

AN EXPLORATORY STUDY OF COMMUNITY COLLEGE
TEACHER EDUCATION BACCALAUREATE ALUMNI EXPERIENCES

by

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ABSTRACT

AN EXPLORATORY STUDY OF COMMUNITY COLLEGE TEACHER EDUCATION BACCALAUREATE ALUMNI EXPERIENCES

Victoria Jaye Shah

A survey was conducted of teacher education baccalaureate graduates from the first five years (2004-08) of St. Petersburg College's (SPC) programs in Florida, along with teacher education baccalaureate graduates from 2004-08 of the nearest state university, University of South Florida (USF). The survey focused on graduates who were found to be working in education. It first asked graduates descriptive questions about their coursework, backgrounds, and current teaching positions. The salient questions for this study asked graduates to rate the overall quality of various aspects of their academic programs and of their own competencies as teachers. With 89 SPC and 90 USF survey respondents, five questions returned statistically significant results.

This exploratory study was the first to consider the perspectives of graduates from one vertically-expanded community college in Florida, and the results shed positive light on this new delivery format. When the opinions of graduates of the new baccalaureate model and the traditional state university model were compared, they rated their competencies as teachers with no significant differences reported between the groups. The teaching graduates of the new vertically-expanded community college were significantly older and more place-bound than their university counterparts. Interestingly, graduates of the new baccalaureate delivery model were significantly more satisfied with

their decision to pursue a teacher education baccalaureate. Specifically, the teaching graduates of the vertically-expanded community college rated their advisement and early field experiences significantly higher than did their state university counterparts. The results suggest that if the cost of baccalaureate degree delivery is less expensive via the expanded community college model, and if it can reduce local teacher shortages by adding to the pool of qualified working teachers satisfied with their training and careers, then this model is worthy of investment from both taxpayers and students. Moreover, the teaching graduates suggested improvements for the programs they attended which both institutions may explore. Additional research on the cost and effectiveness of teacher education programs and on teacher attrition will help decision-makers further analyze the merits of various approaches to reducing regional teacher shortages.

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DEDICATION

To my parents, who believed strongly in higher education and both earned applied master's degrees, despite the challenges that they faced. And to Sheffield Edwards, with a formal education which ended in elementary school, whose aged wisdom, unconditional love, and solid belief in me kept me going in New York.

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I truly appreciate the time and effort that so many of the graduates of SPC and USF took to respond to my survey while working as busy new teachers and balancing their own responsibilities. Inclusion of graduates' academic experiences, in general terms

as summarized in my survey results, as well as of their individual voices, are a critical part of education policy analysis and an essential ingredient of this study. I am thankful for the respondents' willingness to share often lengthy and heartfelt comments with me as an unknown fellow educator.

V.J.S.

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Chapter I

INTRODUCTION

History of the Community College and Its Vertical Expansion

First established over a century ago, the public junior college in the United States upheld a mission to prepare the growing population of students to transfer to baccalaureate degree-granting colleges (Cohen & Brawer, 2003). Before this, the bachelor's degree, as it was termed, was only available to young unmarried White men from upper-class, not working-class, families (Walker, 2006; see also Cohen & Brawer, 2003). Since that time, the public junior college mission and the student population have evolved to become more comprehensive (Bailey & Morest, 2003). Notably, periods of growth and new public funding for community colleges have coincided with times of increased threats to America's idealistic self-image as a powerful (Witt, Wattenbarger, Gollattscheck, & Suppiger, 1994), economically secure, "democratic and egalitarian" society (Zwerling, 1976, p. xvi). For example, after World War II, the 1944 G.I. Bill of Rights provided significant financial aid to veterans who needed vocational training and employment, and who sought greater access to affordable higher education than state universities provided. In 1947, the Higher Education for American Democracy Report, prepared by the Truman Commission, stated that open-door access to free or low-cost higher education should be widely available and responsive to local community needs. The Truman Report suggested that the junior college change its name to "community

college” to reflect its goal as the primary identifier over the transfer function (Eaton, 1994, p. 30), which the terminal vocational programs did not provide (Brint & Karabel, 1989).

At the end of the Cold War, when the Soviet Union launched Sputnik—the world’s first artificial satellite to orbit the earth, the U.S. responded to the competition by passing the 1958 National Defense Education Act (NDEA). The NDEA focused on advancing college education in science and math and on increasing student access to higher education (it also gave federal support to improve elementary and secondary education). America’s next major period of interrogating democratic spirit and success occurred during the Civil Rights movement. Awareness of race-based inequality in education reached its peak. In 1965, authorization of the first Higher Education Act, precursor to the current Pell Grant, significantly increased funding to community colleges and students for need-based financial aid in order to expand college access (Geiger, 1999; Vaughan, 2000).

Traditionally, the highest level of degree awarded by the community college has been the associate’s degree (Cohen & Brawer, 2003). Interestingly, over half of the 1999-2000 bachelor’s degree recipients in this country attended a community college prior to transferring to a senior institution to earn their baccalaureate degrees (McPhee, 2006). Recently, the baccalaureate degree has been seen as the new standard for entry into the middle class (Bailey & Morest, 2006), and for many people, it is “seen as the only path to a good job” (Immerwahr & Johnson, 2007, p. 2), thereby signifying workers’ success in and adaptability to a global economy with ever-changing job demands and technology (Levin, 2001). A recent Bureau of Labor Statistics study indicates that nearly half of all

new employment will be in high-skill jobs that require advanced learning (Reindl, 2007). In a country that prides itself on its image of equal opportunity and perfect competition in an egalitarian society, the demand for 4-year degrees has once again exceeded supply. In order to increase the supply of baccalaureate-trained workers and to increase the access of the working class to the baccalaureate, the role of a few community colleges in this country has recently further evolved.

The recession and subsequent labor shortages of the early 1990s led governments in North America to consider new ways to retrain the existing workforce to compete in an increasingly specialized global market. Interested in training their local workforce without excessive spending, in the early 1990s Canada led the way (Walker, 2007) by offering the first sizable wave of community college baccalaureate degrees in North America.¹ In 1994, the Department of Advanced Education and Career Development in the Canadian province of Alberta introduced an applied community college bachelor's degree program combining 3 years of formal instruction with 1 year of related supervised and accredited work experience (CCBA Beacon, 2001). In 1995, British Columbia also passed legislation allowing community colleges and technical institutes to grant their own specialized 4-year degrees. This was described as a way to increase access to the baccalaureate degree for interested and diligent local students.²

¹Actually, the Fashion Institute of Technology in New York City in the 1970s was the first 2-year college in North America to offer a baccalaureate degree (Townsend, 2005, p. 180). However, it was an anomaly because it was only focused on the fashion industry (Gonzales, 2005, p. 6; see also Call, 1997) and did not spark the current wave of community college baccalaureate degrees, which started only in the 1990s.

²The baccalaurization movement in Canada has important distinctions from its U.S. counterpart. In Canada, the term "college" has traditionally been used to describe institutions offering programs up to 3 years in either skills training or in some provinces up to 2 years of university transfer courses (CCBA Beacon, 2001, p. 2). However, in the U.S., community colleges have traditionally been defined, according to the Carnegie classification, as offering programs of up to 2 years in duration. Therefore, the vertical

In the U.S., the community college baccalaurization movement began slowly in a few isolated institutions. In 1993, Utah Valley Community College and West Virginia University of Parkersburg obtained approval from their respective state governing boards to offer the baccalaureate degree (Floyd & St. Arnauld, 2007). In 1998, Westark College in Fort Smith, Arkansas³ was granted legislative approval for its first applied bachelor's degree program. In 1999, Great Basin College in Elko, Nevada, while remaining primarily committed to its original community college mission, began offering a baccalaureate degree in education in order to reduce local teacher shortages in that isolated mountain region (Barnett, 2002).

Three years later, this new community college baccalaureate model was approved by the Florida legislature, when Senate Bill 1162 gave St. Petersburg College authority to grant baccalaureate degrees in select fields, including K-12 education, nursing, and other fields selected by the St. Petersburg College Board of Trustees. In that same legislation, a more complicated process was established whereby other Florida community colleges could "petition the Florida Board of Education (FLBOE) for authorization to offer baccalaureate programs in high-demand areas of workforce need" (Burrows, 2002, p. 7). However, according to Florida statute (Chapter 1007, Section 33), "the primary mission of a community college, including a community college that offers baccalaureate degree programs,...[was] the provision of associate degrees that provide access to a university." St. Petersburg College began enrolling students in their new teacher education

expansion of Canadian colleges to baccalaureate-granting institutions was a different, and perhaps smaller, stretch for their 3-year degree programs than for applied 2-year degree programs in the U.S.

