), and Wake County (49.6%). Settlement of Latinos in Mecklenburg, Forsyth, Wake, and Durham counties accounted for one third of the North Carolina resident Latino population, and there are four rural counties where Latinos account for greater than 10% of the population: Duplin County (18.2%), Sampson County (14.2%), Lee County (13.4%), and Montgomery County (13.3%) (Kasarda & Johnson, 2006).

The Importance of Educating All People

Education and the Workforce

Between 1995 and 2005 North Carolina's workforce grew by 687,579 workers representing a 22.1% increase in the labor force (Kasarda & Johnson, 2006). However, during this time period, traditionally abundant low-skilled jobs were disappearing (Cavanagh, 2004; North Carolina College Community System, 2005a; Vaughan, 2006).

In 2009, 12 of the 20 fastest growing occupations required an associate's degree or higher level of postsecondary education (Bureau of Labor and Statistics). In 2006, most Latinos (55.4%) in North Carolina were between the ages of 18 to 44 years, and educational programs that facilitate their successful entry into the workforce are critical for U.S. economic growth and stability (Kasarda & Johnson, 2006).

The baby boomer generation of the U.S. population has benefited from many legislative decisions and programs, including great expansion in educational opportunities. Reportedly, this generation is the most educated generation in U.S. history. Many baby boomers are now at or nearing retirement age and will be leaving the work force within the next decade, many retiring from jobs that require education beyond high school level (Cortez, 2009). The growing Latino population could serve as a labor pool to fill these positions, but education will be the key that will open the door to this process.

In 2006, demographic growth predictions for the next 30 years suggested the South would be the most populated region in the nation, and would be home to one third of the U.S. population (Lopez, 2006). In the South, 49% of population growth between 2000 and 2040 was projected to result from Latino immigration and migration. Consequently, if educational levels of Latinos do not improve, the disparities between social classes will increase and result in less affluence for all American citizens (Lopez, 2006). For the United States to continue to advance in this century the growing number of Latinos, a population that represents a defining force in the nation's future, will have to progress as this group is the poorest, most alienated, and most undereducated ethnic group in the United States (Cisneros, 2009). Even so, Latinos increasingly view

themselves as having a decisive role in the future of the United States and feel they "represent youthful energy, the hunger for ambition, willingness to work, and family and community striving for a better life" (p. 7).

Cisneros asserted, that Latinos were asking for the United States to keep open the path to middle class status by addressing access to education in public schools and higher education. Research has supported that education was a vehicle for moving up social and economic strata, and that education held great individual potential for breaking cycles of poverty (Cohen & Brawer, 2003; Lowell & Suro, 2002; Swail, 2000). The individual benefits of higher education included enhancement of social status, enjoyable learning experiences, increased participation in cultural and social events, increased volunteerism, less dependence on social services, higher voting rates, and increased civil involvement (Swail et al., 2003). These benefits demonstrated the value of higher education for both individuals and society.

Latinos and the Community College

As Latino residents arrive in North Carolina, their presence will have a considerable effect on primary, secondary, and higher education. Many of the children born to Latino families in the early 1990s, at the onset of soaring Latino population growth in North Carolina, have reached college age or are rapidly approaching high school graduation, yet Latinos remain underrepresented in higher education (Cisneros, 2009; Hernandez, 2006; Miller & Garcia, 2004; Nevarez, 2001). To access higher education, many Latinos enroll at community colleges.

Latino students are more likely to enroll in community colleges than 4-year institutions. In 2006, 35.1% of Latino students began their higher education at

community colleges, as compared to 27.6 % of Caucasian students, and 19.5% of African American students entering community colleges (Kurlaender, 2006). Swail et al. (2004) found slightly different enrollment statistics, reporting a Latino student enrollment in the community college of 40%, as compared to 32.3% of other demographic populations. Latino students were reportedly attracted to community colleges because of low tuition, proximity to home, remedial education, and open admissions policies (Martinez & Fernandez, 2004). Though community colleges provide higher education for the majority of Latino students, substantial barriers to higher education exist for these students.

Motivations and Barriers of Latino Students in Higher Education

Underrepresentation of Latino students among undergraduates and bachelor degree recipients overall cannot be attributed to a lack of interest or a lack of desire to attend college. Financial, cultural, political, and institutional barriers have impeded educational achievement for Latino students as well as issues of college readiness and college access (Perna, 2000). In dissertation research, Hernandez (2006) concluded the following factors contributed to underrepresentation of Latinos in higher education: poverty, level of parental education, father's lack of support for pursuing higher education, lack of college expectation, lack of knowledge in the areas of financial aid and admission processes, lack of experience in a curriculum–driven program, lack of mentoring programs, and lack of participation in college preparatory programs. The factors listed by Hernandez (2006) were common factors to many first-generation college students; whereas, factors unique to Latino students included lower language skills, expectation of family members to go into the work force to support the family

(Gandara, 1994), and political indecision surrounding college policies of admittance and access to higher education (North Carolina Community College System, 2008a).

In a survey of 179 Latino community college students, Santos (2004) found motivation for Latino students seeking higher education included knowledge, self-improvement, job enhancement, increased social status, and improved social life. The most common reason for selecting a particular college was degree choice. Improving social life was the most ambivalent of the motivations, found mostly among male responders. The survey tool was presented in English and Spanish to assure a reliable survey and valid results, eliminating comprehension issues with the survey questions for LEP participants. In a related study, Martinez and Fernandez (2004), who also studied motivation for selecting a particular college, reached a different conclusion and reported tuition, proximity to home, flexible scheduling, availability of developmental education, and open access were the influential factors for students selecting a community college as a first step to higher education.

Financial barriers. A significant impediment to Latino success in higher education was the financial barriers this population must navigate. Over half of the workers in the Latino population were employed in low to moderate income jobs, with half of the Latino population working in the three lowest paid occupations: service, processing/manufacturing, and agriculture (Ramirez, 2009; Wahl, 2007). In addition, higher education statistics documented that Latinos received the lowest average federal aid awards of any racial or ethnic group (Santiago & Cunningham, 2005). With the median income of Latinos residing in the United States estimated in 2005 as approximately as $16,000 annually (Kochhar et al., 2005), financing higher education

was a substantial barrier to higher education.

Cultural barriers. Fidalgo and Chapman-Novakofski (2001) identified several cultural barriers to education that were associated with Latino students. Latino students had a high regard for cooperation and for avoiding embarrassment in the classroom. The study found that in most Latino cultures a spirit of cooperation was expressed by loyalty, friendliness, affection, politeness, dignity, and that respect was of paramount importance. Because Latino students avoid embarrassment and want to be perceived as cooperative and respectful, the likelihood exists that Latinos might not question the instructor for points not clearly understood in the classroom, thus inhibiting students from participating in the process of active inquiry stressed in higher education. Grades are a common higher education assessment tool, yet other researchers noted that Latinos tended to dislike competing with other students for teacher attention and grades, and they demonstrated a preference for collaborative learning situations (Sanchez & Gunawardena, 1998).

An additional cultural barrier was identified by Mellow et al. (2003) as extended family households where crowding and noise could impede a student's ability to focus. Many Latinos live in crowded or substandard conditions that lack adequate space, safety, and security (Ramirez, 2009). Such conditions can make it difficult for students to find a quiet place to study or complete homework assignments.

Family barriers. The importance of family relationships, family traditions and birth order can sometimes be considered impediments to higher education for Latino students. Often the eldest child was expected to help the family financially, thus forcing this child into the workplace rather than into higher education (Gandara, 1994). Also a

family expectation exists in many Latino cultures for children to live at home until they marry, making transfer to distance campuses a difficult family issue. Many Latino students are reluctant to leave their families to transfer and continue their education, even though the separation might be limited to a few years (Brodie, Steffenson, Valdez, Levin, & Suro, 2002).

Preparedness barriers. Lack of college readiness and poor high school preparation were two of the greatest obstacles to Latino student success in higher education. In 1986, the Texas School Dropout Survey (Intercultural Development Research Association, 1986) reported an alarming high school dropout rate, reporting more than half of Latino students who started ninth grade, had not graduated from high school four years later. The risks identified for high school students in Texas were poverty, ethnicity, urban residence, parental education, father's absence, welfare dependency, pregnancy, parenthood, and lack of home ownership. No parallel studies were found for North Carolina or for southeastern states; however, high settlement areas of the South may soon find similar factors identified for Latino students. With fewer students graduating from high school, there was a smaller pool of students who were eligible for higher education. Thus low high school completion rates had a direct impact on the number of students prepared to enter higher education.

Responding to criticism regarding the number of students who were not prepared for college work, Kozeracki (2002) found many 4-year colleges and universities across the nation were exploring policies to shift the entire responsibility for remediation to the community college. In 2005, 59% of Latino students were unqualified for postsecondary education after graduating from high school, although 73% of these students aspired to

attend higher education institutions (Swail et al., 2004). This documented the need for developmental courses among Latinos; yet, the remedial coursework itself was sometimes considered an educational barrier as it delayed graduation and the attainment of goals (Curry, 2004).

Institutional barriers. The barriers institutions created for Latino students were equally as important as the cognitive and social barriers students bring with them to college. In many institutions assessment tests were the sole criteria for placing students into class levels. Placement in developmental courses delayed graduation and became a source of frustration for students, even though unpreparedness made the developmental courses beneficial to the students and essential for student success (Curry, 2004). Because of the importance of standardized assessment tests in positioning students, Latino students often elected to take college certificate programs that did not require placement testing, instead of seeking admission to programs that led to academic degrees (Cejda & Rhodes, 2004).

The college application process can be complicated and frustrating and can create additional barriers for Latino students' entry into higher education. According to Cabrera and La Nasa (2001), three actions had to take place before students could become enrolled in higher education: students had to graduate from high school, students had to have at least minimal college preparedness, and students had to complete the application process. Students who were not able to turn to family and friends for assistance in completing the application and related financial forms often stopped during the application process (Cabrera & La Nasa, 2001). Many Latino students who had academic credentials to attend college, lacked necessary information concerning

admissions, financial aid, employment opportunities, and available resources to navigate the enrollment process (Nevarez, 2001) and thus did not enroll in higher education.

Though many Latino students expressed a desire to earn baccalaureate degrees, other institutional barriers influenced Latino transfer rates from community colleges to baccalaureate-granting institutions. Ornelas and Solorzano (2004) found barriers created by baccalaureate-granting institutions included lack of institutional commitment to the transfer process, lack of transfer information, myths concerning the financial aspects of transferring, and conflicting perceptions of faculty and staff concerning needs of students, had an impact on Latino student transfer rates. Students who were not proactive in seeking information and guidance were not able to transfer from 2-year institutions to 4-year baccalaureate-granting institutions.

The lack of Latino faculty and staff to serve as role models and mentors was an institutional barrier to Latino success in higher education. (Cejda & Rhodes, 2004; Gutierrez, Casteñeda & Katsinas, 2002; Hagedorn et al., 2007) The lack of Latino faculty representation impacted Latino student success, and in the absence of Latino role models on campus, Latino students had more difficulty with social integration and building a sense of belonging necessary for successful completion of educational objectives. Studies by Zirkel (2002) narrowed perspectives on role models by reporting that students who did not have gender- and race-matched role models had lower academic performance and had lower investments in academic achievement, two key elements for student success.

Social integration and building a sense of belonging is difficult for community college students. In general, community colleges do not provide on campus housing for

students and serve student populations that commute to take classes or take classes online. In a study done in North Carolina at Guilford Technical Community College, Abell (2003) found that students that were less involved in campus activities were more likely to be nonreturning students than students who were more integrated into college life. Involvement was defined as interaction with faculty, interchange with other students in study groups, or school clubs. Since Latino students most often attend community colleges as a first step to higher education (Kurlaender, 2006), involvement in campus activities can be more challenging for these students than for students who live on the campuses where they are attending school, thus creating an institutional barrier to success.

Although resident status is beyond the scope of this study, there is merit to mentioning that for undocumented students graduating from North Carolina high schools, access to higher education has continued to be a problem. The current policy of the North Carolina University System is to admit undocumented students as out-of-state students for tuition purposes (The University of North Carolina, 2007); however, at the time of this study, the North Carolina Community College System policy did not permit enrollment of undocumented students in curriculum programs (North Carolina Community College System, 2008a). Some states have policies allowing undocumented students to attend higher education institutions with in-state tuition, and in the past, North Carolina has considered similar legislation. In 2005, House Bill 1183, introduced into the North Carolina General Assembly, would have allowed certain qualifying undocumented residents to enter North Carolina higher education institutions with in-state residency tuition rates. According to doctoral research by Sanders (2006), the

defeat of this bill was due to “changing demographics of the state, the time and context the bill was introduced and media” (p. 72). Specifically, Sanders credited conservative radio talk shows and negative public opinion as the defining factor that led to the defeat of the bill.

A Framework for Student Success

A Framework for Minority Student Success

Swail, President of the Educational Policy Institute, has written extensively on student success and retention of minority students in higher education, focusing in recent years on Latino students (Swail, 2000, 2002, 2004; Swail, Cabrera, Lee, & Williams, 2005a, 2005b; Swail et al., 2003). The geometric model of persistence and achievement was developed in a dissertation study which focused on student success in science, engineering and mathematics (Swail, 1995). The model was renamed, though not altered, in a later publication, *Retaining Minority Students in Higher Education: A Framework for Success* (Swail et al., 2003). As described in Chapter One, the model is based on a triangular paradigm of three forces affecting student persistence and achievement. Social and cognitive factors that students brought with them to higher education formed the sides of the triangle, and institutional factors provided the base of the triangle. Swail et al. described the triangle as somewhat fluid, with angles changing from the equilateral model, depending on strengths and needs of the students. Successful students had managed to achieve a degree of equilibrium between the social and cognitive factors and the institutional forces.

The original dissertation model (Swail, 1995) and the model of student persistence and achievement (Swail et al., 2003) have been changed slightly in some

publications. The 1995 and 2003 triangular base named institutional factors as curriculum and instruction, academic services, student services, financial aid, and recruiting and admissions. In Swail et al. (2005b) the original model was modified and the base of the triangle was renamed institution/systemic and included factors of K-16 coordination, outreach programs, climate and diversity, financial aid, and facilities and services. The model from *Retaining Minority Students in Higher Education: A Framework for Success* (Swail et al., 2003), was used to guide this research on Latino student success. The framework for minority student success provided a blueprint for college administrators to focus institutional forces and foster minority student success. Overall, Swail et al. urged colleges to "get more serious about retention and persistence and move faster to become more diversity friendly." They urged colleges to move from a framework of "access" to a framework of "success" (2003, p. 2).

The base of the triangle, representing institutional forces, related to the college's ability to provide the student with social and academic support. Scheduling flexibility, course content, and the quality of instruction affected the student's ability to persist; whereas, institutional forces also influenced student's academic success by providing mentoring programs, tutoring, and career counseling. The framework put great responsibility on the institution to know and understand the social and cognitive forces pertaining to student experiences in higher education and to adapt the institutional resources with minority student success as the goal (Swail et al., 2003).

The representative figure of the geocentric model of student persistence and achievement (Figure 1) just touched the surface of the framework for success for minority students (Swail et al., 2003). The importance of the framework rested in the

ways the five institutional areas could be focused to foster minority student success. The base of the triangle rested on institutional forces because, according to Swail et al., institutional forces were the foundation for student success. The cognitive and social factors were presented in the model because the more an institution understood what students brought with them and what students needed, the more prepared the institution was to implement support services and programs to meet those needs.

All three forces accounted for the outcomes of the educational process. There were three possible ways the components of social forces, cognitive forces and institutional forces could have an impact on students: positively, negatively, or neutrally. Social factors, for example, could be influenced by the institution to provide positive impacts on the student by providing positive peer interaction through campus activities and associations. Support services could be focused to assure students were making continued progress by having knowledgeable, competent, and proactive advising and monitoring.

In the Swail et al. (2003) framework for student success, curriculum and instruction was “fundamental to student persistence” (p. 103). Review and revision were important components of curriculum and instruction, necessary to minority student success. In the Swail et al. framework, researchers advised that curricula should stay current with workforce needs, and faculty members should deliver educational material in an exciting manner, consistent with learning styles of student populations and with students’ learning preferences. In particular, hands-on and group collaborative approaches and implementation of learning communities had resulted in higher achievement in minority populations. The authors suggested that institutions allocate

resources to the development of new teaching strategies and provide faculty development in delivery of the new strategies to foster persistence and achievement.

The area of academic services in the framework for minority success included six areas: academic advising, research opportunities, supplemental instruction, precollege programs, tutoring and mentoring, and bridging programs. These components provided the infrastructure that contributed to student persistence and achievement. Recommendations included ongoing staff development to insure that academic advising was appropriately aligned with student achievement, and fostering of positive peer mentoring as processes to promote learning. Informal contact with faculty was recommended for building motivation and persistence. In addition, the framework for minority success was explicit in the importance of role models and faculty mentoring programs, and thus advised recruiting and hiring of a diverse staff and faculty for participation in mentoring programs. Readily available and affordable tutoring was also a key component in which academic services influenced positive college outcomes, and precollege readiness programs were recommended with particular emphasis on tutoring in the semester before students begin higher education.