³Westark College no longer exists; it was converted into the Fort Smith campus of the University of Arkansas and Utah Valley State College is the new name for that converted institution.

baccalaureate programs in Fall 2002. In January 2007, the two boards which oversaw higher education in Florida agreed that community college baccalaureate degrees would limit their focus to the specific fields of nursing, teaching, and applied science. Specific examples include a BAS in Supervision and Management, Health Services Administration, Public Safety Management, and Information/Technology Management (Florida Department of Education [FLDOE], 2010). In 2009, Florida legislation was revised and the primary mission of the community college was expanded to include the provision of upper division coursework and the awarding of baccalaureate degrees (Florida Statutes, 2009). In addition, the focus on specific fields of employment was no longer mentioned, and the criteria were promulgated for approval by the new Division of Florida Colleges (which was designed to replace the Florida Community College System as it transitions into an undergraduate-focused State College System) along with SACS (Southern Association of Colleges and Schools) standards as the regional accrediting body of degree granting higher education.

Community College Involvement in Teacher Education

Prior to 1940, when baccalaureate degrees were not required for certification of K-8 teachers, as many as 60% of teachers in several states were trained in 2-year colleges (Hutcheson & Pedersen, 2001, in Floyd & Walker, 2003). Although the quality of junior college teacher education graduates was widely accepted (Floyd & Walker, 2003), normal schools became responsible for teacher education and simultaneously were granted 4-year college status. Hutcheson (2002) and Floyd and Walker (2003) connect the community college's current involvement with alternative certification and teacher

preparation to its long history and commitment to reducing teacher shortages over the past century.

Currently, the community college serves four roles in teacher preparation. First, the community college offers pre-service teacher education in the form of lower-division education coursework to students, who then may transfer to state universities to complete baccalaureate degrees in teacher education. In fact, over one quarter of the teacher education baccalaureate degrees awarded in 1999 went to individuals who first attended a community college (Phillippe & Sullivan, 2005, in Townsend, 2007). Second, select community colleges have recently started offering their own baccalaureate degrees in teacher education; the limited research on this aspect is described in this study. Third, some community colleges offer alternative certification for baccalaureate degree holders who wish to start teaching careers. Finally, many community colleges have long offered continuing education coursework for in-service teachers.

U.S. Teacher Shortages

Over the past decade, even as the importance of education for preparing the workforce for a new “knowledge-based economy” (Coulter & Vandal, 2007) was being realized, the U.S. was suffering a severe teacher shortage. In 1999, the National Center for Education Statistics (NCES) had predicted that by 2008-09, public school classrooms would need an additional 2.4 million new teachers (Hudson, 2002). Currently, teacher shortages are expected to increase as student enrollment grows due to population growth and immigration, particularly in urban areas. In fact, by 2015, NCES predicts that U.S. public schools will need 4 million new K-12 teachers (Hussar & Bayley, 2006). Additionally, both federal and state requirements to reduce class size, implement a

universal pre-Kindergarten, and raise teacher qualifications add to an increased demand for new teachers.

For example, the federal No Child Left Behind Act of 2001 mandated that every public school teacher would have to be “highly qualified” by no later than the end of the 2005-06 school year. This legislation expected every teacher to be state-certified and to have a demonstrated knowledge in the subjects taught by majoring in the subject in college, passing a subject knowledge test or obtaining advanced certification in it (National Association of Community College Teacher Education Programs [NACCTEP], 2004). Although that legislation is hotly debated and delays, waivers, and exceptions in compliance have ensued, performance accountability at the level of K-12 teacher preparation is under strict scrutiny, particularly in the fields of math and science where U.S. workers are criticized for losing their competitive advantage in the global marketplace. To further compound the teacher shortage problem, high rates of teacher attrition and retirement are reducing the teacher supply (Florida Board of Education [FLBOE], 2005). In 2000, the U.S. Department of Education predicted that nearly 40% of public school teachers will have retired by 2010 (Allen, 2002, in Townsend, 2007). The National Commission on Teaching and America’s Future reports that more than 30% of teachers leave the field within their first 5 years of teaching (Townsend & Ignash, 2003), and that percentage increases to 50% in large urban districts. The shortages are particularly severe in urban areas with high rates of low-income and minority populations (Floyd & Walker, 2003; Hudson, 2002).

Mihans (2005) explains that previous research cites two main reasons for teachers leaving the field of teaching: a lack of quality teacher preparation (Darling-Hammond,

Chung, & Frelow, 2002) and a lack of job satisfaction. Two subject areas with great teacher shortages throughout the country are secondary math and secondary science. Although math and science teacher certification requires specialized subject matter training, many of those actually teaching those subjects do not have the specific advanced training required (Ingersoll, 2000; Zinth & Dounay, 2006). High school students who learn math well will be better prepared with the reasoning and computation skills they need for future college and for work in the science, engineering, and technology fields (Forman & Steen, 2000). Better quality education in science, technology, engineering, and math (STEM) is critical for global competition and national security (Patton, 2005).

In response to growing local labor shortages, community colleges in 17 states, including 14 community colleges in Florida (as of Fall 2009), have begun offering baccalaureate degrees in teacher education as an effort to increase the overall number of individuals certified to teach⁴ (Florida Department of Education [FLDOE], 2009). Out of those 14 Florida community colleges, 9 were granted state approval (as of March 9, 2010) to offer baccalaureate degrees in at least one program of teacher education (FLDOE website, 2010). This approach helps people in local areas gain access to the baccalaureate education necessary to become teachers, thereby enhancing the education of both new teachers and the local K-12 students whom they teach. Furthermore, studies have shown that the benefits of parents' higher baccalaureate achievement rates positively affect many dimensions of their children's lives as well, including educational attainment and even the propensity to get to work on time (Becker, 2008). In 2005, the first published book focusing on community college baccalaureates in North America,

The Community College Baccalaureate: Emerging Trends and Policy Issues (edited by Floyd, Skolnik, & Walker) and the Office of Program Policy Analysis and Government Accountability's (OPPAGA) (Authorizing community colleges..., 2005) extensive report, explained that "because Florida's community college baccalaureate programs are still relatively new, there is insufficient data to determine what extent they have improved degree completion rates or increased the number of non-traditional students who obtain baccalaureate degrees" (p. 7). Given that new community college baccalaureate degree programs purport to address some of the issues related to local teacher shortages and limited baccalaureate access, further research that ascertains information on the characteristics, experiences, and quality of teacher education candidates and graduates is needed.

Problem Statement

The primary rationale offered for the establishment of community college baccalaureate degree programs has been addressing local labor shortages with a new population of students who previously did not have access to the baccalaureate (Walker, 2002). Although community college baccalaureate degree programs are now being offered in increasing numbers and subject areas, little empirical research has been conducted on the quality of the academic experiences and professional preparation of the students and alumni of these programs, including those specifically related to community college baccalaureate degrees that focus on teacher preparation. While the shortage of

⁴In February, 2008, the Florida Board of Education approved baccalaureate degree offerings at two more community colleges, Broward and Palm Beach Community Colleges, to begin in 2009 (Florida Department of Education [FLDOE] website, 2008a).

teachers is growing in the U.S., particularly in urban areas with high rates of poverty and underrepresented populations (Hudson, 2002) and in secondary math and science (Furlong, 2003), little is known about what individual working teachers believe could improve teacher education and reduce teacher attrition. In addition, although the restricted access to and attainment of the baccalaureate degree for community college students and non-traditional baccalaureate aspirants are problematic, research from the students' perspective of the new community college baccalaureate degree program as a potential solution to the problem is limited. Furlong (2005) recommends an examination of "the relationship between the community college baccalaureate and comparable programs in four-year institutions" (p. 126) in order to fully assess the strengths and weaknesses of the new community college baccalaureate model. Therefore, the problem which this study seeks to address is: How can alumni perceptions of their education programs and competencies be assessed and analyzed to improve teacher quality?

Purpose of This Study

The purpose of this study was to examine graduates' academic experiences in teacher education programs in the first community college in Florida to offer its own baccalaureate degree, St. Petersburg College, and to compare them with the experiences of graduates of a nearby state university, The University of South Florida. Community college baccalaureate programs were designed to help reduce local labor shortages in such fields as teaching and to increase the access of local people to the baccalaureate degree (Floyd & Walker, 2003). This study explored how the teacher education graduates who were found working in classrooms and educational settings experienced this new baccalaureate delivery format. In 2000, when deliberating the accreditation of a new

community college baccalaureate program, the Higher Learning Commission's North Central Association of Colleges and Schools (NCACS) focused on evaluating whether or not the program actually enhances access. Thus, to explore progress towards the goal of increased access to the baccalaureate degree in education for a new population of students, comparisons were made in this study between the backgrounds of students in this new program model and those of students in a nearby state university program (University of South Florida).

In addition, to assess the quality of teacher education and alumni satisfaction, a survey was administered to teaching graduates of both institution types assessing the perceived quality of their college, as well as their preparation to teach, both seen as ways to reduce teacher attrition (Darling-Hammond, Chung, & Frelow, 2002; Mihans, 2005). Comparisons were made between the perceptions of the respondents from these two institutions about their preparation, including the "skills, capabilities, and knowledge" that the baccalaureate programs promised to deliver (*Baccalaureate education...*, 2000, p. 4). Moreover, the strengths and weaknesses of both models illuminate the educational experiences of alumni from Florida's first baccalaureate granting community college and show how their experiences compare with those of traditional state university graduates. With this understanding, improvements may be implemented in the examined programs, in future community college baccalaureate programs, and in programs serving similar student populations that aim to increase baccalaureate attainment and reduce local teacher shortages, thereby ultimately improving public education for future students and teachers.

Research Questions

When considering the evolving role of community colleges and the national issues of equity and specialized labor shortages that these colleges hope to address, it is critical to examine how teachers are being prepared. Therefore, the primary research question that guided this exploratory study is: How does the perceived quality of teacher preparation baccalaureate programs at one community college compare with that at a nearby university? Are there differences in the ratings given by community college baccalaureate and university graduates who were found to be teaching of their abilities and preparation? Specific questions drawn from this main question are:

1. How do the teaching graduates from both institutions rate the quality of their programs?
2. How do the teaching graduates from both institutions rate their teaching competencies⁵?

Location and Scope of Study

Florida is the most fruitful state for research on the community college baccalaureate degree because it was one of the first and most aggressive states to implement these programs (Burrows, 2002; Coulter & Vandal, 2007; Floyd & Walker, 2003). In fact, Florida currently has 14 community colleges (Florida Department of Education website, 2010; also see footnote 4) approved to offer baccalaureate degrees,

⁵The term “teaching competencies” in this study is meant to refer to subject matter knowledge, pedagogical knowledge, teaching skills, as well as professional attitudes and values that are directly related to job performance (Damon, 2007; TEAC website, 2008). For a more complete definition of competencies, see the Definition of Terms section in this chapter.

more than 16 other states (Community College Baccalaureate Association [CCBA] website, 2008). More continue to seek and obtain approval. In addition, the Community College Baccalaureate Association (CCBA), which is based in Florida, strives “[t]o promote better access to the baccalaureate degree on community college campuses, and to serve as a resource for information on various models for accomplishing this purpose” (CCBA website, 2007). In addition, Florida is known as a “bellwether state,” launching several innovative policies that have later provided models for replication by other states to promote college access and accountability. Florida was also the first state to offer a community college baccalaureate degree program in teacher education based in an urban area. St. Petersburg College (SPC) is the first community college in Florida to offer the baccalaureate degree in teacher education; it has the largest number of graduates to date and therefore was chosen to be the focus and locale of the present study.

Interestingly, areas with higher percentages of baccalaureate attainment have not only enhanced the financial security of educated individuals, but may benefit their local areas through greater tax contributions. In addition, teachers who pursue teaching in their own communities may be more highly invested in and have better understanding of those communities (TQ Research & Policy Update, 2006). In fact, Boyd, Lankford, and Wyckoff (2005; Locklear, 2007) found that over 60% of teachers accepted their first teaching jobs in schools within 15 miles of their hometown or the town in which they completed college. This may, in turn, increase both the effectiveness of their teaching practice and decrease the marked teacher attrition rate in high-poverty and urban schools. A focus on these environments, then, is key for examining the issues this study addressed.

Florida's Problem: Limited Supply of Teachers and Baccalaureate Programs

With a total population of close to 17 million, Florida operates the nation's 4th largest statewide public Pre-K-12 school system (Authorizing community colleges..., 2005). Nearly 42,000 new students enter Florida's public Pre-K-12 schools annually (TeachInFlorida.com, 2005). In 2007, it was predicted that the Florida public school system would have a shortage of more than 220,000 teachers over the next 10 years, with the largest shortages in elementary education and exceptional student education (FLDOE, 2007b).

Despite these predictions, the Florida State University System (SUS) teacher education programs only produced 4,453 graduates in 2006-07. In addition, 1,305 teachers were produced by Independent Colleges and Universities in Florida (ICUF) in 2006-07 (FLDOE, 2008b). Because most new teachers major in elementary education (Barnett, 2002; Furlong, 2003), subject areas with particularly large teacher shortages and high rates of teacher attrition (Guarino, Santibanez, & Daley, 2006; Ingersoll, 2000) in the nation, and in Florida in particular, are secondary-level math and science⁶ and special education (Coulter & Vandal, 2007). Despite these shortages, only 60% of students who graduate from teacher education programs go directly into teaching positions (Coulter & Vandal, 2007). Furthermore, prior to the year 2000, Florida had concentrated public baccalaureate-granting authority in only 11 branch campuses of the SUS, which is a smaller number of institutions per capita than other states,⁷ and the campuses were not

⁶In Florida, in the areas of secondary math and secondary science, an indicator of the shortage of highly-qualified teacher lies in the numbers: more than 10% of current teachers and more than 10% of new hires are teaching without certification in the appropriate subject area (FLBOE, 2005, Tables 4 and 5).

⁷In 2005, Florida ranked 20th in terms of the number of branches of the SUS (Authorizing community colleges..., 2005).

located within commuting distance for many baccalaureate aspirants (Office of Program Policy Analysis and Government Accountability [OPPAGA]). As the population grew, particularly in urban areas, traffic congestion and limited public transportation restricted access for some non-traditional students (Authorizing community colleges..., 2005). Consequently, Florida ranks 46 out of 50 states in the production of baccalaureate degree graduates (Winn & Armstrong, 2005), with only 22.3% of individuals over age 25 earning a bachelor's degree or higher in the year 2000 (U.S. Bureau of the Census, 2001, in Furlong, 2003).

Urban areas are further challenged by teacher shortages because of high teacher turnover in demanding work environments that serve larger proportions of ESL, immigrant, minority, low-income,⁸ and special needs students (Guarino, Santibanez, & Daley, 2006; Ingersoll, 2000; Recruiting New Teachers [RNT], 2000). The state of Florida is known for its large population growth. The influx of immigrants, particularly from Spanish-speaking Cuba and other Caribbean islands lying to the south, increases the number of new students and exacerbates the need for new teachers. Those who have immigrated to the U.S. often face additional challenges in their adjustments to new curricula, teaching methods, and institutions. Young immigrants in the public school system must simultaneously adjust to new housing, employment, neighborhoods, and social networks. In 2005, Leslie Roberts, former Dean of Education at Miami Dade College, noted the continuous need to work with college-level immigrant students who have limited English language proficiency (Finkel, 2005). Hagedorn's (2003) research on community college students in a major city suggests that the academic "diversity" or

⁸The teacher attrition rate is about 50% higher in low-income schools than in wealthier schools (Ingersoll, 2000).

“differential status of students due to academic ability, prior academic experience, academic propensity, and academic opportunity” (p. 2) may be more predictive of academic success than ethnic diversity. Shortages in ESL teachers, bilingual education, and special education teachers (Coulter & Vandal, 2007) to meet the needs of academically-diverse students are also high.

Florida’s Solution: Increased Accountability, Access, and Teacher Supply

Faced with such challenges, Florida has developed a number of innovative policies aimed to address issues of accountability and access. First, Florida has an unusual and innovative new governance structure to avoid duplication and encourage communication. Instituted by the Florida legislature in 2002, this system keeps the “K-20” education system⁹ institutions reporting to one state-wide body focused on institutional accountability (TaxWatch, 2006). The Southern Association of Colleges and Schools (SACS), a regional branch of the national Commission on Colleges accrediting body, has jurisdiction over Florida and is known to have rigorous requirements designed to promote increased accountability and outcomes assessment. In addition, there is a greater focus on state accountability in Florida with the Florida Sunshine Acts, which provide regular publicly available reports from the Commissioner of the FLDOE, the Chancellor of Florida Colleges, Florida’s legislative Office of Program Policy Analysis and Government Accountability (OPPAGA), and watchdog agencies such as TaxWatch. In addition, the Florida Community College System (FCCS) maintains a high-quality comprehensive records system for all students ranging from descriptive data on student

⁹The term “K-16” would include baccalaureate education, but a “K-20” system is meant to include coordination at the graduate-school level. The universal pre-Kindergarten is a new federal requirement.

characteristics to data on basic skills and placement levels, as well as transcript data on every class taken by every student, and student responses to select national instruments such as the Community College Survey of Student Engagement (CCSSE) (McClenney & Marti, 2006). All of this increased reporting and visibility facilitates the potential for other states to learn from Florida's innovative higher education access programs.