From the area of student services, Swail et al. (2003) stated that social integration with the institution was a factor in students' ability to persist with education. Campus atmosphere was a primary indicator of how the institution perceived its students. Campus climate, they explained, was not an intangible concept that randomly occurred, but it was the development "of beliefs and practices of the administration, faculty, staff, and students belonging to that institution" (p. 107). To develop a positive campus climate, institutions should embrace shared and diverse cultures as an asset to

campus, and promote multiculturalism through programming and activities on campus. Providing a safe campus for all students was paramount to student persistence. Students needed to feel comfortable in their educational surroundings in order to integrate into the campus and persist (Swail et al., 2003). As with faculty interaction with students, Swail et al. (2003) posited that staff should "rub shoulders with students" (p. 110) outside of the confines of classrooms and formal appointments, which could produce lasting effects on student motivation and persistence to achievement.

From the institutional area of recruiting and admissions, Swail et al. (2003) suggested early intervention in identifying prospective students. They suggested monitoring of preadmissions tests to provide a more comprehensive assessment of the cognitive skills students bring to college. Orientation to campus for both students and families was recommended as an activity that fostered persistence. An additional recommendation stated that institutions should ensure that students had adequate communication with families during the education process.

The final financial aid component completed the Swail et al. framework for minority student success. Financial aid was a critical element of higher education persistence, and for minority students, often the determining factor in persistence. Training for financial aid counselors, improving the flow of information about college funding, maximizing opportunities for financial grants rather than loans, and pursuing opportunities for work–study programs to foster success for minority students were recommended practices.

Assessments of Campus Diversity Activities

Hurtado, Griffin, Arellano, and Cuellar (2008) reviewed over 70 campus surveys

designed to measure diversity and campus climate. They found that early efforts to assess campus climates were often instigated by racial incidents; however, more recent college self-assessments had resulted from the colleges' desire for improvements and change based on evidence and research. The researchers focused on how diversity practices were implemented and whether institutions focused on the educational outcomes of these practices.

The review divided assessments into a multidimensional construct which examined structural diversity, psychological climate, and behavioral dimensions of climate. Structural diversity measured items such as diversity related programs and policies on campuses, as well as efforts to recruit diverse students and staff. The researchers cautioned, however, that merely increasing the number of diverse students and staff did not necessarily lead to a more positive racial climate, and historically, increases in numbers had not been a motivating force for changing practices and policies.

Psychological assessments which measured perceived feelings of racial conflict or discrimination on campuses did not always correspond to actual experiences. Moreover, Hurtado et al. (2008) reported that students of color experienced their environment in distinct ways and may have perceived hostility or discrimination that their white peers may not have perceived. The final measurement was surveys that examined behavioral aspects of the institution, including campus environment which addressed campus-facilitated interventions and informal interactions inside and outside of formal classrooms.

Current trends were broader surveys which added items assessing diversity practices, and several of the surveys reviewed in the study had begun to tap into group-specific assessments. However, Hurtado et al. (2008) did not recommend campus-developed surveys as the practice collected only data specific to one institution and could not normally be generalized beyond the campus where the survey was developed and used. Recommendations stated that specific "communities of color" (Hurtado et al., 2008, p. 26) should be explored further:

> In addition to expanding our understanding of the experiences of Black and white students, the continued plight of Native Americans, and the specific problems faced by Asian Americans and Hispanic students in American higher education are worthy of additional emphasis. (p. 26)

In other words, it would be considered a worthwhile effort to explore the college experience for a particular ethnic group.

Institutions that Focus on Latino Student Success

A review of current literature from institutions with Latino student experience and a focus on Latino student success offered insight into activities that colleges were using to promote Latino student success. The review provided information to refine Swail's broader framework of minority student success to reflect Latino student success. *Hispanic Student Success in State Colleges and Universities: Creating Supportive Spaces on Our Campuses* (American Association of State Colleges and Universities, 2007), a study done to determine why some state supported colleges and universities retained and graduated more Latino students than other peer institutions, provided the following institutional characteristics:

- These campuses were overt and intentional with their commitment to Latino student success, making the commitment visible in mission, strategic plans, and public communications.
- These institutions were committed to maintaining evident connections between their campuses and Latino students and their families through early-recruitment programs, activities involving Latino families on campus, and community service programming in Latino communities.
- The presidential leadership at these institutions emphasized fostering Latino student success throughout the campus.

Recommendations for Latino student success from institutions in this study included: planning, and publications, listening carefully to Latino students to determine their individual needs and restructuring learning to accommodate all learning styles, evaluating programs and processes continually to determine what modifications were needed, staying proactive in identifying at-risk students and connecting the student to resources, and keeping faculty expectations high for Latino students. Additional recommendations effective in helping students persist and graduate were: having Latino studies coursework, promoting a network of support among Latino students, realizing the importance of having Latino role models on campus as faculty and staff members, recognizing the importance of family by establishing programs to maintain those connections during higher education, providing bilingual materials for families and making families welcome on campus, and providing minority scholarships funded from institutional resources.

Additional literature (College Board, 2008) suggested that institutional initiatives to promote Latino student success should include communication portals in Spanish to recruit students and communicate with Latino families, mentoring programs to help guide students in transitioning to college and provide positive role models, and making students aware of opportunities to become active on campus to foster feelings of satisfaction with and belonging to an institution. Benitez and DeAro (2004) added appreciation for bilingual skills, collecting data on minority student experiences and outcomes, and realizing minority students' experiences represented significant strengths for academic success for Latino students.

The following campus provisions, programs and processes further expanded strategies that foster student success: offering free summer experience immersion programs for prospective Latino students, focusing on freshman experiences in advising and counseling, developing partnerships with local school districts and businesses, and sharing information regarding student success with faculty, staff, and students (Santiago, 2008a, 2008b). Santiago (2008a) stressed the importance of need–based financial aid and interventions to get prospective students to visit campus to learn about higher education opportunities. Miller and Garcia (2004) echoed many of the above characteristics and recommendations, and completed the list of recommendations for promoting Latino student success with personal attention in the classroom setting.

Strategies and recommendations from institutions and researchers that have focused on Latino student success, narrowed from the framework of minority students to a specific ethnic group, were compiled and revised to create a survey to measure what North Carolina community colleges have implemented or have planned for Latino

student success. All attributes and suggestions were examined and categorized as provisions, programs, and processes, and regrouped by institutional area. The specific recommendations, key components, and Latino student success strategies have been summarized in Table 1. Each element from the literature search of Latino student success strategies has been summarized by the theorist, and categorized as a component of institutional forces as defined by the Swail et al. (2003) framework.

Table 1

Strategies for Latino Student Success by Theorists and Institutional Area

Strategy	Theorists						
Curriculum and Instruction	A	B	C	D	E	F	G
Show overt or intentional commitment to Latino student success in mission or mission to serve all students	X	X			X		X
Show overt or intentional commitment to Latino student success in goals and planning	X	X			X	X	X
Leaders promote Latino student success	X				X		X
Provide diversity appreciation courses	X						
Provide Latin American studies	X						
Provide faculty development about Latino students	X	X					
Faculty willingly engage and committed to Latino student success	X						X
Faculty listen to Latino students to determine their needs	X	X					
Evaluate and monitor programs and processes	X	X		X	X	X	
Faculty include students in their social network on campus	X						
Identify and connect students having problems to appropriate resources	X	X	X				
Collect data on diverse students				X	X		
Academic Services							
Provide opportunities to give back to Latino community	X						

Table 1 (continued)

Strategy	Theorists						
	A	B	C	D	E	F	G
Staff listen to Latinos to determine their needs	X						
Staff include Latino students in their social network on campus	X						
Create a distinctive campus environment that supports Latino student success	X				X		
Empower Latinos to serve as peer mentors	X	X					X
Provide tutoring for Latino students	X	X					
Participate in early outreach or college readiness programs		X			X	X	
Avoid segregated campus; Welcome Latinos as asset to campus	X						
Provide faculty-student mentoring		X					X
Provide translation/interpretation		X					
Appreciate bilingual cultural skills				X			
Staff engaged and committed to Latino student success	X						
Campus welcomes diverse students as an asset				X	X		
Provide support for students in LEP or ESL programs							
Student Services							
Latino mutual support community	X	X			X		X
Campus involvement encouraged	X	X			X		

Table 1 (continued)

Strategy	Theorists						
	A	B	C	D	E	F	G
Families and students encouraged to visit campus		X				X	
Help Latino student stay connected to family during education	X						
Student aware of campus activities and ways to get involved	X	X					
Campus is safe place for Latinos to interact	X	X					
Financial Aid							
Provide financial information for Latino college funding	X	X					
Expand financial aid and provide minority scholarships from institutional resources	X					X	
Provide an affordable education message	X		X				
Recruiting and Admissions							
Recruit a critical mass of Latino students	X	X					X
Provide bilingual materials	X						
Realize the importance of role models	X	X					X
Recruit and hire Latino faculty and staff	X						X
Provide Portals in Spanish (Website, radio, marketing, communication and advertising)		X					
Offer greater access than other institutions			X			X	

Note. A = American Association of State Colleges and Universities, (2007). B = College Board, (2008). C = Santiago, (2006). D = Benitez and DeAro, (2004). E = Santiago,

(2008b). F = Santiago, (2008a, 2008b). G = Miller and Garcia, (2004). X = indicates the existence of a Latino success strategy from the theorists.

Chapter Summary

Literature and studies in this chapter have established that since 1990, the Latino population in southeastern states, and specifically in North Carolina, have grown disproportionately in comparison to growth in other areas in the United States. The studies have described the characteristics of this growing population, emphasizing their importance to the labor force, and have focused on the growing number of young Latino children who will soon be of college age. Literature has also explored recent shifts in the U.S. workforce requirements and the educational needs that will be required to prepare future employees. Additionally, research supported the importance of higher education to all populations, including explanations of both the personal and societal benefits that an education provides, as well as the specific educational barriers that exist for Latino higher education students.

Studies have presented evidence that the community college is the higher education entry portal for the majority of Latinos, and these studies suggested the need for research at community colleges to evaluate activities that are associated with Latino student success. Student success was defined and the framework for minority student success (Swail et al., 2003) was explained. From the perspective of the framework for minority student success, the characteristics and recommendations of institutions that have focused on Latino student success were categorized by institutional areas. The practices, activities, and recommendations were then designated as provisions, programs, and processes as defined in the Definition of Terms.

CHAPTER THREE: METHODOLOGY

The purpose of this study was to describe implemented and planned Latino student success activities in North Carolina community colleges and to examine variations in Latino student success activities based on the degree of Latino settlement in the college service area. This study was guided by the following research questions: (1) What Latino student success provisions, programs, and processes have been implemented in North Carolina community colleges? (2) What Latino student success provisions, programs, and processes are planned in North Carolina community colleges? and (3) Are there variations among North Carolina community colleges' Latino student success provisions, programs, and processes based on the degree of Latino settlement in the college service area?

Research Design

This was a descriptive, quantitative study. The study was designed to capture a comprehensive picture of the community college response to the demographic shift in North Carolina resulting from Latino immigration and migration. The research described activities, categorized as provisions, programs, and processes, in practice and in future plans for community colleges. Survey research provided the best venue for measuring data about these behaviors and trends (Creswell, 2003, 2005; Fink, 2003a, 2003b).

Population and Sample

The chief academic officers from each of the 58 North Carolina community colleges were contacted and asked to recommend a study participant, knowledgeable about the institution's practices and planning for Latino student success. The study population was administrators and instructors from community colleges in North

Carolina. The sampling frame was the college administrators and instructors, identified by the chief academic officer from each institution as the most qualified person to respond to the survey. In many instances, the chief academic officers recommended themselves for participation in the study. The sample consisted of respective leaders who completed and submitted the survey.

The Swail et al. (2003) framework of college student success indicated the college has influence over institutional factors: financial aid, student services, recruitment and admissions, academic services, and curriculum and instruction. In many colleges, responsibilities for these areas are in the departments reporting to the chief academic officer. Chief academic officers are knowledgeable about their campuses and in a position of campus leadership to know future strategies and plans. The chief academic officer of a community college holds an important position as the leader and the manager of the academic mission of the institution (McKenney & Cejda, 2000). According to Swail et al. (2003), the chief academic officer is usually the person at the institution who "can bring all the interested parties—students, parents, other campus administrators, faculty and staff—together toward the goal of retention" (p. 122) and thus promote student achievement. Leaders in all 58 North Carolina community colleges were invited to participate in the study, with a goal of having one leader from each college respond to the survey. The desired response rate was 50% or greater, thereby making the actual target sample $n = 29$ or greater. The study sample was the participants who completed and submitted the survey, representing a response rate of 75.9% ($n = 44$).

Instrumentation

Survey Development

As no survey could be found for this study, a survey was developed by the researcher using guidelines from Creswell (2003, 2005), Creswell and Plano Clark (2007), Dillman (2007), Fink (2003a, 2003b), and Fowler (1993) for wording, clarity, structure of the survey questions, and response options. A literature review of research and institutions that focused on Latino student success was performed to collect relevant topics, recommendations, behaviors, and campus characteristics for survey items.

The survey consisted of a series of items regarding institutional activities which were divided into provisions, programs, and processes, currently implemented and in future plans of the college to promote Latino student success. For the purpose of this study, "provisions" were defined as groundwork or preparation for an action; "programs" were defined as arrangements, coursework, or services; and "processes" were defined as actions or practices that do not take the form of a program. These definitions appeared in the survey with appropriate survey items.

Expert Panel Review and Pilot Testing of Survey

After research study approval by the Western Carolina University Institutional Review Board, the survey was reviewed by a panel of experts. The panel consisted of two professors from within the North Carolina university system and two administrators from within the North Carolina community college system. Panel members were asked to review the survey to establish that the survey was relevant to its stated purpose and to establish that each survey item would be interpreted consistently by respondents. Changes to the survey resulted from suggestions by panel members. Specifically,

relevant questions that used the term “Latino” were reworded to the term “globally diverse.” This change was made to avoid Title VI-related barriers (Civil Rights Act, 1964) to honest responses. No other changes to the survey were recommended; however, a concern related to the volatile and political nature of undocumented immigrants and the community college was addressed. Since the concern revolved around the political dynamics of events in the North Carolina community college system which had changed since the inception of the study, the effect of changing policies and the volatile nature of immigration policies were discussed in limitations of the study and were used to guide interpretation of results.

After revisions from the expert panel, the survey was pilot tested with community college chief academic officers in the state of Georgia. Georgia, like North Carolina, has experienced rapid growth of the Latino population in the last decade. Like North Carolina, Latino growth has not been evenly dispersed in the state and similarly, Georgia has some counties reporting higher Latino population growth statistics than the state or national averages (Bohon, MacPherson, & Atiles, 2005; Frey & Kao-Lee, 2005; Kochhar et al., 2005).

Pilot test recipients were asked to participate in a test-retest process to aid in establishing survey reliability. The retest was sent 5 to 10 days after receipt of the completed survey. The period of time between test and retest ranged from 5 to 21 days. For reliability, analysis of the test-retest results focused on unanswered questions, consistent answers to the same questions, and comments made by the participants (Fink, 2009). In addition to the test-retest process, participants in the field test were asked to complete the pilot test evaluation form consisting of questions pertaining to item

comprehension, clarity of instructions, clarity of computer instructions, and suggestions for improving the survey (Fink, 2003b). The survey evaluation form was sent with the first survey test and was retransmitted with the retest survey to participants who did not complete the evaluation with the first survey.

The pilot test survey (see Appendix A) was sent electronically to 19 community college leaders in Georgia. Six leaders completed the test and retest surveys. Four of the six pilot participants completed the survey evaluation in addition to the test and retest surveys. One pilot test respondent wrote, “My institution has an almost non-existent Latino population ... I wanted a question that said, ‘Do you currently have a significant population of Latino students you serve?’” Another pilot test respondent stated, “the questions are too absolute and do not provide the option for a comment.” This respondent also expressed confusion with some of the questions that specifically targeted Latino students, and stated that Latino students were “well-served, along with all students for these support systems.” Another pilot test leader asked that the questions be numbered. In the pilot test survey, no numbers were displayed as the researcher perceived that the nonsequential numbering on questions for future planning items would prove distracting. This respondent also suggested that the definitions accompanying provisions, programs, and processes be refined and placed in the section heading rather than defined and highlighted in each survey section. No other revisions were suggested by the pilot test participants. The definitions of provisions, processes, and programs were revised and presented as a part of the section headings, and the survey items were numbered with an explanation that numbers in certain sections of the survey would not be sequential. An additional open-ended comment opportunity was

added after the survey item that asked if respondents perceived a significant percentage of Latinos in their college service area.

The exact agreement and adjacent category response of test-retest scores were evaluated for each item. The following tables illustrate the results of the pilot test-retest administration. For Likert-type items, percent exact agreement and percent adjacent agreement (one scale point on either side of the original test selection) are reported. For yes/no items, only the percent exact agreement is reported. The test-retest results for currently implemented provisions are presented in Table 2.

Table 2

Percent Agreement for Test-Retest of Current Provision Items (N = 6)

Survey Item	% Exact Agreement	% Adjacent Category[a]
9. Mission commitment	83	
10. Goal commitment	83	
11. Promote Latinos on campus	83	17
12. Welcome Latinos to campus	83	17
16. Campus is supportive environment	100	0
17. Campus is safe environment	83	17
18. Campus empowers student mentors	67	17
13. Faculty engages in Latino strategies	83	17
14. Staff engages in Latino strategies	100	0
15. Campus encourages Latino involvement in activities	83	17

Note. Numbers correspond to the item number used on the study survey.