Accountability-driven reporting must be followed by meaningful results and action in order to fully address the issue of educational equity. The Florida community college system was actually developed with geographical access in mind as it was designed within commuting distance of 90% of the population (Authorizing community colleges..., 2005). As for innovation, Florida already has a common statewide course numbering system (SCNS) between its community college and State University System (SUS), offering several equivalent courses (Winn & Armstrong, 2005). In addition, Florida's SUS offers articulation¹⁰ of courses among institutions, including guaranteed transfer of all 36 lower-division general education credits (Furlong, 2003) taken at the community college by students who pursue baccalaureate degrees in the Florida SUS.¹¹ In some instances, Florida community colleges and SUS campuses are even co-located to further facilitate student transfer.¹² In 2005, 22 of the 28 Florida community colleges partnered with at least one branch of the SUS to offer close to 90 baccalaureate degrees.¹³

¹⁰Articulation is "[t]he alignment of instructional programs so that students can progress from one educational level [or institution] to another without loss of credit" (Pletcher, 2003, p. v).

¹¹Furthermore, Furlong (2003) explains that in 1996, the Florida legislature passed a bill aimed specifically at facilitating the transfer process and the number of baccalaureate degrees awarded in teacher education. This bill, known as "time to degree," identified three lower-division courses adopted statewide that would be automatically accepted as part of the core requirements of a baccalaureate in teacher education, namely Introduction to Education, Instructional Technology, and Diversity.

¹²Florida pioneered the development of concurrent-use partnerships as far back as 1968 with Brevard Community College and University of Central Florida.

¹³Factoring in the number of community colleges that partner with private colleges to offer baccalaureate degrees, then 27 of the 28 Florida community colleges host baccalaureate degree programs.

Furthermore, Florida offers several innovative options to make post-secondary education more affordable to its citizens. In addition to charging lower tuition¹⁴ per credit for residents than many other states, Florida offers pre-paid tuition plans and generous merit scholarships. In fact, Florida leads the nation in the production of associate degrees (Marine & Jameson, 2004). Presently, more than half of new teachers graduating from the state universities are community college transfers, but the demand for teachers in Florida exceeds the capacity of traditional university programs (Coulter & Vandal, 2007).

To help address the existing and anticipated baccalaureate-trained labor force needs, particularly teacher shortages, Florida's community colleges have begun offering several alternatives to traditional state university teacher preparation programs. Among these models are various short non-accredited programs for individuals who already have baccalaureate degrees and who simply wish to earn the credentials required to become state-certified teachers.¹⁵ In addition, some local school boards in Florida offer their own teacher preparation programs. As part of another common model known as the University Partnership Center (UPC), faculties at 4-year institutions may agree to offer some of their institution's upper-division coursework on the community college campus (*Recruiting teachers of color*, 2003; Floyd & Walker, 2003). The baccalaureate degree from a UPC, like a traditional transfer degree, is conferred by the senior institution. Incidentally, St. Petersburg College (SPC) has a large and successful UPC offering a plethora of

¹⁴Florida Resident Access Grants (FRAG) subsidize tuition for residents so that the Independent Colleges and Universities of Florida (ICUF) only charge tuition and fees that range from \$51 to \$173 per credit hour, with a median of about \$96 per credit hour. In comparison, for upper-division courses, Florida community colleges charge about \$61-\$73 per credit hour, with a median of \$70 (OPPAGA, 2005, p. 5).

¹⁵A popular new alternative teacher certification program that is neither accredited by the national Commission on Colleges' Southern Association of Colleges and Schools (SACS) nor typically credit-bearing is the Educator Preparation Institute (EPI). This was first offered as a 1-year program at 25 of the 28 Florida community colleges in the 2005-06 academic year. Interestingly, nearly one-third of all new teaching certificates in this country are now being earned through alternate routes (Aydin & Rajchel, 2005).

baccalaureate and even graduate degrees; to supplement those offerings and to better meet unmet labor needs, SPC also chose to confer its own baccalaureate degrees. This study focused on SPC's recent community college baccalaureate model, in which these degrees are conferred by the community colleges themselves, at a cost of \$965 less per year than a baccalaureate degree education at one of Florida's state universities (Armstrong, 2006). Shortly after this study was designed and approved for data collection, Florida passed legislation which merged the Florida Community College System and the state 4-year public post-secondary institutions not offering graduate degrees into an undergraduate subsystem of state colleges in Florida called the Florida College System (FCS). The stated purpose of that legislation (Chapter 2008-52) is "maximizing open access for students, responding to community needs for post-secondary academic and career degree education, and providing associate and baccalaureate degrees that will best meet the state's employment needs."

The 2008 legislation also created the State College Pilot Project and FCS Task Force. These two groups were charged with making recommendations related to the criteria for a community college to transition into a state college, including a baccalaureate degree program approval process to meet local and regional and state workforce needs and a cost-effective funding model. In addition, their reports offered other critical recommendations that have been addressed by statutory amendment including meeting certain criteria to use the designation "college" or "state college," maintaining their historical mission of open-door admissions for lower-division courses, revising their primary mission to include upper-level instruction, and awarding baccalaureate degrees. Because this study is specifically focused on St. Petersburg

College, it is important to note that although there was a recommendation that there be uniform application of statutory baccalaureate program authority, SPC's unique authority allowing it to establish baccalaureate degree programs without State Board of Education approval was not repealed (Florida Senate Higher Education Appropriations Committee, 2009). In fact, SPC offers a wider range and larger number of BS degrees in education and BAS degrees than any of the other institutions in the Florida State College System (FLDOE, 2010) (see Table 1).

Table 1. *List of 22 of St. Petersburg College's Approved Bachelor's Degrees*

| Degree | Program Name |
|--------|--|
| BS | Elementary Education |
| BS | Exceptional Student Education |
| BS | Middle Grades Mathematics |
| BS | Secondary Mathematics |
| BS | Middle Grades Science |
| BS | Secondary Biology |
| BS | Business Technology Education |
| BS | Technology Education |
| BS | Educational Studies |
| BS | Nursing |
| BAS | Banking |
| BAS | Business Administration |
| BAS | Dental Hygiene |
| BAS | Health Services Administration |
| BAS | International Business |
| BAS | Management and Organizational Leadership |
| BAS | Orthotics and Prosthetics |
| BAS | Paralegal Studies |
| BAS | Public Safety Administration |
| BAS | Sustainability Management |
| BAS | Technology Management |
| BAS | Veterinary Technology |

Significance of the Study

This study contributes to the limited empirical research available on the new community college baccalaureate programs in this country. This study is unusual in that it gives “voice” to actual graduates of such programs, thereby enhancing the effectiveness of a new program, guiding public policy, and planning future programs. This study is also unique because it examines the outcomes of new ways to address the nation’s secondary and post-secondary challenges in education, specifically local teacher shortages and limited baccalaureate degree access and attainment.

Thus, the present study sought to help reduce the void in the empirical research, not only through quantitative analysis, but also by documenting the yet-unheard voices of new community college baccalaureate alumni. Increasing access to the baccalaureate degree is the main purpose of the baccalaurization of the community college. If the new community college baccalaureate degree programs are only serving students who could earn baccalaureate degrees on their own, utilizing financial resources, time, and legislation is not so vital. For policy reasons, if the community college baccalaureate degrees are increasing access, evidence of their operation and outcomes could support the development of potential future community college baccalaureate degrees.

Therefore, this study sheds light on an innovative new program designed to equip more teachers with credentials to help public school students reach their academic potential. Guarino, Santibanez, and Daley (2006) argue that the mission of the public education system in this country is to provide high-quality education to every student. Consequently, the present study may help inform the decision-makers who dispense

federal, state, and local funds, as well as citizens who contribute to those coffers, of the challenges and opportunities that are being addressed in the Pre-K-16 educational system.

Definition of Terms and Acronyms

Accreditation. Defined as approval by a regional branch of the Commission on Colleges, accreditation is based on numerous requirements including: peer review, site visits, follow-up on recommendations for improvement, and a regular detailed reporting schedule, all of which help insure that accredited programs uphold certain standards. Additionally, specialized accreditation may be granted by relevant professional associations for teacher education programs such as the National Council for Accreditation of Teacher Education (NCATE) or the Teacher Education Accreditation Council (TEAC).

Community College. “A postsecondary institution...with a mission to serve the community through academic and other programs. Traditionally, community colleges are authorized to confer the associate’s degrees (AA and AS) as well as certificates” (Hagedorn, 2004, n.p.). Typically, community colleges offer open admissions, are public, and offer transfer and vocational programs as well as courses that do not bear collegiate credit. Due to legislation that became effective in Florida in July 2009 (SB 2682), the term *state college* in Florida is now being used interchangeably with *community college*. In addition, this recent legislation revised the primary mission of the Florida Community Colleges “to include upper level instruction and the awarding of baccalaureate degrees as authorized by law” (SB 2682).

Community College Baccalaureate (CCB). Townsend (2005) defined the CCB as the “only bachelor’s degree awarded by a community college” (p. 179). She specified

that when using the term CCB, she did “not mean a bachelor’s degree awarded by a four-year college or by a university in partnership with a community college” (p. 179).