[a] For yes/no items, percent adjacent is not applicable.

Exact agreement for the current provisions items was high. All Likert-type items were at least 83% exact or adjacent agreement. In most instances when the retest response differed from the test response, the participant chose an adjacent category from the response selection.

Test-retest items for currently implemented programs also had a high test-retest percent exact agreement (83% -100%). Percent agreement for current program items is presented in Table 3.

Table 3

Percent Agreement for Test-Retest of Current Program Items (*N* = 6)

Survey Item	% Exact Agreement
29. Provides faculty development on Latino strategies	100
30. Provides staff development on Latino strategies	100
31. Provides Latino college readiness program	83
32. Provides a mentoring program	100
33. Has a mutual support system	100
34. Helps maintain family connection	83
35. Campus initiative to foster involvement	83
36. Provides Latino freshman experience	100
37. Provides Latino-oriented service learning	100
38. Provides communication portals in Spanish	83
40. Provides Spanish interpretation/translation	83
41. Provides Latino coursework	100
42. Provides diversity appreciation coursework	100
43. Identifies students with problems	83
44. Provides tutoring for ESL	83
45. Hosts Latino cultural event	83
46. Provides Latino financial assistance information	83

Note. The first two items are Likert-type items with 100% exact agreement. All other current program items are yes/no items; therefore, no percent adjacent agreement was reported for current program test-retest items. Numbers correspond to the item number used on the study survey.

One program survey item was a “check all that apply” query regarding portals of communication in Spanish. Six respondents answered the survey item. Among the six respondents, a total of three communication portals were indicated on the survey test. One of the respondents indicated no portals in Spanish on the test survey, but indicated the existence of one portal on the retest.

Current process items consisted of seven Likert-type items and two yes/no survey items. Items numbered 73 and 74 were yes/no questions; therefore, no percent adjacent agreement is provided for these two items. Table 4 presents the results of the currently implemented Latino success processes.

Table 4

Percent Agreement for Test-Retest of Current Process Items (*N* = 6)

Survey Item	% Exact Agreement	% Adjacent Category[a]
63. Faculty listen to Latinos	67	33
64. Staff listen to Latinos	83	17
65. Faculty interact outside of class	50	50
66. Staff interact outside of appointments	33	67
67. Actively recruit Latino students	83	17
69. Actively recruit Latino faculty	83	17
71. Actively recruit Latino staff	83	17
73. Collect diverse student data	50	
74. Encourages Latino family visits	100	

Note. Numbers correspond to the item number used on the study survey.

[a] For yes/no items, percent adjacent is not applicable.

Table 4 shows there were some inconsistent test-retest provision items. The survey item (item # 66) that stated “My staff makes efforts to include Latino students in interactions outside of class and formal appointments” had an exact agreement of 33% and an adjacent agreement of 67%. This survey item was reworded for clarity on the study survey. The reworded staff interaction item omitted the word “class” from the survey study query. The survey item (item # 73) that stated, “My institution collects data on globally diverse student progress aside from campus-wide student progress tracking” had a percent exact agreement of 50%. The reworded data collection item stated, “My institution collects data on globally diverse student progress as a subset of campus-wide student progress tracking” to clarify student tracking.

Many “current” items on the pilot survey branched to items that queried related future plans when respondents answered negatively. A response of no, strongly disagree, or somewhat disagree branched to an inquiry about related future plans; therefore, the number of responses to future planning survey items was dependent on corresponding responses to the inquiries regarding current practices. In the test-retest pilot study, if a respondent changed an answer on retest, the changed response branched to a question not answered on the initial survey, or the changed response eliminated a survey item answered on the previous test. The net effect of this process was to reduce the number of responses for the percent agreement analysis on future planning items. No respondents had test and retest items related to planning ways to encourage Latinos to become active on campus, planning a safe environment, or planning an initiative to raise awareness of Latino students as an asset to campus; therefore, future planning items could not be evaluated for these queries.

Table 5 presents the percent agreement and percent adjacent category for the provisions in future plans. Two questions were yes/no questions regarding commitment to a globally diverse student population. For two items in this section, the one respondent in each case indicated a matching test-retest response; however, on the item regarding planning a Latino promotion and the item regarding planning faculty workshops on Latino student success strategies, the respondent for each item changed the response to an adjacent category on retest.

Table 5

Percent Agreement for Test-Retest of Planned Provision Items

Survey Item	*n*	% Exact Agreement	% Adjacent Category[a]
19. Plans mission commitment	3	67	
20. Plans goal commitment	2	50	
21. Plans Latino promotion	1	0	100
23. Plans faculty workshops	1	100	0
24. Plans staff workshops	1	0	100
28. Plans peer mentors	1	100	0

Note. Numbers correspond to the item number used on the study survey.

[a] For yes/no items, percent adjacent is not applicable.

Table 6 presents the results of planned programs from the test-retest process items. There were no Likert-type questions in this survey section; therefore, no percent adjacent agreement is presented. There were two instances where the participants chose not to answer the planning questions, and there were three mismatched responses on planned programs arising from changed answers to the corresponding current survey

items. Fifteen of the 16 planned program items had 100% agreement. The item, “My institution is developing programs to assist Latino students in maintaining connection to family and community while attending college” had 80% agreement.

Table 6

Percent Agreement for Test-Retest of Planned Program Items

Survey Item	*n*	% Exact agreement
47. Plans faculty development	5	100
48. Plans staff development	5	100
49. Plans college readiness	3	100
50. Plans faculty mentoring	5	100
51. Plans mutual support	5	100
52. Plans connection to family	5	80
53. Plans campus involvement	4	100
54. Plans freshman experience	5	100
55. Plans Latino service learning	5	100
56. Plans translation/interpretation	3	100
57. Developing Latino coursework	6	100
58. Plans diversity appreciation	3	100
59. Plans to identify and refer students having academic problems	1	100
60. Plans to add tutoring for ESL	1	100
61. Plans for a Latino event	3	100
62. Plans financial workshop	3	100

Note. Numbers correspond to the item number used on the study survey.

One program survey item was a “check all that apply” query regarding plans for Spanish portals of communication. Six respondents had the opportunity to respond to this question. No respondents indicated planning for portals of communication in Spanish on the test or retest survey.

The final pilot survey section included planned processes for Latino student success. Table 7 presents the percent agreement for test-retest process items. Two planned process items were yes/no items; therefore, no percent agreement for adjacent categories is presented. Three Likert-type items asked about increasing Latino recruiting in the coming year.

Table 7

Percent Agreement for Test-Retest of Planned Process Items

Survey Item	*n*	% Exact Agreement	% Adjacent Category[a]
75. Planning to collect data on Latino students	2	100	
76. Planning family visit initiative	2	100	
68. Planning to increase Latino student recruiting	6	67	33
69. Planning to increase Latino faculty recruiting	6	83	17
70. Planning to increase Latino staff recruiting	6	100	0

Note. Numbers correspond to the item number used on the study survey.

[a] For yes/no items, percent adjacent is not applicable.

All participants had the opportunity to answer the recruiting items ($N = 6$) as these items were not dependent on responses to the current survey item.

When the final survey was completed (see Appendix B), a blueprint or grid was developed that represented the structure of the survey. First items were grouped as provisions, programs, and processes, and then items were regrouped into institutional areas according to Swail et al. (2003). The grid indicates which items were categorical items, which items were Likert-type items, and which items were "check all that apply" items. Additionally, the grid shows the status of the item as a current or future activity. The Latino student success survey structural grid, presented in Table 8, provides an overview of the structure of the survey and a framework to explain how that data were reported.

Table 8

Latino Student Success Survey Structural Grid

Institutional Area	Provision	Program	Process
Curriculum & Instruction	*13c, 23f*	29c, 41c, 42c, 43c, 47f, 57f, 58f, 59f	*63c,* 73c, 75f
Academic Services	9c, 10c, *11c, 12c, 16c, 18c,* 19f, 20f, *21f, 22f, 26f, 28f*	30c, 31c, 32c, 33c, 36c, 37c, 40c, 44c, 48f, 49f, 50f, 51f, 54f, 55f, 56f, 60f	*64c*
Student Services	*14c, 15c, 17c, 24f, 25f, 27f*	34c, 35c, 45c, 52f, 53f, 61f	*65c, 66c,* 74c, 76f
Financial Aid		46c, 62f	
Recruitment & Admissions		**38c, 39f**	*67c, 68f, 69c, 70f, 71c, 72f*

Note. Italics indicate Likert-type survey questions. No italics indicate yes/no style questions, and bold face type indicates "check all that apply" items. Current activities are designated with "c," and future activities are designated with "f."

Survey Administration and Data Collection

The survey was administered in an electronic format in the spring semester of 2009. Roberts (2004) listed one of the best times to achieve an optimal response rate as January through April, and the survey was sent during this time frame, although data collection extended through mid-May. The survey and introductory information was sent to the college leaders on April 17, 2009. The information that accompanied the link to the survey explained the purpose of the study, the importance of the responses of each individual, and consent and confidentiality for participants (see Appendix C). Respondents were assured of the confidentiality of their participation in the introductory email and again in the text of the actual survey. Results were collected for five subsequent weeks. Nonrespondents were contacted each week during the data gathering period.

Respondents were asked to indicate their position, areas of responsibility, time in the position, time in the institution, and email address. Email addresses were used only to track nonrespondents for reminder emails, and were removed from the data files after the collection process. Completion and submission of the survey indicated consent to participate in the study. Follow-up reminders were sent to nonrespondents to help achieve a minimum response rate of 50%. Although most literature on electronic survey research does not name a definitive minimum response, Creswell (2005) indicated most studies published in educational journals had a reported response rate of 50% or better, hence the benchmark minimum response rate target of 50%. Every effort was made to achieve an optimal response rate: survey timing, multiple contacts, a user friendly survey, assurance of confidentiality, and the offer of shared results.

Both large and small colleges were in the sample. Duplicate student headcounts from curriculum and continuing education were used to determine the number of enrolled college students in the North Carolina system colleges (North Carolina Community College System, 2008e). The responding sample included 23 colleges reporting fewer than 12,000 students (52%), and 21 colleges reporting over 12,000 students (48%).

Participating colleges in this study serve 70 of the 100 North Carolina counties. North Carolina is traditionally divided into three geographic regions: Mountains, Piedmont, and Coastal plain (North Carolina Department of Public Instruction, 2008). Responses from colleges serving the mountain region of North Carolina included 18 of 24 mountain counties (75%); respondents from colleges serving the Piedmont region of North Carolina represented 24 of 35 piedmont counties (68.6%); and respondents from colleges in the Coastal region of North Carolina represented 28 of 41 coastal counties (68.3%).

Data Preparation

Research Questions One and Two

To answer research questions one and two regarding currently implemented and planned activities for Latino student success, frequencies were calculated using the Statistical Package for the Social Sciences software (SPSS). For categorical questions, 95% confidence intervals were calculated. Categorical strategies were then arranged by frequencies from highest to lowest for reporting results.

Research Question Three

College service areas (North Carolina Community College System, 2007a) were

used to answer research question three about variations in implemented activities based on the Latino settlement density in the college service region. For analysis, the survey items were divided into institutional areas: curriculum and instruction, academic services, student services, financial aid, and recruitment and admissions based on the framework for minority student success presented by Swail et al. (2003). Current responses, those addressing implemented Latino student success activities, were used to answer this research question.

To examine variations in Latino student success based on the degree of Latino settlement in the college service area, three independent variables were defined. The first operational definition of degree of Latino settlement density was the percent of Latino population in the college service area. From the Pew Hispanic Center North Carolina county-by-county dataset (2007), the percent of Latino settlement of each North Carolina community college was compiled (see Appendix D) using a straight average for colleges serving more than one county. Quintiles for percent of Latino population in the college service area were computed. To create contrasting groups, the lowest 40% of the distribution (< 4 % of Latino population in the college service area) and the highest 40% of the distribution (5.7% - 21% of Latino population in the college service area) were used for this density variable. A second operational definition of density was the perceived significance of Latinos in the college service area. Respondents answered a yes/no survey item creating a categorical independent variable for degree of Latino settlement density.

The final operational definition used in the data analysis to answer research question three was an independent variable created using the Pew Hispanic Center

dataset information reporting county-by-county percent of Latino settlement change since 1990. Straight averages were used for colleges serving more than one county. The percent change in the college service areas ranged from 36% - 1100%.

On the survey, respondents answered three question types: (1) categorical yes/no items, (2) Likert-type items, and (3) “check all that apply” items. For preparation of the variables for analysis, “check all that apply” items were treated in the same manner as yes/no items. From each of the institutional areas: curriculum and instruction, academic services, student services, and recruiting and admissions, two variables were created. One variable was created from the sum of individual responses to yes/no survey items, and the second variable was created from the sum of Likert-type questions that were rated on a four point scale with the highest numbers representing greater agreement for each summed variable. Mean values for the sample were substituted for missing data points to allow the researcher to use all collected data values, thus preserving the power of the analyses. For the 836 Likert-type responses, there were 6 mean substitutions (.7%). For the 768 categorical responses, there were 14 mean substitutions (1.8%). Summed variables were then converted to standard *z*-scores to form the operational dependent variables for analysis. This allowed responses from different item formats to be used for *t*-tests and bivariate correlations. Correlations were done on each pair of dependent variables (categorical and Likert style summations) for each of the institutional areas, except financial aid, to assure that all dependent variables were unique variables before analysis with the three density measures. There was only one financial aid item; therefore, original responses were used for analyses.

For percent of Latino settlement change since 1990 and Latino student success activities, Pearson's correlation coefficient was used to correlate the density variable, percent of Latino settlement change since 1990, to the Latino student success variables. The relationship of financial aid responses and percent of Latino population in the college service area, and financial aid and perceived significance of Latinos in the college service area were analyzed using Pearson's Chi-Square test of independence. The correlation of percent change in the service area since 1990 and financial aid was analyzed using a point-biserial correlation.

Chapter Summary

Chapter Three has outlined a quantitative, descriptive study design for research describing what provisions, programs, and processes North Carolina community colleges have implemented to provide for Latino student success. The chief academic officer of each of the 58 North Carolina community colleges was invited to participate or to recommend a knowledgeable college leader to participate in the study. The response rate of 75.9% (n = 44), representing both large and small colleges, located in the Mountains, Piedmont, and Coastal areas of North Carolina, helped to complete an accurate picture of providing for Latino student success across North Carolina community colleges. Data were prepared for analyses to answer each research question.

CHAPTER FOUR: RESULTS

The results of the study were organized into sections corresponding with the research questions: (1) What Latino student success provisions, programs, and processes have been implemented in North Carolina community colleges? (2) What Latino student success provisions, programs, and processes are planned in North Carolina community colleges? and (3) Are there variations among North Carolina community colleges' Latino student success provisions, programs, and processes based on the degree of Latino settlement in the college service area? Settlement was defined in three ways; (a) percent Latino settlement density in the college service area, (b) perceived significance of Latinos in the college service area from participant responses, and (c) percent of Latino settlement change since 1990.

The survey provided two opportunities for open-ended comments. The first open-ended comment, located near the beginning of the instrument, followed the survey item regarding the participant's perception of a significant number of Latinos in the college service area. There was no prompt for this item other than "optional comment." The final survey item asked if there was additional information the participants wanted the researcher to know regarding Latinos and their institutions. Participant comments were coded, and themes from the responses are presented at the end of this chapter.

Demographic Profiles

The researcher contacted all 58 chief academic officers from North Carolina community colleges. Of those contacted, 53 leaders recommended themselves or identified another college administrator or instructor as a study participant. From the 53 leaders who acknowledged the request to participate, 9 identified participants did not

submit a survey. The nine nonrespondents included two chief academic officers, six recommended leaders, and one recommended leader who responded, but declined to complete the survey. Forty-four college leaders completed the survey for a response rate of 75.9%. Of those responding, 25% were chief academic officers in their respective institutions. This total included two interim chief academic officers. Other participants, recommended by the institution's chief academic officer, included representatives from continuing education, admissions and recruiting, institutional effectiveness, student services, and library services and planning. Five respondents held positions of leadership in global, community, or international outreach programs. Two respondents were lead Spanish instructors at their institutions.

Areas of responsibility, length of time in current position, and years of service at the institution were collected in the survey. Most respondents had served in their stated position between 1 and 5 years (40.9%). Other responses indicated that 25% of the respondents had been in their positions less than 1 year; 27.3%, 6-10 years; 2.3%, 11-15 years; and 4.5%, longer than 15 years. Participants reported total years of service at their respective institutions: 15.9%, less than 1 year; 27.3%, 1-5 years; 15.9%, 6-10 years; 15.9%, 11-15 years; and 25%, longer than 15 years. Only 7 of the 44 respondents (15.9%) reported serving at their institutions less than 1 year. This indicated that the majority (84.1%, $n = 37$) of the respondents had been at their current institutions for more than 1 year, suggesting a sample of participants with broad knowledgeable about their respective institutions.

Research Question One: Current Latino Student Success Activities

Current Provisions for Latino Student Success

For this study, the term "provisions" was defined as groundwork or planning for an action. Ten survey items measured implemented or current provisions in North Carolina community colleges. Items measured activities related to curriculum and instruction, academic services, and student services in this survey section.

The first survey items solicited information about the school's commitment to a globally diverse student body. All respondents answered the query regarding an overt commitment visible in the mission statement of the college, and 34 respondents (77.3%, 95% CI = 62.8 - 87.3) answered affirmatively. Forty-three respondents answered the survey item regarding an overt commitment to a globally diverse student body evident in institutional goals with 36 affirmative responses (83.7%, 95% CI = 69.7 - 92.2).

Other provision items were Likert-type questions. One item in this section was related to curriculum and instruction. Four provision items addressed academic services, and three items addressed student services. These items asked about support for Latino student success, campus characteristics, and peer mentorship. Results for Likert-type provision items are presented in Table 9.

Table 9

Responses for Current Provisions for Latino Student Success by Institutional Area

Provisions		Strongly disagree		Somewhat disagree		Somewhat agree		Strongly agree	
	N	*n*	%	*n*	%	*n*	%	*n*	%
Curriculum and Instruction									
Faculty engages in Latino success	43	2	4.7	9	20.9	22	51.2	10	23.3
Academic Services									
Leaders promote Latino success	43	6	14.0	6	14.0	23	53.5	8	18.6
Campus welcomes Latino students	44	2	4.5	1	2.3	26	59.1	15	34.1
Campus is a supportive environment for Latinos	44	1	2.3	9	20.5	22	50.0	12	27.3
Campus empowers Latino peer mentors	44	6	13.6	13	29.5	17	38.6	8	18.2
Student Services									
Staff engages in Latino success	43	3	7.0	10	23.3	22	51.2	8	18.6
Campus encourages Latino involvement	43	2	4.7	6	14.0	18	41.9	17	39.5
Campus is a safe environment for Latino students	44	2	4.5	4	9.1	20	45.5	18	40.9

From the institutional area of academic services, Table 9 indicated that by totaling agreement responses (strongly agree and somewhat agree), respondents identified their campuses as welcoming (93.2%) and supportive (77.3%) for Latino students. Respondents also strongly agreed or somewhat agreed that faculty (74.5%) and staff (69.8%) willingly participated in Latino success strategies. The lowest rate of agreement (56.8%) was identified in the academic services item that asked if the campus empowered Latino students to serve as peer mentors.

Current Programs for Latino Student Success

Programs were defined as "arrangements, coursework, or services." Program survey items measured data related to curriculum and instruction, academic services, student services, financial aid, and recruiting. Four of the items measured data regarding curriculum and instruction, and eight survey items measured responses regarding staff development, mentoring, freshman learning experiences, service learning, translation and interpretation services, and tutoring. In the student services area, three survey items queried whether students were able to maintain family connections while going to school, whether campuses encouraged Latinos to become involved in campus activities, and whether the college had hosted a Latino cultural event. One financial aid item asked respondents about information on college funding specific to Latino students. Table 10 summarizes program responses.

Table 10

Responses for Current Programs for Latino Student Success by Institutional Area

Programs	*N*	*n*	% Yes	95% CI
Curriculum and Instruction				
Offers diversity appreciation coursework	43	25	58.1	43.3 – 71.6
Identifies diverse students with problems and connects to resources	42	21	50.0	35.5 – 64.5
Offers coursework in Latin American studies	43	12	27.9	16.6 – 42.8
Offers faculty development on Latino success strategies	44	12	27.3	16.2 – 42.0
Academic Services				
Provides translation or interpretation services	44	24	54.5	40.1 – 68.3
Provides tutoring targeting Latino students	43	20	46.5	32.5 – 61.1
Offers a college readiness program for Latino student success	43	17	39.5	26.3 – 54.4
Offers staff development on Latino success strategies	44	11	25.0	14.4 – 39.6
Has programs fostering Latino mutual support	43	10	23.3	13.0 – 37.9
Provides Latino oriented service learning	44	8	18.2	9.3 – 32.2

Table 10 (continued)

Programs	*N*	*n*	%	95% CI
Academic Services				
Has faculty-student mentoring for Latino students	43	5	11.6	4.61 – 24.9
Provides a Latino freshman learning experience	42	2	4.8	.46 – 16.7
Student Services				
Has hosted Latino cultural event	44	32	72.7	58.0 – 83.7
Has an initiative to encourage campus involvement for Latino students	44	15	34.1	21.8 – 48.9
Supports maintaining family connections	44	9	20.5	10.9 – 34.7
Financial Aid				
Staff has information on special college funding for Latino students	41	26	63.4	48.1 – 76.5
Recruiting and Admission				
Has marketing materials in Spanish	44	20	45.5	31.7 – 59.9
Provides a telephone option in Spanish	44	9	20.5	10.9 – 34.7
Has a website option in Spanish	44	4	9.1	3.0 – 21.7
Has online catalog option in Spanish	44	1	2.3	<.01 – 12.9

Table 10 (continued)

Programs	*N*	*n*	%	95% CI
Has college news service in Spanish	44	1	2.3	<.01 – 12.9
Has advertising in Spanish	44	1	2.3	<.01 – 12.9
Has printed catalog option in Spanish	44	0	0.0	0.0 – 9.6

From the area of curriculum and instruction, 58.1% (*n* = 25, 95% CI = 43.3 – 71.6) of leaders indicated their institutions offered diversity appreciation courses; however, only 27.9% (*n* = 12, 95% CI = 16.6 – 42.8) indicated course offerings in Latin American studies. The number of colleges reporting faculty professional development (27.3%, *n* = 12, 95% CI = 16.2 – 42.0) and staff professional development (25.0%, *n* = 11, 95% CI = 14.4 – 39.6) in Latino success strategies was also under 30%. Regarding financial aid, more than one-half of the reporting schools (63.4%, *n* = 26, 95% CI = 48.1 – 76.5) affirmed that staff had information about college funding targeted to Latino students. From student services, 72.7% (*n* = 32, 95% CI = 58.0 – 83.7) of responding institutions reported having hosted a Latino cultural event on campus. Regarding student recruiting, 45.5% (*n* = 20, 95% CI = 31.7 – 59.9) of the survey responses indicated that colleges had marketing materials in Spanish, and 20.5% (*n* = 9, 95% CI = 10.9 – 34.7) of respondents indicated a telephone option in Spanish existed at their institutions. Other portals of communication in Spanish were considerably less evident for the responding schools.

Current Processes for Latino Student Success

For this study, “process” was defined as an action or practice that does not take

the form of a program. The third section of the survey measured implemented processes that promote Latino student success. Two process items were presented in the instrument as yes/no questions. Respondents were asked if their institutions collected data on globally diverse students as a subset of campus-wide progress tracking, and 55.8% (n = 24, 95% CI = 41.1 – 69.6) answered yes. The other yes/no item related to processes asked respondents if their colleges encouraged Latino family visits to campus before and after enrollment, and 54.8% (n = 23, 95% CI = 39.9 – 68.8) answered yes.

Additional Likert-type survey items pertaining to processes assessed whether respondents believed faculty and staff listened to Latino students to determine their needs, if faculty and staff made efforts to interact with students outside of formal classes and appointments, and if the college was actively recruiting Latino students, faculty, and staff. The results of Likert-type items are presented in Table 11.

Table 11

Responses for Current Processes for Latino Student Success by Institutional Area

Processes		Strongly disagree		Somewhat disagree		Somewhat agree		Strongly agree	
	N	*n*	%	*n*	%	*n*	%	*n*	%
Curriculum and Instruction									
Faculty listen to Latinos to determine their needs	44	1	2.3	6	13.6	24	54.5	13	29.5
Academic Services									
Staff members listen to Latinos to determine their needs	44	1	2.3	7	15.9	24	54.5	12	27.3
Student Services									
Faculty interact with Latinos outside of classroom	43	1	2.3	11	25.6	17	39.5	14	32.6
Staff interact with Latinos outside of formal appointments	43	1	2.3	11	25.6	21	48.8	10	23.3
Recruiting and Admissions									
College actively recruits Latino students	44	10	22.7	16	36.4	12	27.3	6	13.6
College actively recruits Latino faculty	44	5	11.4	16	36.4	12	27.3	11	25.0
College actively recruits Latino staff	43	7	16.3	17	39.5	11	25.6	8	18.6

Combined responses of strongly agree and somewhat agree indicated that respondents generally believe both faculty (84.0%) and staff (81.8%) listen to Latinos to determine their needs. The survey results also showed combined agreement responses of 72.1% for both faculty and staff, documenting that both interact with Latinos on campus outside of classes and formal appointments. Of the 44 respondents, 40.9% (n = 18) indicated agreement for active recruiting of Latino students. Combined agreement responses to active recruitment of Latino faculty members and active recruitment of Latino staff members were slightly higher than combined agreement responses for student recruiting, with 52.3% combined agreement for Latino faculty recruitment and 44.2% combined agreement for Latino staff recruitment at the responding institutions.

The results of the survey presented in this section have indicated current effort of North Carolina community colleges to promote Latino student success. Many survey items in this section branched to corresponding planning items when participants responded with no, strongly disagree, or somewhat disagree. Planned activity responses are summarized in the next section.

Research Question Two: Planned Latino Student Success Activities

Planned Provisions for Latino Student Success

Ten survey items measured information about planned provisions in curriculum and instruction, academic services, and student services. One yes/no survey item asked about student success planning for a globally diverse student body, as stated in the college mission, and the other yes/no survey item asked about student success planning for a globally diverse student body, evident in the institutional goals. For the first item regarding commitment in the college mission, 30.0% (n = 3, 95% CI = 10.3 - 60.8) of

respondents indicated yes, and for the item regarding commitment evident in institutional goals, 50.0% (*n* = 5, 95% CI = 23.7 – 76.3) of respondents indicated such planning. Results for Likert-type items related to future planning are presented in Table 12.

Table 12

Responses for Planned Provisions for Latino Student Success by Institutional Area

Provisions		Strongly disagree		Somewhat disagree		Somewhat agree		Strongly agree	
	N	*n*	%	*n*	%	*n*	%	*n*	%
Curriculum and Instruction									
Planning faculty workshops on Latino success	12	2	16.7	5	41.7	3	25.0	2	16.7
Academic Services									
Plans promotion of Latino success	13	5	38.5	5	38.5	3	23.1	0	0.0
Plans to increase awareness of Latinos as campus asset	3	1	33.3	1	33.3	1	33.3	0	0.0
Planning to encourage Latino peer mentors	19	7	36.8	10	52.6	2	10.5	0	0.0
Planning a supportive environment for Latino students	10	3	30.0	4	40.0	3	30.0	0	0.0
Student Services									
Planning staff workshops on Latino success	14	5	35.7	5	35.7	2	14.3	2	14.3
Planning ways to encourage Latino involvement	9	4	44.4	4	44.4	1	11.1	0	0.0
Planning a safe environment for Latino students	6	1	16.7	4	66.7	1	16.7	0	0.0

From the institutional area of curriculum and instruction, 41.7% of participants strongly agreed or somewhat agreed that their institutions were planning faculty workshops for Latino success strategies. Regarding staff workshops on Latino student success, 28.6% of participants strongly agreed or somewhat agreed their colleges had future plans for these activities.

From the institutional area of academic services, three college leaders (23.1%) somewhat agreed they were planning a future promotion of Latino students as a campus asset, and one of three respondents selected somewhat agree to having plans for a Latino success initiative. None of the respondents who answered planned academic services items marked strongly agree for these provisions. From the area of student services, none of the respondents selected strongly agree to planning ways to encourage Latino involvement (n = 9) or to planning a safe environment (n = 6) for Latino students on their campuses.

Planned Programs for Latino Student Success

Information regarding programs for Latino student success in curriculum and instruction, academic services, student services, and financial aid were measured with yes/no survey items. All respondents answered the survey item pertaining to plans for future communication portals in Spanish, but other future program items were only administered to those who previously reported no current effort in the corresponding area. The summary of future planning for programs is presented in Table 13.

Table 13

Responses for Planned Programs for Latino Student Success by Institutional Area

Programs	*N*	*n*	% Yes	95% CI
Curriculum and Instruction				
Developing diversity appreciation coursework	17	4	23.5	9.1 – 47.8
Plans to offers faculty development on Latino success strategies	32	6	18.8	8.5 – 35.7
Developing coursework in Latin American studies	30	4	13.3	4.7 – 30.3
Developing program to identify students with problems and connect to resources	21	1	4.8	<.01 – 24.4
Academic Services				
Planning tutoring targeting Latino students	23	5	21.7	9.2 – 42.3
Developing Latino–oriented service learning	40	8	20.0	10.2 –35.0
Planning staff development on Latino success strategies	33	6	18.2	8.2 – 34.8
Planning programs to foster Latino mutual support	33	5	15.2	6.2 – 31.4
Developing a Latino freshman experience	39	3	7.7	1.9 – 21.0
Developing resources for translation or interpretation services	18	1	5.6	<.01 –27.7
Developing a faculty–student mentoring program	38	2	5.3	0.5 – 18.2

Table 13 (continued)

Programs	*N*	*n*	% Yes	95 % CI
Developing a college readiness program for Latino students	26	1	3.8	<.01 – 20.5
Student Services				
Developing programs to support maintaining family connections	35	6	17.1	7.7 – 33.1
Planning an initiative to encourage Latino campus involvement	29	5	17.2	7.1 – 35.0
Planning a Latino cultural event in the coming year	12	0	0.0	0.0 – 28.2
Financial Aid				
Planning workshops to help staff learn information on special college funding for Latino students	15	3	20.0	6.3 – 46.0
Recruiting and Admissions				
Marketing in Spanish	44	13	29.5	18.1 – 44.3
Telephone options in Spanish	44	7	15.9	7.6 – 29.7
Website option in Spanish	44	7	15.9	7.6 – 29.7
Online catalog option in Spanish	44	4	9.1	3.0 – 21.7
News service in Spanish	44	3	6.8	1.7 – 18.9
Printed catalog option in Spanish	44	1	2.3	<.01 – 12.9

Note. Items from recruiting and admissions were administered to all participants.

From curriculum and instruction, 4 of 17 leaders (23.5%, 95% CI = 9.1 – 47.8) indicated their institutions were developing diversity appreciation coursework. Thirty respondents answered the survey items on planning Latin American coursework, and 4 leaders (13.3%, 95% CI = 4.7 – 30.3) indicated that their institutions had plans for Latin American coursework.

In academic services the highest percentage, 21.7%, (*n* = 5, 95% CI = 9.2 – 42.3) of planned activities was the development of tutoring specifically for Latino students. Eight of 40 respondents (20.0%, CI = 10.2 - 35.0) indicated their institutions had future plans for Latino-oriented service learning. Only 1 respondent out of 26, (3.8%, CI = < .01 – 20.5) indicated institutional planning for a college readiness program for Latino students. Of the 44 participants responding, 13 (29.5%, CI = 18.1 – 44.3) indicated their colleges were developing marketing materials in Spanish; however, affirmative responses indicating plans for all other communication portals in Spanish were much lower (< 16%).

Planned Processes for Latino Student Success

The planned processes section was the final assessment for future plans in North Carolina community colleges for Latino student success. These items related to recruiting were administered to all respondents. The summary of the planned recruiting processes is shown in Table 14.

Table 14

Responses for Planned Recruiting Processes for Latino Student Success

		Strongly disagree		Somewhat disagree		Somewhat agree		Strongly agree	
	N	*n*	%	*n*	%	*n*	%	*n*	%
Efforts to recruit Latino students will increase in the coming year	43	8	18.6	14	32.6	14	32.6	7	16.3
Efforts to recruit diverse faculty will increase in the coming year	42	5	11.9	12	28.6	16	38.1	9	21.4
Efforts to recruit diverse staff will increase in the coming year	41	3	7.3	12	29.3	19	46.3	7	17.1

Combined percentages for strongly agree and somewhat agree indicated that 48.9% (*n* = 21) of respondents agreed that recruiting for Latino students would increase in the coming year. Similarly, respondents also agreed that recruiting for globally diverse faculty members (*n* = 25, 59.5%) and globally diverse staff members (*n* = 26, 63.4%) would increase in the coming year.

Two survey process items were yes/no items. Three participants (16.7%, 95% CI = 5.0 – 40.1) answered yes to planning to collect data on diverse students as a subset of campus tracking (item #75), and one participant (5.3%, 95% CI = < .01 – 26.5) answered yes to planning an initiative encouraging Latino families to visit campus (item #76).

Research Question Three: Latino Settlement Density and Variations in Activities

Density Variables

To investigate the relationship of the degree of Latino settlement and Latino student success measures in North Carolina community colleges, the variables described in Chapter Three were used for statistical analysis utilizing SPSS software. The first operational definition of degree of Latino settlement density, an independent variable, was the percent of Latino population in the college service area. Perceived significance of Latinos in the college service area was the second density variable, and the third density variable was percent of Latino settlement change since 1990. Curriculum and instruction, academic services, student services, and recruiting and admissions included items representing summation *z*-scores of categorical data and Likert-type data. The variables for activities were examined for relationships with each density variable. An alpha level of .05 was used for all statistical tests.

Percent of Latino Population and Latino Student Success Activities

Using independent samples *t*-tests, the means of the independent variable groups, high percent of Latino population in the college service area and low percent of Latino population in the college service area, were compared on each of the z-score variables which represented Latino student success activities from four institutional areas. The descriptive statistics for the low and high percent of Latino population in the college service area groups on the categorical and Likert variables of Latino student success activities are presented by institutional area in Table 15.