Community College Baccalaureate Degree (CCBD). Used synonymously by the author with CCB (see above definition). Floyd (2005b) adds that in this case, the community college is given the full authority to confer the baccalaureate and is responsible for meeting the respective accreditation, licensure, and certification requirements. K.P. Walker, President of the Community College Baccalaureate Association (CCBA), offers a technical note: “[t]he degrees are not community college bachelor’s degrees. They are baccalaureate level degrees granted by community colleges. [Therefore, he explains] they are not inherently different from bachelor’s degrees granted by universities” (Walker, 2006, p. 8). Sometimes the baccalaureate degree is referred to as a 4-year degree, although the time to complete it may vary among students.

Competencies. Personal characteristics (skills, knowledge, traits, and motives) that predict effective performance (workitect.com website, 2008). In the present study, this term is meant to encompass the full range of categories of performance that are utilized to evaluate effective teachers encompassing, but not limited to, NCATE’s 2008 Standards “skills, knowledge, and dispositions” which includes “[p]rofessional attitudes, values, and beliefs...[that] support student learning and development” (NCATE website, 2008). This term is also meant to include TEAC’s 1999 Quality Principles, specifically “caring, competent and qualified” (Murray, 2006) teachers as evidence of their learning of “subject matter knowledge, pedagogical knowledge, and caring teaching skill” (TEAC website, 2008). In addition, the term *teaching competencies* includes the list of 16 performance indicators for effective educators put forth by Florida’s legislature in statute

1012.52. Furthermore, this term is meant to encompass the 12 Florida Educator Accomplished Practices (FEAPs) which are closely linked with the Interstate New Teacher Assessment and Support Consortium's (INTASC's) Core Standards established by the Florida Department of Education as the basis for assessing teacher performance (Tomei, 2007). Moreover, the term includes all of the competencies and skills required for teacher certification in Florida and used as the basis of the Florida Teacher Certification Examinations in the Professional Education Test, the General Knowledge Test, and the Subject Area Examinations (Tomei, 2007). The term *competencies* also refers to teacher candidates' professional values, beliefs, ethics, and attitudes that are directly related to their job performance (Damon, 2007), for example, a commitment to caring for all students on an "interpersonal level" and to social justice or all students' right to an equal quality education on a societal level (Damon, 2007).

Junior College. The original name for a post-secondary institution focused on offering the first two years of a baccalaureate in education. In 1947, "when the Truman Report called for the expansion of the junior college mission, the movement to change the name to 'community' college began" (Burrows, 2002, pp. 9-10). Also refer to *Community College* listed above.

Native Student. "A student whose initial college enrollment was at a given institution of higher education and who has not transferred to another institution of higher education since that initial enrollment" (McDonough, 2000, p. 25).

National Database Instrument. This refers to the National Survey of Teacher Education Graduates. The survey responses are stored in the national database at Ohio State University (Rahman, 2000).

Non-traditional Student. Non-traditional students have included non-Caucasians, students over the traditional college age (18-22), working students, non-residential students, married students, students with children, self-supporting students, students for whom English is not native, and those with a physical, mental or emotional disability. As defined, non-traditional status describes the full array of community college students. Hagedorn (2004) argues that “non-traditional student” is “[a]n out-dated term generally used for students who do not fit the profile of the typical university student” (n.p.). Hagedorn suggests that given the lack of differentiation among community college students, as well as negative connotations (albeit unintended) when referring to individuals with a “non” descriptor, the term “non-traditional” should be dropped from community college vocabulary. Furthermore, Hagedorn (2004) recommends that the non-traditional nomenclature be replaced by “diverse student categories” (n.p.). In this study, both terms are used interchangeably.

Senior Institution. Any college or university that offers the equivalent of the final two years of coursework culminating in conferral of the baccalaureate degree. A senior college or university may award additional degrees, including associate’s or master’s degrees, but are noted as senior institutions in order to highlight the capacity to confer baccalaureates. In this study, the terms *4-year* and *senior institution* may be used interchangeably.

State University. In Florida, this terminology is used to identify senior research institutions that offer graduate level degrees from Florida’s State Colleges and Community Colleges which are strictly undergraduate.

Vertical Extension. “[A]lso known as ‘upward degree mobility,’ vertical extension involves the transition of an institution from one organizational structure to another for the purpose of offering a higher-level academic degree” (Roueche, 1964, in Burrows, 2002, p. 10). In this study, as in that conducted by Burrows, vertical extension, or vertical expansion, is “from the associate to the baccalaureate level” (p. 10).

Assumptions

All studies are built upon assumptions that may inadvertently shape them; therefore, it is important to articulate those assumptions known to the author from the beginning of the research project. The author did not feel that she had enough first-hand knowledge about teacher preparation from the two different institutional types in Florida which were studied in order to form an opinion in advance about which venue their graduates may rate more favorably. This section delineates the set of assumptions that underlie the present study’s inquiry into the academic experiences of teacher education graduates:

1. Participants are truthful about their experiences in and with education baccalaureate programs and in the teaching force.
2. Participants want to make their experiences and perspectives known to others and to the researcher.
3. Institutions are willing to share their pertinent documents, data, information, and access to alumni.
4. Individuals are eager to learn more about community college baccalaureate degree participants and the adequacy of those new programs.

Delimitations

The delimitations of the study include a description of the population to be studied and also note any potential for the findings to be generalized. It is particularly important to delineate that this study focuses on issues of alumni academic experience in two different baccalaureate teacher education delivery models (community college-based baccalaureate and state university system baccalaureate programs). The study examined two institutions: the first teacher education community college baccalaureate degree-granting institution in Florida (St. Petersburg College [SPC]) and one nearby state university program (University of South Florida [USF]). Furthermore, by focusing on the first community college baccalaureate degree-granting institution in Florida, this study was delimited geographically to St. Petersburg College in Florida, and the neighboring cities and rural counties in that region that it serves. This study was further delimited to the disciplines in which St. Petersburg College began offering the teacher education baccalaureate in 2004, including math and science as well as special and elementary teacher education. This study is also delimited to the graduates from 2004-08 of the University of South Florida in the same four majors (it does not include the voices of students who may have enrolled in these programs but did not complete them). In addition, this study is further delimited to just those graduates who were found to be working as classroom teachers or were found to be working in an educational setting. It is important to note that in order to fully operationalize teacher and teacher preparation program quality, a wider range of variables beyond the perspectives of recently trained teachers may need to be incorporated. However, this study preliminarily explores teacher quality just from the perspective of recent teacher education program graduates of two

institutions. Therefore, to the extent that the SPC sample for the present study is representative of the population of SPC teacher education baccalaureate graduates within the first four majors, and during that same 5-year period, it may be possible for some generalizations to be considered. This study did not examine other major fields of study outside of teacher education in which students obtained community college baccalaureate degrees. It also did not look at teacher education baccalaureate graduates who completed their degrees after 2008. The study focused on graduates who were most likely to have had a chance to find employment as teachers and to those who actually did secure employment in the classroom or in an educational setting.

This study did not look at other types of community college teacher preparation programs, even though community colleges are broadening the teaching force in many other ways and are addressing local teacher shortages with alternatives such as Florida's new Educator Preparation Institute (EPI) programs (which offer further education and training to students with baccalaureate degrees in order to become teachers). This study did not look at teacher induction or mentoring programs or other ways to reduce teacher attrition, which also could reduce teacher shortages once teacher education students have graduated and begun working in the field. In addition, this study did not look at the graduates of teacher education programs who did not secure positions in the classroom or in educational settings.

The respondents of the survey were delimited to the known and accessible teacher education baccalaureate graduates who were found to be teaching or working in educational settings, from the class years 2004-08 of Florida's first community college

baccalaureate degree-granting institution and the neighboring state university, the University of South Florida.

Overview of Remaining Chapters

In Chapter II, the literature review initially presents background on the main constructs underpinning this study. First, the comprehensive and changing mission of the community college is explained to provide an understanding of the aims of the institution. Next, the performance accountability agenda in the U.S. is discussed, raising the question of whether community colleges are accomplishing their goals. Finally, using the lens of access and equity theory, the question of who is actually being served by the new baccalaureate programs in these community colleges is examined. The literature review includes existing research on community college baccalaureate programs in the U.S. and Canada generally, and the state of Florida specifically. Available research was included on alumni satisfaction and student experiences, comparisons of university and community college student characteristics and experiences, and the key ingredients of effective teacher education programs.

The research methodology, both quantitative and descriptive analysis, for this study is described in Chapter III, including descriptions of the sample, survey instrument, and methods of data analysis. The research started by analyzing institutional data describing student characteristics of community college teacher education baccalaureate programs and comparing them with university baccalaureate students. Next, surveys were conducted with alumni from both institutional types to uncover what they felt were critical features of successful academic teacher preparation to assess and contrast their self-perceived competencies and employment.

Chapter IV of the study presents the findings of the alumni surveys starting with the demographics of respondents by institution and then moves to a presentation of alumni experiences based on type of institution attended. Chapter V consists of an analysis of the findings and their relevance for the programs studied, future community college baccalaureate programs, and other programs serving similar populations. This chapter also offers a critique of the study and its implications, and presents recommendations for practice and future research based on the findings.

Chapter II

REVIEW OF THE LITERATURE

An explanation of the changing history and social role of the community college (Floyd & St. Arnauld, 2007, p. 22) is provided in this chapter. The discussion begins with the evolving mission of the community college, which recently expanded to include offering the baccalaureate degree. This is followed by an overview of the three main forces which fueled the development of the community college baccalaureate degree: globalization (Levin, 2001), the equity agenda (Bailey & Morest, 2006; Grubb, Badway, & Bell, 2003; Price & Wohlford, 2005), and the accountability movement (Dougherty, Kim, & Hong, 2002; Dowd, 2005; Educational Testing Service [ETS], 2004; Laanan, 2001).

The desire of policymakers and industry leaders to have the American workforce and economy remain competitive while facing a globalized labor market has pushed community college leaders to empower local people to increase their productivity and earning power with more specialized skills (Martinez, 2004). Such empowerment includes gaining secondary-level teaching skills in math and science that may work to contribute to both local and national comparative economic advantage.

The demand for the community college to implement social goals such as the equity agenda is discussed. The community college could be seen as the “great equalizer” (Bowles & Gintis, 1976; Mann, 1891, p. 251) of social, educational, and economic

opportunity, particularly in impoverished areas where diverse baccalaureate aspirants—based on such demographics as race/ethnicity, level of English language learning, socioeconomic class (Griffin & Hett, 2004), number of dependents, employment status, and age—may obtain greater access to baccalaureate degrees. In addition, local teacher shortages may be reduced by preparing more qualified teachers. This is imperative for bridging the equity gap in baccalaureate attainment as well as in high school performance and graduation rates through an improvement of the inferior performance of public K-12 education found in some urban areas. Related to this issue, the section also explains the pressure of increased accountability now mandating federal and state government expenditures to exhibit returns on investment in such forms as test and completion rates, while also requiring community colleges to present their outcomes on such measures as attaining baccalaureates and closing the achievement gap for different demographic groups. Levin's framework for understanding research on non-traditional students is also discussed in this section, as current understandings of social injustice and inequity have supported the vertical expansion of the community college.

The explanation of the forces behind the baccalaurization of the community college is then followed by a description of the debates for and against it. Supplementing this review is an in-depth description of the first research studies available on the new community college baccalaureate degree. The gaps in the small body of related research are also revealed. The final section of this chapter focuses on students' self-perceived competence and other ways that researchers measure effective teacher education. By the end of the literature review, it will be clear how this study builds upon the existing research. This study was meant to fill a void in the research on student experiences in the

first teacher education baccalaureate programs conferred by a community college in Florida as compared to the state university.

Mission of the Community College

Although community college missions have evolved since their inception to become increasingly comprehensive, two longstanding missions have widely remained: to “extend educational opportunity” (Gleazer, 1980, p. 7) and to prepare students for baccalaureate degree coursework (Eaton, 1994). Community colleges have been changing over time and continue to change, and this adaptability is also an essential part of their longstanding mission (Gleazer, 1980; Walker, 2002). Gleazer adds that viable community colleges are committed “to maintain a continuing relationship with learners, and they are community-oriented” (p. 7; see also Walker, 2005; Witt, Wattenbarger, Gollattscheck, & Suppiger, 1994). In fact, the mission of the community college today has evolved beyond the original transfer college function to include such wide-ranging functions as: “developmental education, adult basic education, English as a second language, education and training for welfare recipients and others facing barriers to employment, customized training for specific companies, preparation of students for industry certification exams, noncredit instruction, . . . small business development” (Bailey & Morest, 2003, p. 3) and “community service” (Bailey & Averianova, 1998, p. 7). Furthermore, most recently in Florida, the primary mission of the community college has expanded even further by becoming synonymous with undergraduate state colleges, offering selective upper-level instruction and baccalaureate degrees (SB 2682).

Employers use the acquisition of a baccalaureate degree as a proxy for determining candidates’ proficiency in English, math, and field-specific skills. With the

baccalaureate degree as a foundation, many employers believe that their workers will have the necessary communication skills and “cognitive complexity” (Eaton, 1994, p. 2) to solve, or at least be able to learn rapidly how to solve, new challenges that surface as a result of technological changes in industry. For many employers, baccalaureate-degreed workers are worth the added wages because they may be more reliable than their less expensive, and likely less skilled, counterparts. A recent study by the Advisory Committee on Student Financial Assistance (2002) found that “financial barriers prevent 48% of college-qualified low-income high school graduates” and 43% of middle-income high school graduates from attending a 4-year college. This is a total of 400,000 qualified potential baccalaureate aspirants who are unable to attend college. However, over half of those same low- and middle-income students have the financial means to attend a community college (Walker, 2007). Therefore, community colleges offering low-cost, widely-available, 4-year teacher training programs may be considered a “mission-compatible” way of preparing future generations of Americans to succeed in the face of increased competition and “restricted resources” (Bailey & Morest, 2006, p. 26).

Globalization as a Force Affecting the Community College

Globalization, as advanced by Levin (2001), is integral to considering the challenging forces which fueled the creation of the community college baccalaureate degree (Walker & Floyd, 2005). Globalization is “the process whereby the compression of time and space intensify social, cultural, and economic relations and there is increasing interdependence among societies and nation-states” (Levin, 2001, p. 78; Robertson, 1992). One might argue that more 4-year degrees incorporating technical skills and experience (Garmon, 2002; Walker, 2007) are needed for workers to remain competitive

in the face of increasing globalization (Zinth & Dounay, 2006), which has made business, such as manufacturing and sales, easier to conduct in other nations (Levin, 2001). Cost-effectiveness measurement and the pressure of running academic programs more like businesses have become commonplace in educational institutions. The focus now has shifted to the issue of return on investment (ROI), even in public higher education. In addition, in the age of nuclear weaponry, the need for world power and comparative advantage in technology is vital. As the American economy, society, and culture have become more international, so too have the students attending community colleges. Ruppert (2003) explains that, based on an analysis of data from the Organisation for Economic Cooperation and Development (OECD) prepared by the National Center for Higher Education Management Systems (NCHEMS), there is a specific “degree gap” that puts this nation at a disadvantage when compared to baccalaureate degrees produced by nations who are the top competitors of the U.S. (p. 1). In order to close that gap, colleges and universities in this country need to award 37% more baccalaureate degrees per year (Reindl, 2007). Based on the NCHEMS data analysis, the achievement gap could be closed and U.S. international economic competitiveness maintained if U.S. senior institutions could ensure that older, Black, Hispanic, and low-income college students progress and achieve the same level of baccalaureate attainment as White, traditional-age, and wealthier students, then U.S. international economic competitiveness could be maintained (Reindl, 2007). The rapid and powerful globalization of the economy, society, educational institutions, and the labor market is a force which undergirds the baccalaurization movement of the community college.

College Access, the Equity Agenda, and Non-traditional Students

The equity agenda has evolved as the population served by the community college has diversified. In fact, throughout the 20th century, an increasing percentage of the population has earned high school and college diplomas (Cohen & Brawer, 2003). Over the past century, there has also been a dramatic increase in the diversity of this country's population and college students (Cohen & Brawer, 2003). When community colleges were initially founded in the early 1900s, they primarily served a homogeneous student body of young, single, White American men from wealthy families with relatively similar academic preparation and educational goals. Since the Civil Rights movement of the 1960s, American democratic ideology has dictated that access to the American dream (Vaughan, 1989) should be available so that "any individual, no matter how humble the circumstances of birth, can rise as far as ability and hard work will take him" (Brint & Karabel, 1989, p. 223). Now colleges are encouraged to serve a far broader range of students in terms of age, race, national origin, native language, academic preparation, and academic goals (Walker, 2005). In addition, most of today's college students are juggling work and family responsibilities (Walker) and commute rather than live on campus. However, some rural regions of the country still do not have 4-year degree-granting institutions within driving distance, although "[t]wo years of post-secondary education are within the reach—financially, geographically, practically—of virtually every American" (Cohen & Brawer, 2003, p. 30). Before baccalaurization began at the community college, some colleges in isolated rural and mountainous areas, in states such as Nevada, Utah, and Texas, did not have baccalaureate-granting institutions within commuting distance of community colleges. The term used in the field for this type of

institution is “place-bound” because residents are restricted to the institutions within the regions where they live.