Table 15

Descriptive Statistics for Percent of Latino Population Groups and Latino Student Success Activities

Latino Student Success Activities	Percent of Latino Population Groups			
	Low (*n* = 16)		High (*n* = 18)	
	M	*SD*	*M*	*SD*
Curriculum and Instruction				
Categorical variable	-.23	.81	.20	1.08
Likert variable	-.17	1.20	.14	.98
Academic Services				
Categorical variable	-.32	.97	.22	1.02
Likert variable	-.36	1.00	.40	.82
Student Services				
Categorical variable	.12	1.01	-.11	.93
Likert variable	-.41	1.16	.31	.93
Recruiting and Admissions				
Categorical variable	.01	.95	.04	.97
Likert variable	-.10	.85	.12	1.05

The means for the low percent of Latino population group were lower than the corresponding means for the high percent of Latino population group on seven of the eight Likert and categorical variables. The only mean score from the low percent of Latino population group that was higher than the corresponding mean score for the high percent of Latino population group was derived from survey items that measured activities such as maintaining family connections, encouraging family visits to campus, hosting a Latino cultural event, and encouraging Latino students to be active on campus.

Table 16 presents a summary of the results of the independent samples *t*-tests, 95% confidence intervals, and the effect size for percent of Latino population groups on each of the activity variables. The results are organized by institutional area.

Table 16

Summary of Percent of Latino Population and Latino Student Success Activities

Latino Student Success Activities	*t*	*df*	*p*	95% CI	*d*
Curriculum and Instruction					
Categorical variable	1.32	32	.195	-.24 – 1.11	.45
Likert variable	.82	32	.418	-.46 – 1.07	.28
Academic Services					
Categorical variable	1.60	32	.120	-.15 – 1.25	.54
Likert variable	2.44*	32	.021	.12 – 1.39	.83
Student Services					
Categorical variable	- .70	32	.491	-.91 – .45	.23
Likert variable	2.01	32	.053	-.01 – 1.45	.68
Recruiting and Admissions					
Categorical variable	.07	32	.943	-.65 – .70	.03
Likert variable	.67	32	.510	-.45 – .89	.23

Note. *p < .05

Only one mean difference was statistically significant, $t(32) = 2.44$, $p = .021$, $d = .83$. This Likert variable, from the area of academic services, was derived from survey items that measured staff willingness to engage in Latino student success strategies, encouraging Latinos to become active on campus, providing a safe campus for Latino students, and interacting with Latinos outside of formal class and appointments. Gravetter and Wallnau (2007) recommended evaluating Cohen's *d*, or effect size, with the following criteria: $d = 0.2$ indicates a small effect; $d = 0.5$ indicates a medium effect;

and $d = 0.8$ indicates a large effect. Using these criteria, only one item, the statistically significant Likert variable from academic services, had an effect size that was evaluated as large.

Perceived Significance of Latino Population and Latino Student Success Activities

Respondents' perception of the significance of the percentage of the Latino population in the college service areas was collected with a yes/no survey item. Of the 44 respondents, 68.2% ($n = 30$, 95% CI = 53.4 – 80.1) answered that they perceived the number of Latinos in their college service area to be significant. Table 17 presents results for perceived significance of Latinos in the college service area groups on Latino student success activities organized by institutional area.

Table 17

Descriptive Statistics for Perceived Significance of Latinos and Latino Student Success Activities

Latino Student Success Activities	Perceived Significance of Latinos			
	Not Significant (n = 14)		Significant (n = 30)	
	M	*SD*	*M*	*SD*
Curriculum and Instruction				
Categorical variable	.18	.92	-.04	1.03
Likert variable	.19	1.12	-.08	.95
Academic Services				
Categorical variable	.07	1.03	-.04	1.00
Likert variable	.23	.93	-.11	1.03
Student Services				
Categorical variable	-.13	1.19	.06	.92
Likert variable	.24	.96	-.11	1.01
Recruiting and Admissions				
Categorical variable	-.42	.86	.19	1.01
Likert variable	-.19	1.07	.09	.97

Table 17 shows that the means for Latino student success activities for five of the eight variables were lower in the group of respondents who indicated a perception of a significant number of Latinos in the college service area. Higher means for this group of respondents were found on three variables that were derived from survey items regarding portals of communication, recruiting practices, student involvement, maintaining connection to family, and hosting a Latino cultural event.

Table 18 presents a summary of the independent samples *t*-tests, 95% confidence intervals, and effect size for perceived significance of Latinos in the college service area groups on Latino student success activities arranged by institutional areas.

Table 18

Summary of Perceived Significance of Latinos in College Service Area and Latino Student Success Activities

Latino Student Success Activities	*t*	*df*	*p*	95% CI	*d*
Curriculum and Instruction					
Categorical variable	-.69	42	.494	-.87 – .43	.23
Likert variable	-.83	42	.414	-.92 – .39	.26
Academic Services					
Categorical variable	-.32	42	.753	-.76 – .56	.11
Likert variable	-1.03	42	.309	- .99 – .32	.35
Student Services					
Categorical variable	.59	42	.562	-.47 – .85	.18
Likert variable	-1.08	42	.285	-1.00 – .30	.36
Recruiting and Admissions					
Categorical variable	1.95	42	.057	-.02 – 1.24	.65
Likert variable	.86	42	.396	-.38 – .93	.27

Mean differences in the two perceived significance groups were not statistically significant on categorical or Likert-type variables.

Percent of Latino Settlement Change since 1990 and Latino Student Success Activities

Bivariate correlations were used to examine the relationship between the percent of Latino settlement change in the college service area and the summed categorical and Likert-type *z*-score variables. The results of these correlations are presented in Table 19.

Table 19

Correlations for Percent of Latino Settlement Change since 1990 and Latino Student Success Activities (N = 44)

Latino Student Success Activities	r	p	r^2
Curriculum and Instruction			
Categorical variable	.298*	.049	.09
Likert variable	.022	.885	.01
Academic Services			
Categorical variable	.285	.060	.08
Likert variable	.242	.113	.06
Student Services			
Categorical variable	.194	.207	.04
Likert variable	.243	.112	.06
Recruiting and Admissions			
Categorical variable	.296	.051	.09
Likert items	.303*	.046	.09

Note. *p < .05

To evaluate the coefficient of determination, or the proportion of variability in one variable that can be determined from the other variable, Gravetter and Wallnau (2007) suggested the following criteria: r^2 = .01 indicates a small correlation; r^2 = .09 indicates a medium correlation; and r^2 = .25 indicates a large correlation. The categorical variable from curriculum and instruction had a positive and statistically significant correlation to percent of Latino settlement change since 1990, r = .298, p = .049, r^2 = .09. This variable was derived from responses to items that queried such strategies as providing faculty development on Latino student success, providing coursework in Latin American studies, providing diversity appreciation coursework, and identifying globally diverse students with academic problems and connecting these students to campus resources.

The strength of the correlation was medium according the criteria used to evaluate these analyses.

The Likert-type variable from recruiting and admissions was derived from survey questions regarding recruiting of Latino students and recruiting of Latino faculty and staff. The positive correlation of this recruiting and admissions variable with percent of Latino settlement change since 1990 was statistically significant, $r = .303$, $p = .046$, $r^2 = .09$, with medium strength. The categorical variable from recruiting and admissions was related to survey items asking participants to indicate portals of communication in Spanish for their institution. The table shows there was a medium strength, positive correlation between this variable and percent of Latino settlement change since 1990, $r = .296$, $p = .051$, $r^2 = .09$; however, the correlation was not statistically significant.

The categorical variable from academic services had a positive correlation with percent of Latino settlement change since 1990; however, the correlation was not statistically significant, $r = .285$, $p = .06$, $r^2 = .08$. This categorical variable was derived from leadership commitment to a globally diverse student body, college readiness programs, freshman experience programs, translation and interpretation and tutoring targeted to Latino students. Table 19 demonstrates that other variables had positive correlations with percent of Latino settlement change since 1990, though the correlations varied in strength and were not statistically significant.

Financial Aid and Latino Settlement Density

As only one item measured financial aid, the original data were used for analyses with the three measures of density. Table 20 summarizes the results of the analyses for both percent of Latino population and perceived significance of Latinos in the college

service areas and having financial aid information specifically targeted to Latino students.

Table 20

Percent of Latino Population and Perceived Significance of Latinos with Financial Aid

		Financial Aid Information for Latinos		Chi-Square Tests		
		% No	% Yes	Pearson's χ^2	*df*	*p*
Percent of Latino Population	Low density	56.3% (*n* = 9)	43.8% (*n* = 7)	2.84	1	.092
	High density	27.8% (*n* = 5)	72.2% (*n* = 13)			
Perceived Significance	No	42.9% (*n* = 6)	40.0% (*n* = 12)	.032	1	.858
	Yes	57.1% (*n* = 8)	60.0% (*n* = 18)			

Table 20 illustrates that 56.3% of respondents in the low density group (*n* = 9) indicated their institution did not have financial aid information specifically for Latino students. In the high density group, 27.8% of respondents reported having no financial aid information specifically for Latino students. The results confirmed that the variance of financial aid information for Latinos and percent of Latino population are related; however, the relationship of the two variables was not statistically significant at the α = .05 level, $\chi^2(1) = .32$, $p = .09$.

From the group of respondents who answered yes to perceived significance of Latinos in the college service area, 60.0% (*n* = 18) indicated their institution had financial aid information specifically for Latinos. For the group of respondents who

answered no to the perceived significance of Latinos in the college service area, 40.0% indicated their institution had information about financial aid specifically for Latino students. The chi-square tests for perceived significance of Latinos in the college service area and financial aid showed a positive relationship, though not a statistically significant relationship, at the $\alpha = .05$ level.

A point-biserial correlation was used to analyze financial aid information and percent of Latino settlement change since 1990. The analysis showed $r_{pb}(42) = .17$, $p = .28$. Thus, there was no statistically significant relationship between providing financial funding information for Latino students and the percent of Latino settlement change since 1990.

Open-ended Comments

An optional comment section followed the survey question regarding the respondent's perception of the significance of Latinos in the college service area. The final survey item asked, "Is there anything else you would like me to know about Latinos in your institution?" Collectively there were 36 open-ended comments on the 44 surveys. There was little difference in the nature of the comments made at the beginning of the survey and at the conclusion of the survey. The comments were combined for analysis, and four themes emerged.

Respondents most often commented on colleges serving the needs of the people in the college service area. Twelve of the 36 comments (33.3%) addressed this topic. Two respondents noted that the Latino population was not singled out in programs and services, and another respondent stated, "Our college is responsive to needs of all students … [programs] are not provided exclusively for Latino students." Eight

comments (22.2%) specifically mentioned how the individual colleges were meeting the needs of Latinos and/or minority students. One respondent described the college's minority mentoring program, and another respondent wrote about the minority recruiter position in the college. Another participant explained that in order to provide for the service area population, the institution offered some vocational classes in Spanish and Adult Basic Education courses in Spanish. Providing day care for English as Second Language (ESL) students was mentioned. Finally several respondents mentioned Hispanic/Latino initiatives and outreach programs to illustrate how institutions were meeting the needs of their service area.

Another topic repeatedly addressed in open-ended comments was the recognition of demographic change in the college service area. Comments such as, "Latinos are probably the fastest growing segment of our student population in terms of percentages" and, "Over the last decade the Latino population has increased tremendously" document the recognition of demographic change. Nine of 36 respondents (25%) noted demographic shifts and/or the growing Latino population. Within this theme, two respondents noted the change in the nature of the Latino population to a more stable and established group than in decades past. One participant stated that Latinos were building local churches and stores, thus documenting a settlement trend toward more permanent communities than in the past, and another leader noted the Latino population had "changed from a seasonal farming-based group to a more permanent and diverse population." Four respondents mentioned variations in the density of Latino settlement in different counties served by the same community college, noting one county of the

college service area had experienced higher Latino population growth than other counties in the service area.

The third emerging theme addressed barriers to higher education for Latino students. Nine respondents (25%) mentioned the North Carolina Community College System ban on curriculum admissions for unauthorized students or the fact that very few Latinos were enrolled in curriculum programs. Two respondents linked the policy of not admitting unauthorized students to curriculum programs to the current volatile, political atmosphere for Latinos. One leader wrote that elected county commissioners were not particularly "supportive or welcoming to Latinos," and another respondent wrote, "The scare with the media and illegals in the community prevents some [Latinos] from coming to ESL classes."

The fourth and final theme in the open-ended documents revolved around what Latino students were taking at the community college. Five respondents (13.9%) commented on where in the community college Latinos were taking classes. Two leaders stated most of the Latino students were in continuing education, and one respondent mentioned Early College. Three leaders (8.3%) mentioned Latinos and their ESL programs. To summarize, the themes of the open-ended comments were: (1) serving the needs of the college service area, (2) demographics are changing and the Latino population is growing, (3) political barriers complicate access to higher education for Latinos, and (4) Latinos are participating most often in Adult Continuing Education Programs, ESL classes, and Adult Basic Skills.

Chapter Summary

This chapter presented the analyses from data collected by the survey items for

currently implemented Latino student success activities and planned Latino student success activities. Collected data showed that institutions reported “current” or planned provision activities in the institutional areas of curriculum and instruction, academic services, and student services. Current or planned program items and current or planned process items were indicated in all five institutional areas.

The analyses of the three density measures and the Latino student success activity variables were also presented and discussed. Generally, the mean differences on activity variables for the high and low percent of Latino population groups were not statistically significant. The means of categorical and Likert variables showed the majority of colleges from the high density Latino population group reported more implemented Latino student success activities than colleges in the low density Latino population group. Findings for perceived significance of Latinos in the college service area revealed no statistically significant differences between the two groups; however, the means in the group that perceived no significance of Latinos in the college service area, in general, were higher than the means from the group that indicated a significance of Latinos in the college area. Bivariate correlations between the percent of Latino settlement change since 1990 and the categorical and Likert activity variables showed positive correlations; however, most were not significant at the $\alpha = .05$ level. The relationship of having financial aid information and all three density variables was not statistically significant.

As a result of analysis of the open-ended comments, four themes emerged. The first theme involved serving the needs of the college area. The second theme dealt with Latino settlement and changing demographics in North Carolina. The third theme related

to political access and barriers for Latino students, and the final theme addressed where in the colleges Latinos were taking classes.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

Study Summary

The purpose of this study was to describe implemented and planned Latino student success activities in North Carolina community colleges and to examine variations in Latino student success activities based on the degree of Latino settlement density. This was a quantitative, descriptive study that used an electronic survey to collect information from North Carolina community college leaders. The intent of the research was to delineate the Latino student success strategies implemented and planned in colleges throughout the state, forming a collective, comprehensive description of activities that promote Latino student success in North Carolina community colleges and to explore whether variations in these activities were related to Latino settlement density in the college service areas. The following questions guided this study: (1) What Latino student success provisions, programs, and processes have been implemented in North Carolina community colleges? (2) What Latino student success provisions, programs, and processes are planned in North Carolina community colleges? and (3) Are there variations among North Carolina community colleges' Latino student success provisions, programs, and processes based on the degree of Latino settlement in the college service area?

Research has shown that over the last decade the Latino population in the United States, particularly in areas of the South, has grown, and Latinos now represent a significant ethnic group (Kochhar et al., 2005; Schmid, 2003; Wainer, 2006). Kasarda and Johnson (2006) documented Latino growth rates in North Carolina and found that North Carolina ranks among the highest states in the nation for Latino population

growth rate, and Latinos constitute 7% of North Carolina's population (Kasarda & Johnson, 2006). In 2006, many communities were just beginning to experience the impact of the demographic shift, particularly in education, created by immigration and migration of Latinos into southern communities (Wainer, 2006).

Researchers have advised looking to higher education institutions in states that border Mexico, that traditionally have had high Latino populations, to examine activities that promote Latino student success (Anderson, 2008; Benitez & DeAro, 2004; Santiago, 2006, 2008a, 2008b). Research has also shown that most Latinos are choosing community colleges as a first step to higher education (Kurlaender, 2006; Martinez & Fernandez, 2004); therefore, research was needed to describe what North Carolina community colleges were doing in response to the demographic shift created by the growing Latino population and to examine if there was a relationship between the density of Latino settlement in the college service areas and activities that foster Latino student success.

The sample was created by contacting all 58 chief academic officers in the North Carolina Community College System and asking each leader to a recommend a knowledgeable participant for the study. From the 58 community colleges, 44 participants completed the survey for a response rate of 75.9%. The survey was created using the strategies, institutional attributes, and institutional foci provided by Latino student success research and Hispanic Serving Institutions to form survey questions regarding current and planned Latino student success activities in North Carolina community colleges. The survey was administered and data were collected electronically. The survey data analyses were performed with the aid of SPSS software.

To answer research questions one and two, frequencies and 95% confidence intervals were reported for yes/no survey items. For Likert-type survey items, the number of respondents and frequency in each Likert category were reported. Several different analyses were used to examine variations in Latino student success activities and density measures to answer research question three. Results of the analyses were reported in Chapter Four. The researcher had two basic expectations from the literature review: (1) North Carolina community colleges had planned and implemented Latino student success measures (North Carolina Community College System, 2005b), and (2) shifts in demographics in the college service areas had driven educational change in the community college setting (Cohen & Brawer, 2003; Gleazer, 1998).

Study Interpretation

Research Question One: Current Latino Student Success Activities

The most utilized current Latino student success strategies were assembled by adding the percentages of strongly agree and somewhat agree from Likert-type survey items to form a positive agreement percentage and by using the percentage of participants who answered yes to categorical survey items. As noted in Chapter Four, the “check all that apply” item was treated as a yes/no categorical item. The most reported currently implemented Latino student success activities in North Carolina are presented in Table 21.

Table 21

Current Latino Student Success Strategies with over 80% Agreement

Current Activity	% Agreement	Institutional Area
Institution welcomes Latinos as a campus asset	93.2	Academic Services
Campus is safe place for Latinos	86.4	Student Services
Faculty listen to Latinos to determine needs	84.0	Curriculum & Instruction
College has overt commitment to global diversity in goals	83.7	Academic Services
Staff listen to Latinos to determine their needs	81.8	Academic Services
Campus encourages Latinos to be involved in activities	81.4	Student Services

According to survey respondents, the top strategy implemented in North Carolina community colleges for Latino student success was providing a welcoming campus for Latinos. Over 90% of responding colleges (n = 41) indicated agreement with this survey item. Swail et al. (2003) explained that institutions needed to build a welcoming campus and that campuses needed to become more diversity friendly as a first step to promoting minority student success. From the perspective of Latino student success, for institutions to attract Latino students, these students must feel they are welcome at the individual institutions.

The second strategy, with 86.4% of schools indicating agreement, was that the campus was a safe place for Latino students to interact with each other. Hurtado, Griffin, Arellano, and Cuellar (2008) and Swail et al. (2003) both discussed findings that campus climate (interpreted for this study as welcoming, safe, or supportive campuses) directly impacted educational outcomes and student success. Both of the top strategies indicated

North Carolina campuses have implemented provisions to provide a favorable campus climate, or a welcoming and safe campus, where Latino students can achieve success. Swail et al. (2003) stated, “Actively supportive, nondiscriminatory campus environments are associated with greater college satisfaction, adjustment, and persistence” (p. 60), elements related to student success.

The American Association of State Colleges and Universities (2007) recommended that in order to determine the needs of Latino students and provide for student success, faculty and staff should listen to these students. North Carolina community colleges indicated this process was in place in their institutions with their responses to the survey items. Respondents indicated 84.0% agreement with faculty listen to Latino students to determine their needs, and 81.8% agreement with staff listen to Latino students to determine their needs.

One additional North Carolina strategy with over 80% agreement was an overt commitment to student success for globally diverse students made visible in institutional goals. When institution leaders make a commitment to student success for a globally diverse student body, they can demonstrate this commitment with policies and practices that create a campus that is welcoming and safe for students (American Association of State Colleges and Universities, 2007; Swail et al., 2003). This can help create student satisfaction with institutions which fosters persistence and achievement.

The final provision in place in North Carolina institutions with 81.4% agreement was that institutions encouraged Latinos to become involved in campus activities. Abell (2003) found that nonreturning community college students were less likely to be involved in campus activities including faculty-student contact outside of class, study

groups with other students, and campus clubs. Students who were involved with their campuses were more satisfied with their educational experience, indicating overall satisfaction with the institution can serve as motivation for student persistence. North Carolina community colleges have prioritized involvement in campus activities as demonstrated by their responses which put this strategy into the list of highest utilized strategies.

Examining the list of top strategies reveals that these strategies are primarily from the institutional areas of academic services and student services. Further, such things as a "welcoming campus" or "safe campus" are characteristics an institution would want to provide for all students. Additionally, these descriptors are challenging to quantify and may have different meanings for different individuals, although most campus leaders would be reluctant to indicate a negative response to such items. Leaders might also hesitate to respond negatively to the inquiry regarding listening to students to determine their needs, as community colleges by definition are guided by legislation and tradition to be responsive to the needs of the people they serve (Cohen & Brawer, 2003; Gleazer, 1998; President's Commission on Higher Education, 1947).

The items in the top strategies are value-based items that are difficult to measure objectively. Because these campus characteristics were value-based and asked about activities that most leaders intuitively feel help students persist, frequencies of agreement to these items may be inflated. Activities in the top strategies are prevalent in the literature that describes ways to promote Latino student success (Anderson, 2008; Benitez & DeAro, 2004; Santiago, 2008a, 2008b); however, admittedly most institutions of higher learning would describe themselves as institutions that welcome all students

and provide a safe campus for all students, and as campuses where faculty and staff personalize determining student needs.

The top strategies are primarily provisions, defined as the groundwork or planning for an action. This indicates that steps are in place in most community colleges for Latino students to be welcomed to campus as part of a globally diverse student body, and that they are encouraged to achieve student success by campus characteristics that increase student satisfaction, persistence, and ultimately achievement. No programming items were in the top implemented Latino student success strategies. This suggests that provisions and processes must be in place first to build a population of students who would take advantage of more specific Latino programming before these strategies can be implemented.

The range of agreement to current Latino student success practices in North Carolina community colleges was 0.0% to 93.2%. There were six survey items that recorded agreement responses of less than 10%. These items are presented in Table 22.

Table 22

Current Latino Student Success Strategies with Less Than 10% Agreement

Current Activity	% Agreement	Institutional Area
Provides website in Spanish	9.1	Recruiting & Admissions
Has Latino freshman experience	4.8	Academic Services
Advertises in Spanish	2.3	Recruiting & Admissions
Has college news service in Spanish	2.3	Recruiting & Admissions
Has online catalog options in Spanish	2.3	Recruiting & Admissions
Has printed catalog options in Spanish	0.0	Recruiting & Admissions

Table 22 shows that most of the low agreement responses were in the institutional area of student recruiting and admissions and were very Latino-specific. To get Latinos to come to the college campus and explore what services are available, advertising must be specific and targeted to this ethnic group; however, with 40% of the college service areas reporting a Latino population of less than 4%, lack of implementation of very specific Latino-targeted activities is not surprising. Latinos are substantially represented (59.8%) in the North Carolina's immigrant population (Zota, 2008), thus portals of communication in Spanish could foster recruiting of Latino students. Low agreement for such portals, however, could be related to admission practices at the time this survey was administered, when nearly one-half of North Carolina's Latino population would not have had appropriate documentation to enroll in curriculum programs (Kasarda & Johnson, 2006).

Low agreement in this area can also be attributed to the wavering policy of the North Carolina Community College System regarding unauthorized immigrants and their admission to curriculum programs. Media coverage of this issue has been abundant, and some policy changes and revisions have been attributed to negative public opinion (Collins, 2009, p. 1A, 12A). In November of 2007, the community college system began admitting illegal immigrants (North Carolina Community College System, 2007b). In response to strong public disapproval of the policy, the system chose to seek legal advice from the North Carolina State Attorney General, Roy Cooper. The following May, based on advice from the Attorney General, the State Board of Community Colleges voted to ban illegal immigrants from curriculum programs (North Carolina Community College System, 2008a). Three months later federal officials

announced that no federal legislation barred admission of undocumented immigrants into curriculum programs. The North Carolina Attorney General then reversed his position on banning undocumented immigrants from admission to curriculum programs. The system commissioned a consulting group to study admission of students who lacked acceptable immigration documentation (North Carolina Community College System, 2008b). Subsequently, the North Carolina State Board of Community Colleges voted to continue the ban pending further study of the issue (North Carolina Community College System, 2008c).

Research conclusions indicated that colleges would profit from admitting undocumented students as out-of-state tuition students (Lee, Frishberg, Shkodriani, Freeman, Maginnis, & Bob, 2009). On September 18, 2009, the North Carolina State Board of Community Colleges recommended that undocumented immigrants be admitted to community colleges as out-of-state tuition students. Strict criteria for admissions stated that students must have graduated from high schools located in the United States, take only classes where no legal resident would be displaced, and enter only curriculum programs where licensure was not prohibited by federal law (Collins, 2009, p. 1A, 12A; North Carolina Community College System, 2009). The history of what has transpired in the last two years regarding undocumented student admissions lends evidence to the speculation that the newest policy may not be permanent.

Research Question Two: Planned Latino Student Success Activities

Swail et al. (2003) said that key concepts in a comprehensive picture of an educational institution included institutional planning. Agreement was determined for research question two in the same manner as in research question one. The range of

agreement scores was 0.0% to 63.4%. In most instances, only those who indicated disagreement with the "current" survey item had the opportunity to answer the future planning item. The highest agreement scores for planning are presented in Table 23.

Table 23

Planned Latino Student Success Strategies with over 30% Agreement

Planned Activity	% Agreement	Institutional Area
Increasing diverse staff recruiting	63.4	Recruiting & Admissions
Increasing diverse faculty recruiting	59.5	Recruiting & Admissions
Planning overt commitment to globally diverse students in goals	50.0	Academic Services
Increasing Latino student recruiting	48.9	Recruiting & Admissions
Planning faculty workshops on Latino success strategies	41.7	Curriculum & Instruction
Planning awareness of Latinos as assets initiative	33.3	Academic Services

Three of the six items in the highest planning items involved faculty, staff, and student recruiting. All survey respondents had the opportunity to answer these questions. Since planning an overt commitment to globally diverse students visible in institutional goals (50%) was a top planning strategy, it is not surprising to find increasing recruiting for diverse staff and faculty in the top planning strategies. From the literature, colleges can help facilitate a campus favorable to Latino student success by increasing globally diverse faculty and staff (American Association of State Colleges and Universities, 2007), as increasing diverse faculty and staff can put role models and mentors for globally diverse students on campus (Cejda & Rhodes, 2004; Gutierrez et al., 2002; Hagedorn et al., 2007; Miller & Garcia, 2004; Zirkel, 2002). Swail et al. (2003)

expanded this concept to state that leadership committed to student success for a diverse student population could focus faculty and staff recruiting, linking these two top strategies of faculty and staff recruiting and commitment to student success of a diverse student population. The top three planning activities were not Latino-specific and queried aspects of an institution committed to a diverse student population. Kasarda and Johnson (2006) reported that 34.7% of Latinos are less than 18 years of age, as compared to 24.8% in the general population. This suggests the presence of a pool of students who will be college age in the near future. Three college leaders indicated their institutions were planning to put commitment to success of a globally diverse student body in their institutional goals.

As with value-based measures, quantifying the strength of "planning" is difficult. Increasing recruiting of diverse students and fostering their success are issues that most leaders would embrace, but it is logical to question how colleges will increase recruiting of Latino students, and what strategies will be used to raise awareness of what colleges offer for this ethnic group. Printing more brochures to be stored in an administrative office will not provide effective Latino student recruiting. Institutions need to be proactive in raising awareness of the services available to help Latino students succeed, and student recruiting is an available venue for this campaign. Since the North Carolina Community College Board recently approved new admissions criteria for undocumented students (North Carolina Community College System, 2009), colleges should reexamine current strategies for recruiting Latino students.

Planning faculty workshops on Latino student success strategies was from the curriculum and instruction area of institutional forces. Once Latino students are enrolled,

colleges have a responsibility to provide for their success (Engstrom & Tinto, 2008; Vaughan, 2006). Colleges indicated that they are planning to increase Latino student recruiting and also planning faculty workshops on Latino success strategies, which is a logical pairing of institutional plans to promote the success of the students being recruited.

Planned strategies with less than 7% agreement are presented in Table 24. These Latino success strategies came from four of the five institutional areas.

Table 24

Planned Latino Student Success Strategies with Less Than 7% Agreement

Planned Activity	% Agreement	Institutional Area
Planning college news service in Spanish	6.8	Recruiting & Admissions
Planning translation/ interpretation services	5.6	Academic Services
Planning faculty-student mentoring for Latinos	5.3	Academic Services
Planning initiative to encourage Latino family visits	5.3	Student Services
Planning Latino college readiness program	3.8	Academic Services
Planning advertising in Spanish	0.0	Recruiting & Admissions

Table 24 shows that no participants were planning advertising in Spanish and less than 6.8% (n = 3) of the 44 participants reported plans for a college news service in Spanish. Three of the planned items were from academic services and addressed plans for Spanish translation services, plans for a Latino college readiness program, and plans for

a Latino faculty-student mentoring program. These low agreement strategy activities are very Latino-specific. A Latino readiness program is expensive to implement and sustain and not feasible when a population of students is not prevalent in the college service area. Colleges in low Latino density areas logically would not be investing resources to attract and serve a population not significantly represented in their service areas.

Although documentation status was not a focus of this study, the constant publicity surrounding community college admissions policies between 2007 and 2009 help explain some of the reasons this study identified many Latino-specific activities in the lower percent agreement group. It has been estimated that over one-half of North Carolina's Latino residents have legal documentation status, and that 21.6% were born in North Carolina (Kasarda & Johnson, 2006). However, the very public debate surrounding admission of undocumented students to community college curriculum programs and public media debates that examined education as well as other social services for undocumented immigrants may have pushed overt and very Latino-specific student recruiting practices, such as college news service and advertising in Spanish, out of college budgets and priorities. Colleges in areas where Latinos were significantly represented may have been reluctant to plan student recruiting with Spanish portals of communication when the ultimate decision regarding immigration status and student admission to curriculum programs was constantly changing.

Research Question Three: Variations in Latino Student Success Activities and Degree of Latino Settlement

The second researcher expectation was that Latino settlement density was a driving force catalyzing implementation and planning of Latino student success strategies in North Carolina community colleges. The relationship of Latino settlement

density and Latino student success activities was explored to answer the final research question: Are there variations among North Carolina community colleges' Latino student success activities based on the degree of Latino settlement in the college service area? This expectation was based on Cohen and Brawer (2003) who stated that most changes in educational focus resulted from changing demography and public perception of the institution's purpose, and on Kochhar et al. (2005) whose study indicated that the changing demographics in the southeastern communities would result in profound effects on education.

The high and low percent of Latino population in the college service area were compared on Latino student success variables from four institutional areas. In general, means, indicating the level of Latino student success activities for the low percent of Latino population group, were lower than means from the high percent of Latino population group. This indicated areas with greater density were doing more activities for Latino student success. However, only the mean difference from the academic services item derived from college welcomes Latinos as an asset to campus, leaders actively promote Latino student success, campus provides a supportive environment for Latino student success, campus empowers peer mentors, and staff members listen to Latinos to determine their needs was statistically significant, $t(32), = 2.44$, $p = .021$, $d = .83$. Having lower means in the lower density group for percent of Latino population in the college service area was consistent with the researcher's expectation, even though the mean differences in the high and low groups for density were not statistically significant.

Perception of significance of Latinos in the college service area groups were compared on activity variables. Though no statistically significant mean differences were found in the group that indicated a perceived significance of Latinos in the college service area and the group that indicated no perceived significance of Latinos in the college service area, these data presented interesting results for the study. The means from the group that did not indicate a perceived significance of Latinos in the college student area, in general, were larger than the corresponding means from the group that indicated a perceived significance in the college student area. On the surface this seems to be an opposite finding from the results of the Latino student success activities and percent of Latino population in the college service area where mean values for the low group were generally lower than mean values for the higher percent of Latino population group.

Rather than assuming the scores were erroneous, the researcher had to speculate as to how these seemly contrary findings fit together. The likelihood exists that the fact-based percent of Latino population in the college service area and the feelings-based perceived significance of Latinos in the college service area are both acceptable results as they measure very different properties of density. The possibility exists that respondents initially answered positively to perceived significance of Latinos in the college service area, not wanting to label any population as “insignificant,” thus inflating the number of participants who answered positively to this item. More importantly, actual density could be relatively high in an area, but the item asked for the leader’s feelings about significance of the Latino population. Additionally, persons in institutions that influence decisions such as how to make a campus Latino friendly or how to

support Latino family visits to campus may not always be in positions of leadership and may not have been included in the study sample. Another possibility to explain the results is that decisions in institutions are made by a collection of individuals, and although most leaders prefer to think that evidence-based data drive all decisions, this is not always the case. People often make decisions based on what they feel is the appropriate course of action. Latino student success activities could have been implemented based on how leaders felt about providing the services. The results for this perceived significance density measure and Latino student success activities links to Hurtado et al. (2008) who explained that historically just increasing numbers of diverse students had not been a motivating force for changing policies and practices.

The final exploration of degree of Latino settlement and Latino student success activities was performed using the percent of Latino settlement change since 1990 and Latino student success variables from the institutional areas. From curriculum and instruction, there was a statistically significant positive correlation between the categorical item derived from providing diversity studies, providing Latin American studies, tracking Latino student progress, and identifying students with problems and connecting these students to appropriate resources and percent of Latino settlement change since 1990, $r = .298$, $p = .049$, $r^2 = .09$. There was also a statistically significant positive relationship between recruiting items and percent of Latino settlement change since 1990, $r = .303$, $p = .046$, $r^2 = .09$, and a positive, though not statistically significant relationship, $r = .296$, $p = .051$, $r^2 = .09$, for portals of Spanish communication and percent of change in the service area as shown in Table 18. Since these items were primarily Latino-specific, finding a positive correlation with medium strength (Gravetter

& Wallnau, 2007) to percent change since 1990 in the service region was not unexpected.

Conclusions

The collected Latino student success strategies, implemented and planned, tell that North Carolina community colleges have made changes to respond to the growing North Carolina Latino population. The results indicated that most Latino student success activities were provisions and processes, not programs. Programs are expensive to implement and sustain, while value-based measures such as having a welcoming campus, and having faculty and staff that listen to the student population are activities that all colleges should have in place or in future plans to help foster student satisfaction, persistence, and achievement for all students.

Findings of this study did not offer statistically significant evidence that implementation of Latino student success activities was a result of percent of Latino population in the college service area, or percent change since 1990. It was noted that activities in college service areas where leaders indicated the absence of perceived significance of Latinos showed higher Latino student success activity. The apparent paradigm was not the researcher's expectation, but might be explained when the value-based density measures of the related survey items are considered.