The main justification for offering the community college baccalaureate degree was to increase access to the baccalaureate for students who otherwise would not be able to earn one. Grubb and Worthen (1999) explain that social equity has led to the expansion of community colleges, where education has been used “to provide equality of opportunity to lower-income individuals, minorities, immigrants, [older students], the handicapped, and other groups” (p. 241). However, the minority and low-income segments of the population which are growing most rapidly are not entering, progressing or graduating from post-secondary education at the same rates as the wealthy White student population (Reindl, 2007). Part of this perspective translates into helping students of limited means and academic backgrounds to prepare for college through financial aid and remediation, where necessary. College preparation coursework is critical for older students who likely have forgotten some of their high school algebra and grammar by the time they enroll at a community college, where the average age of students is 29 (American Association of Community Colleges [AACCC], 2007). Open-door access to the community college is the key for many students for whom traditional universities have shut the door. In fact, nearly 50% of all college students in this nation start their college education at the community colleges which serve a greater percentage of minority and low-income students than universities (Bailey & Morest, 2006; Lorenzo, 2005). In 2003-04, over 40% of community college students came from minority racial/ethnic groups; over 28% of dependent students were from households with incomes under \$32,000; and 46% of independent students earned under \$25,000 annually (NCES, 2005, in Coulter &

Vandal, 2007). This is not surprising, considering that average annual tuition and fees at community colleges are less than 40% of those at 4-year colleges (calculations are based on public institutions retrieved online from the American Association of Community Colleges [AACC] website, 2007).

However, research has shown that equal access to college has not been enough to equalize outcomes based on such characteristics such as race/ethnicity and income, even after controlling for academic preparedness (Alfonso, 2004; Bailey & Morest, 2006). Therefore, to provide truly egalitarian access to the baccalaureate degree, equity theory may be invoked. Bailey and Morest (2006) argue that a thorough examination of higher education equity must do more than merely examine college access at the point of admission or matriculation. Therefore, they recommend that one must start by assessing college preparation, then look at college access, and end by evaluating students' success in achieving their academic goals. Interestingly, the present study looked at the college student experience using a conceptual framework based on the Bailey and Morest (2006) equity model by also looking at the "before, during, and after" of student enrollment in teacher education programs.

Another key issue that undergirded this research was equity in the K-12 education system. This is important because the purpose of increasing teacher education programs and evaluating their quality and outcomes is to improve the quality of education in urban areas. Federal legislation (through the No Child Left Behind Act) mandates that an equitable society is obligated to work toward closing achievement gaps based on race, ethnicity, and income, which are limiting the numbers and quality of high school graduates in inner-city areas. Equity becomes increasingly important as the distribution of

income continues to widen in this country and as ethnic diversity expands. In fact, in 2004, 41% of all K-12 public school students in this country were Hispanic, Black or Asian Pacific Islanders (Coulter & Vandal, 2007). In areas with the largest increases in population such as the southern and western states, the proportion of minority students is even higher. However, when looking at the fastest-growing ethnic group in this country, according to Census 2000, 48% of Hispanics aged 25 and older lacked a high school diploma, compared with 20% for the population as a whole and 15% for Whites (Ruppert, 2003). There is evidence that improvements in educational attainment are correlated with myriad other public and private benefits, including not just higher family income, less dependency on social programs, and a reduction in child poverty and crime (Ruppert, 2003), but also improvements in physical health and increased civic participation (Martinez, 2004; Ruppert, 2003). If public school teachers are better qualified to teach and students can achieve better results under their tutelage, then the cycle of urban poverty, flight, and decay may be broken. The results of such improvements in educational attainment have been shown to correlate with economic strength and high income (Reindl, 2007), and the returns of public education to the local economy and urban tax base can thus be measured.

Another equity issue of concern to the K-12 education system is that although the proportion of minority students is increasing rapidly, the proportion of minority teachers has not kept pace (Townsend & Ignash, 2003). A report by the Education Commission of the States (ECS) explains that while about 40% of public school students are of color, only 13% of teachers are, and 40% of public schools in this country have no teachers of color (ECS, 2003; Eubanks, 2002). Small-scale qualitative studies indicate that a greater

percentage of teachers of color may improve achievement for students of color, including increased attendance and reduced disciplinary referrals and dropout rates as well as improving overall satisfaction with school, self-concept, cultural competence, and students' sense of the relevance of school (*National Collaborative on Diversity in America's Teaching Force*, 2004). These findings are not meant to suggest that culturally-competent and responsive teachers of any ethnic background cannot achieve similar gains with students of any ethnicity (*National Collaborative on Diversity in America's Teaching Force*, 2004). However, it is clear that a concern for more equitable distribution of educational opportunity for both K-12 and college students as well as teachers of all income, ethnic, and regional backgrounds is of considerable public concern and may be partially addressed through community college baccalaureate programs.

The present study also builds on Levin's understandings of justice and his research on non-traditional students. Levin (2007) describes a concept which he refers to as justice or fairness, or "the equalizing of advantage so that prior conditions for individuals are recognized and accounted for in rights, privileges, and treatment that compensate for an individual's disadvantage" (p. 4). Furthermore, Levin explains that the way we "frame, identify, and understand non-traditional students...shapes how we see the behaviors or experiences of these students" (p. 21). In his recent book, *Nontraditional Students and Community Colleges: The Conflict of Justice and Neoliberalism*, Levin names three broad frameworks to organize the way that non-traditional students are examined in the existing literature and research; these include "the trait framework, the behavioral framework, and the action framework" (p. 21). Levin explains that the trait framework suggests a "deficit

model” for understanding the traits that might hinder non-traditional students in meeting their college goals and how the institution can intervene to reduce harmful effects (p. 21). He elaborates that these traits may include socially-constructed characteristics such as skin color or disability or may include behavioral characteristics such as parent, full-time employee or immigrant. He offers examples of “ascribed identity concepts such as ‘at-risk,’ ‘first-generation,’ ‘mature,’ ‘minority,’ and ‘underprepared’...that are attached to students and the institutional strategies to respond to them” (p. 22). Levin adds that research and policy studies in higher education generally use conceptions of the trait framework to identify and define non-traditional students such as “social and economic status,...citizen and immigrant status, geographical location (rural, urban, suburban),...and the like” (p. 22). The justification for utilizing the trait framework, Levin explains, is that “it is useful in identifying those populations whose educational attainment is either more precarious or challenging, or both, than either a majority or traditional population, or a comparative population” (p. 27).

The second conceptual lens that Levin poses to understand the literature and research on non-traditional students is “the behavioral framework” (p. 34). This draws on the phenomenological research method that examines issues from the students’ perspective. Research on the college student experience, in which students are seen as actors with their own articulated motivations, goals, learning, and developmental outcomes, are all part of Levin’s “behavioral framework” (p. 22). Students’ “non-traditionality” is not based on the traits that challenge them, but rather “by looking at their individual experiences in their pursuit of personal and educational goals through their attendance at a postsecondary institution” (p. 36).

The third classification of Levin's framework for understanding the literature and research on non-traditional students is the "action framework, which addresses how the institution, the state, and indeed the public and private sectors treat and behave toward the student" (p. 22). This includes "the policies and actions of institutions and the state, such as welfare reform, that affect students" (p. 22) and incorporates the "justice model," which Levin derived from Rawls (1999). Levin's action framework "indicates if and the extent to which the community college and its mission and actions provide justice for students" (p. 22). While Levin's frameworks consider challenges faced by students and the policies that impact them, the accountability movement mainly considers the performance of institutions as the unit of analysis.

The Accountability Movement in the U.S.

In wartime, competition among public entities increases to obtain more already-stretched government funds. Combined with the ongoing current market competition in the economy and the higher education sector, evaluation of progress toward meeting institutional goals as declared in one's mission statement is a logical concern. Over the past two decades, the accountability movement in the United States has asked community colleges to evaluate how well they are meeting their stated goals (Berdahl & McConnell, 1999). Now, the equity agenda seeks to consider whether students actually obtain their desired access to college preparation and college entrance, and meet their college goals (Bailey & Morest, 2006; Gladieux & Swail, 1998). Floyd and St. Arnaud (2007) request that further research be conducted analyzing graduation outcomes, state teaching licensure exam pass rates, and job placement in the field of teaching. They explain that

“Identifying accountability measures to document students and program success is... critical” (p. 13), particularly when evaluating new programs.