Findings of this study suggested the catalyst for implementing activities for Latino student success was much more complex than the density measures used in the study. Speculatively, there are other reasons colleges have responded with change to help Latino students succeed. A college service area could be influenced by a strong advocate of Latino educational progress or a political advocate of Latino success as a

component of North Carolina's economic vitality. Businesses that rely on a Latino workforce could have catalyzed the changes in community colleges to meet their workforce needs. Conversely, non-supportive county commissioners or political backlash could have resulted in fewer Latino student success activities for college service areas, even though density measures for the area might have indicated the presence of significant numbers of Latinos. A critical mass of Latinos that necessitates corresponding community college student success programming and activities has not been determined.

Findings that Latino student recruiting practices using portals of communication in Spanish were in the lowest prevalence suggested that some disconnect exists between what is available to foster success for students and the awareness level of available community college services. If recruiting is not effective and adequate, it will not result in the creation of a population curious about campus services, nor a population proactive in finding out what services, and support systems are in place to help students enroll and succeed. The policy change to admit undocumented students to curriculum programs in North Carolina community colleges will hopefully instigate college self-assessments that review student recruiting and enrollment and lead to strategies that will eliminate the disconnect between recruiting Latino students and the support services in place to foster their student success.

Limitations

Reliability of the Survey Instrument

The panel of experts who reviewed the survey was helpful, and panel members had good suggestions; however in retrospect, the researcher should have sought more

input on the survey construction and pilot testing from scholars who had experience creating and analyzing quantitative surveys. The variety of question formats was used to make the survey interesting and user friendly, but the use of multiple formats for survey items complicated analyses of the data.

Nineteen leaders from Georgia community colleges were asked to participate in the test-retest process for establishing reliability of the survey. After repeated contacts, only 6 of the 19 college leaders completed both surveys. Only 4 of the 6 who completed the two surveys filled out the survey evaluation. Decisions on revising and rewording survey items had to be made based on small samples of participants. The survey design with future planning items only displaying to those who answered no, strongly disagree, or somewhat disagree to corresponding items regarding implemented practices, yielded samples of varying sizes for many future planning survey items, again complicating evaluation of the reliability of the instrument. Because of these factors, percent of exact agreement and adjacent agreement were used to evaluate the test-retest procedure. Though this has been shown to be a simple method of evaluating the test-retest process, it is not the preferred method for evaluation as percent agreement is inflated due to random chance (Birkimer & Brown, 1979).

Threats to Validity

Inherent to survey research is the dilemma of whether the person who was supposed to fill out the survey actually completed the survey, and whether respondents have answered items honestly. The researcher had no evidence to the contrary, and thus assumed honest responses. Knowing that the information was being compiled state-wide may have influenced some participants to answer more positively about their

institutional practices and planning, especially on value-based activities. For this study, the researcher also had to rely on the chief academic officer to recommend a participant who would be willing to participate in the study and who would be knowledgeable of the institution's practices and plans for future Latino student success practices. The researcher could not determine if each participant had the same level of knowledge about Latino student success activities in the institution.

Timing presented an external threat to the study's validity. The community college spring semester ends for most institutions the first or second week of May. This necessitated a push to get the survey out to participants before the semester ended, and admittedly, more time and review should have been spent on revising and preliminary testing of the survey. Also, the survey was sent in April 2009 and collection of data extended to mid-May. This was a time in the community college calendar when many administrators and instructors were finishing the spring semester, registering summer students, calculating final grades, and concluding year long projects; therefore, probably not the best time to ask leaders to add another task to their workload.

Media coverage on immigration and shifting demography, both negative and positive, has been abundant, and this media spotlight has drawn attention to Latino students in community colleges. According to Estrada, Tsai, and Chandler (2008), the current attention to immigration issues has focused public awareness on recent immigrants, and also, racial groups of longer standing. The volatile and political nature of Latino immigration and migration to southeastern communities may have influenced responses to the survey.

The timing of the study coincided with a political environment of indecision about Latino immigration and migration to southern communities and national debate on immigration reform (Sullivan, 2007). In the wake of factory closings and job losses across North Carolina, some individuals blamed the poor economic conditions, and specifically their economic woes, on the influx of Latinos across the state. Bryant (2004) wrote, "A common refrain is that Hispanics have come to North Carolina to take 'our jobs' and that the 'immigrants' willingness to work for low wages will only cut native residents out from what remains of the job market" (p. 414). While this is not true, the perception that Latinos have moved to North Carolina to take jobs from local residents by accepting lower pay is prevalent in some areas of the state. This political atmosphere may have influenced answers to survey items.

Whether these results can be generalized to other states that have experienced rapid growth of Latino populations in the last decade is unknown. The structure of community colleges is very different state-to-state and even within North Carolina there are organizational differences in colleges. There is no centralized template of what institutional departments a community college has, and no standardized structure for what activities are handled by specific college areas. Individuals will have to interpret this study in the context of their specific institutions and the context of the political agenda of their state.

Recommendations for Future Research, Implications for Practice, and Reflections

Recommendations for Future Research

Continued research into Latino student success is needed. Other researchers are asking questions similar to the questions asked in this study, such as "What do we know

and what do we need to know about the transition to college of EL [English learners] and undocumented immigrant students?" (Rodriguez & Cruz, 2009, para. 2) and exploring what implications were associated with these students and their transition to college with the intent of raising awareness of the "research audience" (para. 2). As the Latino population becomes more visible in secondary schools and in higher education, researchers will be looking to answer many questions:

1. What is the efficacy of implemented provisions, programs, and processes in serving the educational needs of Latino students in North Carolina?
2. Which provisions, programs, and processes are critical in addressing Latino student success, and what is the cost in resources for community colleges to implement these critical changes?
3. Which provisions, programs, and processes will make an impact on North Carolina economy and workforce development?
4. What is the awareness level of North Carolina Latinos regarding opportunities for curriculum and non-curriculum programs and resources?
5. What is the effectiveness of Spanish communication portals for recruiting and advertising for North Carolina community colleges?
6. What are the provisions, programs, and processes for Latino student success implemented and planned in southeastern states and what is driving changes?
7. What is the measuring scale that labels a campus "a welcoming campus," "a safe campus," or "a supportive campus" for North Carolina Latino community college students?

8. How do Latinos feel about what community colleges are doing to recruit them as students, and provide for their success?

Implications for Practice

Most North Carolina community college leaders indicated their colleges were performing well in serving the residents of their college service areas, but as reported, the performance was generally in the areas of provisions and processes, not programming. The open-ended comments revealed that leaders were somewhat concerned that community colleges were not currently admitting unauthorized students to curriculum programs, and that the majority of Latino students in the colleges were in Adult Basic Education, English as a Second Language, and Early College programs. The issue of admission of undocumented students has been resolved for the present, but there is no evidence that this is a final resolution or that this solution will be broad enough to provide an opportunity for a majority of Latinos to participate in higher education. If this survey were readministered after the current policy of admitting undocumented students to community college curriculum programs has been implemented, would the findings be significantly different? Will Latinos begin looking at North Carolina community colleges as a first step to higher education?

All colleges need to review their Latino student recruiting and enrollment in the light of the decision to admit undocumented students, and leaders need to explore the demographic changes in North Carolina. One-half of the Latino residents in North Carolina are documented residents and over 20% were born in North Carolina (Kasarda & Johnson, 2006). These residents could be eligible for federal financial assistance and in-state tuition to help with college funding; therefore, awareness is an issue that should

be addressed. An audience for Latino student recruiting with Spanish portals of communication exists, and creating interest in what community colleges offer Latino students is a worthy endeavor. Creating a population of Latino students who are proactive in investigating possibilities of enrollment and support, would help eliminate the disconnect between what leaders say is in place for Latino student success and the numbers of Latino students who are taking advantage of services. For students who cannot get federal funding because of immigration status, colleges should be vigilant in making sure that potential students have access to information about special funding opportunities for ethnic groups.

The implications for educational practice partially overlap the recommendations for future research. Policy makers can easily review the top lists of activities and plans and see what their colleagues are doing for Latino success, but no cost analyses for resources has been explored in this study. A welcoming campus which considers Latino students an asset to education, for example, cannot be measured in money and staff resources, though it can be fostered and brought about by a proactive leadership focus. Community colleges should examine the benefits that having an educated workforce can bring to the state and look for strategies to recruit and enroll students, and foster higher educational success for this growing ethnic group. The assembled strategies in this study can serve as a blueprint to implement the elements of student success that will keep students in school, and foster developing skills needed in the workplace.

Leaders should study the list of activities that foster Latino student success and decide what activities should be prioritized on their campuses, just as leaders should

answer the questions posed by the College Board conference summary (2005) and ask these questions about their campuses and Latino student success:

- Are there any curriculum changes that should be considered?
- Is our faculty prepared to teach students who have academic and personal backgrounds different from current students?
- If more "at risk" students are anticipated, are there any changes that might ensure college completion?
- Does the campus (particularly the faculty and administrators) resemble in any way the composition of the future?
- Does the institution want to intentionally target new groups of students or will it simply adapt to changes as they occur?
- What are the financial resources (including financial aid) necessary to meet the institution's enrollment goals? (p. 8)

Reflections

Primarily, demographers such as Passel and Cohn (2008, 2009) and Furuseth and Heberlig (2009), and writers and researchers with Latino-sounding names are following and documenting the growth and needs of the Latino population in the United States and in southeastern communities. Ramirez (2009) stated, "the sooner we, as a nation come to terms with the reality of this shift in demographics, the sooner the search for ways to house Latinos and help them [Latinos] integrate into their communities can become one of the focal points in building a stronger America" (p. 182). Surely, no one could deny the importance of the community colleges in helping Latinos integrate into their communities. North Carolina has experienced demographic changes and researchers

have documented strategies to increase educational success for Latinos. Institutions should question whether they are doing all they can to provide for Latino student success, especially in higher education.

A generous Stanly Regional Medical Center grant has allowed me to participate in an educational partnership between this hospital and the Stanly County Schools. As a result of this partnership, I am in the Stanly County Schools most school days coordinating and teaching a healthy lifestyles curriculum with teachers and students. The first year of this endeavor, I was struck by the presence of young Latino students in classrooms and their growing numbers in many parts of this county. During the eight years I have participated in this project, the number of Latinos in classrooms has been growing. Sometimes these children seem to be enrolled in public school with no English language skills, and no family members who speak English, or speak English well enough, to help these children with activities outside of the classroom or understand and navigate the United States educational system.

The semester following my first visits in the schools, the need for me to have Spanish language skills was evident and I turned to Stanly Community College for this education. As a result of my community college classes and several immersion studies in Mexico and Guatemala, my interest in Latinos, and especially Latinos in North Carolina, has grown. The students I worked with in that first semester are now college age, and admittedly, this dissertation grew from my curiosity about their educational opportunities and achievement in higher education.

I am encouraged by seeing how many North Carolina community colleges have stretched their resources to meet the needs of the growing Latino population, but much

more needs to be done to eliminate the educational disparities between Latinos and other ethnic groups. Just enrolling Latino students will not be enough to foster their success in higher education. Colleges will have to be proactive in creating campuses and policies that provide all the key strategies that encourage student persistence and achievement.

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APPENDICES

Appendix A: Latino Student Success Pilot Test Evaluation form and Latino Student Success Pilot Survey

Appendix B: Latino Student Success Survey

Appendix C: Letters to Participants

Appendix D: County-by-County Percent Latino Settlement Density and Percent of Latino Settlement Change

Appendix A: Latino Student Success Pilot Test Evaluation Form and Latino Student Success Pilot Survey

Pilot Test Evaluation Form

1. How long did the survey take to complete?

2. Are instructions for completing the survey clearly written?

3. Are questions easy to understand? (If you were unable to answer a question, please note the question number and briefly explain)

4. Was it clear how to indicate your responses?

5. Are the response choices mutually exclusive?

6. Were there any questions for which the answer you wanted to give was not an option?

7. Could you correctly use the directions for selecting and changing answers?

8. Was adequate space allotted for open-ended survey items?

9. Was the assurance of confidentiality adequate?

10. Do you have any suggestion regarding the addition or deletion of questions, clarification of instructions, or improvement in the questionnaire format?

(Adapted from: Fink, A. (2003). *The survey handbook* (2nd ed.). Thousand Oaks, CA: Sage, (pp. 109-110).

Latino Student Success Pilot Survey

As a leader in your institution, knowledgeable about this topic, you have been recommended by your chief academic officer to participate in this survey. All information from this survey is confidential. No participants or institutions will be identified in the results. Your email address will be used to assist the researcher in tracking respondents and nonrespondents. Your college service area will be used to sort the data for analysis. No demographic information will be shared or used in any manner other than described, and all identifiers will be removed from the data after analysis. No person, position, or institution will be identified in the results of the survey.

Part I: Demographic Information
Email address:
Title of position at your institution:
Areas of college you are responsible for:
Time in this position:

Please select one option:

1. Less than one year
2. 1-5 years
3. 6-10 years
4. 11-15 years
5. More than 15 years

Time employed at your institution:

Please select one option:

1. Less than one year
2. 1-5 years
3. 6-10 years
4. 11-15 years
5. More than 15 years

What is the primary county(s) of your service area?

Please select the best answer to describe provisions for Latino student success at your institution.
Provision for student success of a globally diverse population: Ground work or preparation for an action.

My institution has an overt commitment to student success for a globally diverse student population made visible in our intuitional mission.

1. Yes
2. No

My institution has an overt commitment to student success for a globally diverse student population made visible in our institutional goals.

1. Yes
2. No

Leaders at my institution actively promote Latino student success.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Faculty at my institution willingly engage in Latino student success strategies.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Staff at my institution willingly engage in Latino student success strategies.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution encourages Latino students to become involved in campus activities.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My campus provides a supportive environment for Latino student success.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My campus provides a safe place for Latino students to interact with each other.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution empowers Latino students to serve as peer mentors to other Latino students.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution has plans to make student success for a globally diverse student population visible in our institutional goals.

1. Yes
2. No

My institution has plans to make student success for a globally diverse student population visible in our institutional mission.

1. Yes
2. No

My institution has plans to make student success for a globally diverse student population visible in our institutional goals.

1. Yes
2. No

My institution has future plans for active promotion of Latino student success.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution is planning an initiative to raise awareness of Latino students as an asset to our campus.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution is planning programs, workshops, or activities for faculty to encourage participation in Latino student success.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution is planning programs, workshops, or activities for staff to encourage participation in Latino student success.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution is planning ways to encourage Latino students to become involved in campus activities.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution has plans to provide a safe place for Latino students to interact with each other.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution is planning an initiative to encourage Latino students to serve as peer mentors to other Latino students.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Part III: Programs for Latino student success

Programs for Latino student success: Services, coursework, and student support
Please select the best answer to describe programs for Latino student success in your institution.

My institution provides faculty development on strategies to promote Latino student success.

1. Yes
2. No

My institution provides staff development on strategies to promote Latino student success.

1. Yes
2. No

My institution participates in college readiness programs for Latino student success.

1. Yes
2. No

My institution has a faculty-student mentoring program for Latino students.

1. Yes
2. No

My institution has created programs to create mutual support among Latino students.

1. Yes
2. No

My institution has established programs supporting Latino students in maintaining connection to family and community while attending college (providing cultural activities for families on campus, encouraging family visits on campus, etc.)

1. Yes
2. No

My institution has an initiative to encourage Latino students to become involve in campus activities.

1. Yes
2. No

My institution has a freshman learning experience course (or similar coursework) targeted to Latino students to aid these students in making the transition to college.

1. Yes
2. No

My institution has created service learning opportunities for Latino students to give back to their communities (partnerships with Latino businesses, service learning outreach programs, or summer college activities for Latino students, etc.)

1. Yes
2. No

Which of the following forms of communication does your college offer in Spanish? Please "check all that apply".

Telephone option in Spanish
Website options in Spanish
Printed college catalog option in Spanish
Online college catalog option in Spanish
New service in Spanish (college channel for new and events in Spanish or with some Spanish on the main channel)
Advertising billboards in Spanish
Marketing materials such as brochures or advertisements in Spanish
None of the above

Which of the following forms of communication is your college developing? Please "check all that apply".

Telephone options in Spanish
Website options in Spanish
Printed college catalog in Spanish
Online college catalog option in Spanish
New service in Spanish
Advertising billboards in Spanish
Marketing materials such as brochures or advertisements in Spanish
None of the above

Translation/interpretation into Spanish is available for both written and face-to-face communication.

1. Yes
2. No

My institution offers coursework in Latino studies such as Latin American history, diversity studies, or Latin American culture.

1. Yes
2. No

My institution offers coursework in diversity appreciation.

1. Yes
2. No

My institution has a proactive approach to identifying globally diverse students having problems and connecting these students to appropriate campus resources.

1. Yes
2. No

My institution offers tutoring specifically targeted to Latino students (ESL students or students coming from Spanish speaking homes)

1. Yes
2. No

My institution hosts or has hosted Latino cultural events on campus.

1. Yes
2. No

My financial aid staff has information for Latino students regarding Latino-targeted college scholarships and college loan assistance for Latino students (Such as Hispanic Scholarship Fund, Adelante, Hispanic College Fund, US Education Leadership Fund or local Latino associations' financial aid opportunities for Latino students.

1. Yes
2. No

My institution has plans to offer faculty development on strategies to promote Latino student success.

1. Yes
2. No

My institution has plans to offer staff development on strategies to promote Latino student success.

1. Yes
2. No

My institution has plans to develop college readiness programs for Latino students in local high schools.

1. Yes
2. No

My institution is developing a faculty-student mentoring program for Latino students.

1. Yes
2. No

My institution has plans to implement programs to create mutual support for Latino students.

1. Yes
2. No

My institution is developing programs to assist Latino students in maintaining connection to family and community while attending college.

1. Yes
2. No

My institution has plans for an initiative to encourage Latino students to become involved in campus activities.

1. Yes
2. No

My institution has plans to offer a freshman learning experience course (or similar coursework) specifically targeted to incoming Latino students.

1. Yes
2. No

My institution is planning service learning opportunities that will allow Latino students to give back to their communities.

1. Yes
2. No

My institution is developing resources to have translation/interpretation available for written and face to face communication.

1. Yes
2. No

My institution is planning or developing course offerings in Latin American studies, diversity studies, or Latin American culture.

1. Yes
2. No

My institution is developing coursework in diversity appreciation.

1. Yes
2. No

My institution is planning or developing an initiative to identify Latino students having problems and to connect these students with appropriate campus resources.

1. Yes
2. No

My institution is planning to offer tutoring specifically targeted to Latino students (ESL students or students coming from Spanish speaking homes).

1. Yes
2. No

My institution is planning a Latino cultural event on campus for the coming year.

1. Yes
2. No

My institution is planning staff development opportunities to increase awareness of Latino college funding opportunities.

1. Yes
2. No

Please indicate to what extent you agree with the following statements.

Part IV: Processes for Latino student success

Processes for Latino student success: Actions or practices that do not take the form of a programs.

Faculty members listen to Latino students to determine their distinctive needs.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Staff members listen to Latino students to determine their distinctive needs.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My faculty makes efforts to include Latino students in interaction with students outside of class and formal appointments.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My staff makes efforts to include Latino students in interaction with students outside of class and formal appointments.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution actively recruits Latino students.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Efforts to recruit Latino students will be increased in the coming year.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution actively recruits Latino faculty.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Efforts to recruit Latino faculty will be increased in the coming year.

1. Strongly agree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution actively recruits Latino staff members.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Efforts to recruit Latino faculty will be increased in the coming year.

1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

My institution collects data on globally diverse student progress aside from campus-wide student progress tracking.

1. Yes
2. No

My institution encourages Latino families to visit campus before and after enrollment.

1. Yes
2. No

My institution is planning to collect data on Latino student progress in the future.

1. Yes
2. No

My institution is planning an initiative to encourage Latino families to visit on campus.

1. Yes
2. No

Is there anything else you would like for me to know about Latinos in your institution?

Appendix B: Latino Student Success Survey

Latino Student Success Survey

As a leader in your institution knowledgeable about this topic, you are invited to participate in this survey. All information from this study is confidential. No participants will be identified in the results. Your email address will be used to assist the researcher in tracking respondents and nonrespondents. Your college service area will be used to sort the data for analysis. No demographic information will be shared or used in any manner other than described, and all identifiers will be removed from the data after analysis. No person, position, or institution will be identified in the results of this study.

Part I: Demographic Information

Q1. Email address:

Q2. Title of position at your institution

Q3. Areas of the college you are responsible for:

Q4. What is the primary county(s) of your service area?

Q5. Time in this position:

1. Less than one year
2. 1-5 years
3. 6-10 years
4. 11-15 years
5. More than 15 years

Q6. Time employed at your institution

1. Less than one year
2. 1-5 years
3. 6-10 years
4. 11-15 years
5. More than 15 years

Q7. Do you perceive there is a significant percentage of Latinos in your college service area?

1. Yes
2. No

Q8. Optional Comment:

Part II: Please select the best answer to describe provisions for globally diverse student population and Latino student success at your institution (defined as ground work or preparation for an action).

Q9. My institution has an overt commitment to student success for a globally diverse student population made visible in our institutional mission.

1. Yes
2. No

Q10. My institution has an overt commitment to student success for a globally diverse student population made visible in our institutional mission.
1. Yes
2. No

Q11. Leaders at my institution actively promote Latino student success.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q12. My institution welcomes Latino students as an asset to our campus.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q13. Faculty at my institution willingly engages in Latino student success strategies.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q14. Staff at my institution willingly engages in Latino student success strategies.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q15. My institution encourages Latino students to become involved in campus activities.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q16. My campus provides a supportive environment for Latino student success.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q17. My campus provides a safe place for Latino students to interact with each other.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q18. My institution empowers Latino students to serve as peer mentors to other Latino students.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Questions of in this section may have nonsequential item numbers.

Q19. My institution has plans to make student success for a globally diverse student population visible in our institutional mission.
1. Yes
2. No

Q20. My institution has plans to make student success for a globally diverse student population visible in our institutional goal.
1. Yes
2. No

Q21. My institution has future plans for active promotion of Latino student success.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q22. My institution is planning an initiative to raise awareness of Latino students as an asset to our campus.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q23. My institution is planning programs, workshops, or activities for faculty to encourage participation in Latino student success strategies.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q24. My institution is planning programs, workshops, or activities for staff to encourage participation in Latino student success strategies.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q25. My institution is planning ways to encourage Latino students to become involved in campus activities.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q26. My institution is making provisions to provide a supportive environment for Latino student success.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q27. My institution has plans to provide a supportive environment for Latino student success.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q28. My institution is planning an initiative to encourage Latino student to serve as peer mentors to other Latino student.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Part III: Programs for Latino student success (defined as services, coursework, and students support).

Please select the best answer to describe programs for Latino student success in your institutions.

Q29. My institution provides faculty development on strategies to promote Latino student success.
1. Yes
2. No

Q30. My institution provides staff development on strategies to promote Latino student success.
1. Yes
2. No

Q31. My institution participates in college readiness programs for Latino student success.
1. Yes
2. No

Q32. My institution has a faculty-student mentoring program for Latino students.
1. Yes
2. No

Q33. My institution has created programs to create mutual support among Latino students.
1. Yes
2. No

Q34. My institution has established programs supporting Latino students in maintaining connection to family and community while attending college. (providing cultural activities for families, encouraging family visits on campus, etc.)
1. Yes
2. No

Q35. My institution has an initiative to encourage Latino students to become involved in campus activities.
1. Yes
2. No

Q36. My institution has a freshman learning experience course (or similar coursework) targeted to Latino students to aid these in making the transition to college.
1. Yes
2. No

Q37. My institution has created service learning opportunities for Latino students to give back to their communities (partnerships with Latino businesses, service learning in outreach programs or summer college activities for Latino students, etc.)
1. Yes
2. No

Q38. Which of the following forms of communication does your college offer in Spanish? Please "check all that apply".
1. Telephone options in Spanish
2. Website options in Spanish
3. Printed online catalog options in Spanish
4. Online college catalog options in Spanish
5. News service in Spanish (college channel for news and events in Spanish or with some Spanish on the main channel)
6. Advertising billboards in Spanish
7. Marketing materials such as brochures or advertisements in Spanish
8. None of the above

Q39. Which of the following forms of communication is your college developing? Please "check all that apply".
1. Telephone options in Spanish
2. Website options in Spanish
3. Printed online catalog options in Spanish
4. Online college catalog options in Spanish
5. News service in Spanish (college channel for news and events in Spanish or with some Spanish on the main channel)
6. Advertising billboards in Spanish
7. Marketing materials such as brochures or advertisements in Spanish
8. None of the above

Q40. Translation/interpretation into Spanish is available for both written and face-to-face communication.
1. Yes
2. No

Q41. My institution offers coursework in Latino studies such as Latin America history, or Latin American culture.
1. Yes
2. No

Q42. My institution offers coursework in diversity appreciation.
1. Yes
2. No

Q43. My institution offers tutoring specifically targeted to Latino students (ESL students or students coming from Spanish-speaking homes).
1. Yes
2. No

Q45. My institution hosts or has hosted Latino cultural events on campus.
1. Yes
2. No

Q46. My financial aid staff has information for Latino students regarding Latino-targeted college scholarships and college loan assistance for Latino students. (such as Hispanic Scholarship Fund, Adelante, Hispanic College Fund, US Education leadership Fund, or local Latino associations' financial aid opportunities for Latino students.
1. Yes
2. No

The following questions may have nonsequential item numbers.

Q47. My institution has plans to offer faculty development on strategies to promote Latino student success.
1. Yes
2. No

Q48. My institution has plans to offer staff development on strategies to promote Latino student success.
1. Yes
2. No

Q49. My institution has plans to develop college readiness programs for Latino students in local area high school.
1. Yes
2. No

Q49. My institution has plans to develop college readiness programs for Latino students in local high schools.
1. Yes
2. No

Q50. My institution is developing a faculty-student mentoring program for Latino students.
1. Yes
2. No

Q51. My institution has plans to implement programs to create mutual support for Latino students.
1. Yes
2. No

Q52. My institution has plans to implement programs to assist Latino students in maintaining connection to family and community while attending college.
1. Yes
2. No

Q53. My institution has plans for an initiative to encourage Latino students to become involved in campus activities.
1. Yes
2. No

Q54. My institution has plans to offer a freshman learning experience course (or similar coursework) specifically targeted to incoming Latino students.
1. Yes
2. No

Q55. My institution is planning service learning opportunities that will allow Latino student to give back to their communities.
1. Yes
2. No

Q56. My institution is developing resources to have translation/interpretation available for written and face-to-face communication.
1. Yes
2. No

Q57. My institution is planning or developing courses in Latin-American history, or Latin American culture.
1. Yes
2. No

Q58. My institution is developing coursework in diversity appreciation.
1. Yes
2. No

Q59. My institution is planning or developing an initiative to identify Latino students having academic problems and to connect these students with appropriate campus resources.
1. Yes
2. No

Q60. My institution is planning to offer tutoring specially targeted to Latino students (ESL students or students from Spanish–speaking homes).
1. Yes
2. No

Q61. My institution is planning a Latino cultural event on campus for the coming year.
1. Yes
2. No

Q62. My institution is planning staff development opportunities to increase awareness of Latino college funding opportunities.
1. Yes
2. No

Part IV: Processes for Latino student success (defined as actions or practices that do not take the form of a program).

Please indicated to what extent you agree or disagree with the following statements.

Q63. Faculty members listen to Latino students to determine their distinctive needs.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q64. Staff members listen to Latino students to determine their distinctive needs.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q65. My faculty makes efforts to include Latino students in activities outside of class and formal appointments.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q66. My staff makes efforts to include Latino students in interactions outside of formal meetings and appointments.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q67. My institution actively recruits Latino students.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q68. Efforts to recruit Latino students will be increased in the coming year.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q69. My institution actively recruits Latino faculty.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q70. Efforts to recruit globally diverse faculty will be increased in the coming year.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q71. My institution actively recruits Latino staff members.
1. Strongly disagree
2. Somewhat disagree
3. Somewhat agree
4. Strongly agree

Q72. Efforts to recruit globally diverse staff members will be increased in the coming year.
   1. Strongly disagree
   2. Somewhat disagree
   3. Somewhat agree
   4. Strongly agree

Q73. My institution collects data on globally diverse student progress as a sub-set of campus-wide student progress tracking.
   1. Yes
   2. No

Q74. My institution encourages Latino families to visit campus before and after enrollment.
   1. Yes
   2. No

The following items may have non-sequential items.

Q75. My institution is planning to collect data on globally diverse student progress as a sub-set of campus-wide student progress tracking.
   1. Yes
   2. No

Q76. My institution is planning an initiative to encourage Latino families to visit on campus.
   1. Yes
   2. No

Q77. Is there anything else you would like for me to know about Latinos in your institution?

Appendix C: Letters to Participants

Dear Xxxxx (CAO),

You have graciously agreed to represent xxxxxxx Community College in this study about Latino student success and North Carolina community colleges.

Consent and Confidentiality

- Your involvement in this project consists of completion of a survey which should take no more than 15-16 minutes of your time.
- Your participation is entirely voluntary and you may decline to answer any question you choose.
- Your responses will be strictly confidential. No institution, position, or individual will be identified in survey results.
- Your email address and primary county of service will be confidential, not shared or used for any other purpose other than tracking respondents and non-respondents and sorting the surveys. All identifiers will be removed from the surveys after analysis.
- There are no foreseeable risks to individuals participating in the study.
- There is no direct benefit to you for participating in the study; however, if you would like the results of the study, please email your request to: Bonnie.winecoff@xxxx.com, and I will share the survey results with you.

Study results may provide beneficial information for institutional planning for future Latino student success. If you have any questions, please feel free to email me or call me. You may also contact my dissertation chair Dr. Ann Alexander at aalexander@email.wcu.edu (828-227-XXXX) or contact the Chair of the Western Carolina University Institution Review Board at 828-227-XXXX.

Completion and submission of the survey indicates you consent to participate in this study. Thank you for your time and attention in this matter. To begin the survey copy and paste this URL to your browser address line, or go directly to the survey using the email attachment link.

Sincerely,

Bonnie Winecoff
Doctoral Candidate, Western Carolina University
Email: bonnie.winecoff@yxxx.com

Dear College Leader,

Your chief academic officer has recommended you as the college leader to represent your community college in this study regarding Latino student success and North Carolina Community colleges.

Consent and Confidentiality

- Your involvement in this project consists of completion of a survey which should take no more than 15-16 minutes of your time.
- Your participation is entirely voluntary and you may decline to answer any question you choose.
- Your responses will be strictly confidential. No institution, position, or individual will be identified in survey results.
- Your email address and primary county of service will be confidential, not shared or used for any other purpose other than tracking respondents and non-respondents and sorting the surveys. All identifiers will be removed from the surveys after analysis.
- There are no foreseeable risks to individuals participating in the study.
- There is no direct benefit to you for participating in the study; however, if you would like the results of the study, please email your request to: Bonnie.winecoff@xxxx.com, and I will share the survey results with you.

  Study results may provide beneficial information for institutional planning for future Latino student success.

If you have any questions, please feel free to email me or call me at 704-438-XXXX. You may also contact my dissertation chair Dr. Ann Alexander at aalexander@email.wcu.edu (828-227-XXXX) or contact the Chair of the Western Carolina University Institution Review Board at 828-227-XXXX.

Completion and submission of the survey indicates you consent to participate in this study. Thank you for your time and attention in this matter.
To begin the survey, please copy and paste this URL to your browser address line or go directly to the survey using the attached survey link.

http://ultracat.wcu.edu/ultimatesurvey/Surveys/TakeSurvey.aspx?s=5D91ED82A1B64B

588602FA2B652F5C27

Sincerely,

Bonnie Winecoff
Doctoral Candidate, Western Carolina University

Appendix D: County-by-County Percent Latino Settlement Density and Percent of Latino Settlement Change

Table D1

County by County Density and % of Latino Settlement Change since 1990

County	% Latinos	% Change Since 1990
Alamance	11	1100
Alexander	3	357
Alleghany	8	524
Anson	1	215
Ashe	4	478
Avery	4	250
Beaufort	4	639
Bertie	1	509
Bladen	6	699
Brunswick	4	421
Buncombe	4	388
Burke	5	824
Cabarrus	9	1271
Caldwell	4	512
Camden	2	104
Carteret	2	130
Caswell	2	205
Catawba	9	756
Chatham	13	741
Cherokee	1	131
Chowan	2	124
Clay	2	83
Cleveland	2	281
Columbus	3	424
Craven	4	102
Cumberland	6	57
Currituck	2	137
Dare	3	235
Davidson	6	692
Davie	6	837
Duplin	21	632
Durham	12	730
Edgecombe	4	509

Table D1(continued)

County	% Latinos	% Change Since 1990
Forsyth	10	831
Franklin	7	624
Gaston	5	562
Gates	1	286
Graham	1	107
Granville	6	448
Greene	12	794
Guilford	6	454
Halifax	1	144
Harnett	8	361
Haywood	2	218
Henderson	8	477
Hertford	2	344
Hoke	10	1008
Hyde	3	205
Iredell	5	522
Jackson	2	272
Johnston	11	647
Jones	4	438
Lee	16	615
Lenoir	5	307
Lincoln	9	541
Macon	3	175
Madison	2	209
Martin	3	433
McDowell	4	965
Mecklenburg	10	570
Mitchell	3	522
Montgomery	15	403
Moore	6	534
Nash	4	384
New Hanover	3	255
Northampton	1	39
Onslow	7	36
Orange	6	309
Pamlico	1	180

Table D1(continued)

County	% Latinos	% Change Since 1990
Pasquotank	2	74
Pender	5	448
Perquimans	1	143
Person	3	200
Pitt	4	332
Polk	4	379
Randolph	10	1078
Richmond	4	350
Robeson	8	749
Rockingham	5	356
Rowan	6	725
Rutherford	2	232
Sampson	16	791
Scotland	1	33
Stanly	3	300
Stokes	2	229
Surry	9	667
Swain	2	145
Transylvania	1	94
Tyrell	8	1264
Union	10	1031
Vance	6	622
Wake	8	530
Warren	2	223
Washington	3	378
Watauga	2	150
Wayne	7	313
Wilkes	5	525
Wilson	9	730
Yadkin	9	507
Yancey	5	876

Pew Hispanic Center (2007)