Laanan (2001) and Dougherty, Kim, and Hong (2002) have examined the market-like pressure on community colleges that has arisen from the performance accountability movement. Here, performance indicator (Burke, 1997) reporting is required and budgeting or funding decisions are made “on the basis not of input variables such as enrollment but of output measures such as retention, graduation, and job placement rates” (Dougherty, Kim, & Hong, 2002, p. 1). Laanan (2001) explains that “Accountability acknowledges the public’s right to know what actions have been taken in the schools it supports and how effective these actions have been” (p. 59). With the new focus on accountability, there is a growing awareness that rising expenditures by students and taxpayers for post-secondary education are not resulting in better learning when college completion rates are stagnating for certain segments of the population (Reindl, 2007). Reindl describes this as a dangerous productivity gap which must be remedied in order to improve the quality of life for all Americans. Ruppert (2003) and Reindl (2007) both explain that younger adults aged 25-34 are less likely to have earned a high school diploma or a bachelor’s degree than their older counterparts aged 45-54. The U.S. Census Bureau data from 2006 indicated that median annual earnings varied significantly by education level. For individuals with no high school diploma, median earnings were \$18,641; with a high school diploma, median earnings were \$26,123; with some college coursework or an associate’s degree, median annual income was \$31,936; with a bachelor’s degree, median annual income was \$45,221, and with a graduate or

professional degree, median earnings were \$59,804 (U.S. Census Bureau, American Community Survey, 2006).

With respect to community colleges, the issue of baccalaureate attainment has primarily been examined in terms of community college students' retention and transfer rates. Dougherty (2001) expressed concern over the high dropout rates that have been revealed in recent studies of community college students (42.6%) versus 4-year college students (30.6%). Problematic are the low transfer rates of community college students to bachelor's degree programs: only 25% of the nation's community college students transfer to senior institutions within 5 years (Hudson, 2002), and post-transfer attrition is high. As Dougherty explains, students who survive their first year of community college face ongoing institutional obstacles to earning a baccalaureate degree once they complete their associate's degree-level course requirements on the community college campus. Several factors contribute to these obstacles, including inadequate academic preparation, poor transfer counseling, lack of coordination between community college and 4-year programs, difficulty transferring credits, obtaining financial aid and admission, and students' logistical and psychological adjustments to a new campus (Dougherty, 2001; Walker, 2005). In a survey of community college presidents in 2003, "more than 1/3 affirmed that the majority of their students did not transfer due to geographic or financial barriers" (data from an Education Alliance survey conducted for CCBA, in Floyd, 2005a). This is not surprising considering that the average annual tuition and fees at public community colleges total \$2,272, but are \$5,836 (2½ times that amount) at public 4-year colleges (AACC, 2007). It is critical to consider how well community college

baccalaureate degree programs, which claim to remove structural barriers to upper-division coursework, are able to improve baccalaureate attainment rates.

Community college baccalaureate programs aim to overcome a combination of obstacles: local teacher shortages, limited baccalaureate access, and struggling attainment rates in impoverished and diverse communities. The literature continues to debate whether the new programs have negative or positive consequences, despite the obvious need for affordable local workforce training and teacher education. The following section discusses the pros and cons of each set of arguments, as presented by key researchers.

Debate on Community College Baccalaureate Degree Programs

Several arguments have supported the vertical extension of community colleges to offer their own baccalaureate degrees. One argument particularly difficult to dispute highlights trying to meet the growing needs of “place-bound” individuals to obtain 4-year college degrees if they live in areas outside of commuting distance to any 4-year degree-granting institutions. By establishing community colleges with 4-year baccalaureate programs directly within the area of residence, such needs will be met and greater access will be provided.

Another argument for the community college baccalaureate degree has been based on trying to fill unmet local needs for skilled professionals, particularly regional shortages of trained teachers and nurses. Garmon (2000) points out that nurses trained at community colleges make up two-thirds of the current U.S. population of nurses who take the national nursing exam and they have the same or better results as their bachelor-degreed counterparts. One explanation for this is that community colleges may provide smaller classes and more individualized attention from teaching-oriented faculty than at a

university where faculty must produce research (Grubb & Worthen, 1999). University science classes may be taught didactically to large groups in auditoriums, and individual attention may be given by teaching assistants rather than faculty. In addition, community college baccalaureate degrees may provide a more efficient timeframe, and therefore cost less to taxpayers, for a student starting at a community college to complete a baccalaureate degree (assuming that this student persists to graduation). Because the curriculum may be closely aligned to facilitate transfer and taught by existing trusted faculty, community colleges offer good preparation for their 4-year degree programs, ease of credit transfer (Dougherty, 1994), and cheaper tuition, thereby enabling students to afford more courses toward the baccalaureate degree.

Yet another argument in support of the community college baccalaureate degree is filling an empty niche for the “applied” (Laden, 2005, p. 153; Bachelor of Applied Science Degree Task Force, 2006, p. 5) or “workforce” (McKee, 2001, p. 129) education demanded by students and local employers. For example, management degrees for local industry and 4-year degrees in fire science and applied technology are two of many fields in which community colleges can service an unfulfilled population. The Manufacturing Technology baccalaureate degree, started in 1998 at Westark College in Fort Smith, Arkansas, is a clear illustration of an applied program developed to serve the needs of local employers. In fact, the Fort Smith Manufacturing Executives Association, comprised of 64 companies in that region, requested that the program be developed (Connor & Tannehill, 2001). The Manufacturing Technology baccalaureate degree requires that enrolled students complete a minimum of 1,420 hours of paid work experience at a manufacturing-related facility (Connor & Tannehill, 2001). In addition,

this program prepares students to meet the national standards for manufacturing and demonstrate knowledge of the manufacturing field's regular assessments by the National Occupational Competency Institute (Connor & Tannehill, 2001). Dr. John Garmon (2000), Executive Dean of Florida Community College at Jacksonville, explains the situation in general: "[t]here is a shortage of technically trained people nationwide" to meet the needs of "employers in a rapidly growing global economy." He advocates for community colleges to provide training in "emerging technologies" that "are not being provided by four-year colleges and universities" (Garmon, 2000, p. 2). Garmon names examples of baccalaureate degree-level training in the fields of "semiconductors, software development, biotechnical medical systems, simulation training, and laser electro-optics" (p. 2). The debate on how appropriate the vertical expansion of the community college is for offering community college baccalaureate degrees has been characterized by Romesburg (1999) as "mission blur" versus "mission brilliance" (p. 1). He explains that community college faculty offer the added benefit of knowing how to relate their subject matter to the world of work. Therefore, he recommends that community colleges can expand offerings upward in response to unmet student access and workforce needs, thereby becoming "more things to more people" (p. 2).

Linda Thor, President of Rio Salado College in Arizona, likewise confirms that the community college baccalaureate degree is ideal for "practical, practitioner's degree[s]" (Thor, 1998, p. A30). Highly specialized workforce degrees are already being offered by community colleges. The vertical expansion of the community college to include some good quality general education courses could present a simple, convenient, and affordable way to give community college students increased access to applied

4-year degrees. The applied community college baccalaureate degree has been described as a way to maximize the use of existing infrastructure (Walker, 1999). In fact, universities have already changed their traditional baccalaureate-granting missions by offering “continuing education, associate degree programs, and other non-traditional services that they once avoided” in order to increase revenue, serve additional populations, and maximize their use of existing campus resources (Garmon, 2000c, p. 2).

Proponents of vertical expansion also argue that community colleges should expand their missions to best serve the needs of their students and local industry. Also worth considering is the issue of remaining competitive in student enrollment and responding to the 4-year schools’ market encroachment on what was traditionally considered community college turf. Critics argue that the community colleges’ desire to offer their own baccalaureate degrees is blurring their mission, and they point to community colleges that wanted to offer 4-year degrees as community colleges but later converted to become only “mediocre” 4-year colleges (Garmon, 2000, p. 4).

Proponents of the community college baccalaureate degree explain that these degrees are now focused on offering a limited number of specialized, applied workforce degree programs for specific students who seek to increase their productivity and marketability (Garmon, 2000). Supporters of the community college baccalaurization movement explain that the applied community college baccalaureate degree is actually closely linked to the community college mission of providing comprehensive, career-specific, applied technology training responsible for the needs of area students and employers (Garmon, 2000). Furthermore, Garmon (2000) explains, more than one-fourth

of recent community college students already have baccalaureate degrees, but have returned to community colleges to obtain specialized work-related training.

Another potential strength of the community college baccalaureate degree is that students who enter the community college aspiring to earn their bachelor's degrees may do so more conveniently. Such students would not need to apply to another institution, commute, adjust to a new institution, obtain transfer credits, and encounter other obstacles found in a traditional university environment. All the challenges of integrating socially, physically, and academically to a new institution become reduced. Instead of filling out new admissions and financial aid applications and adjusting to new faculty, students, and facilities, community college baccalaureate degree students could simply register for additional semesters at their familiar nearby community college. By minimizing these hurdles to baccalaureate attainment, student attrition decreases and more students can achieve their goal of earning baccalaureate degrees. Furthermore, cost to students could be potentially lower and expenditures from the government's higher education budgets could also be reduced.

Proponents of the community college baccalaureate model claim that, compared with 4-year degrees, community college baccalaureate degrees may also be justified by their lower cost (to students, taxpayers, and the state) than traditional 4-year colleges and universities. Community colleges still primarily focus on teaching rather than research, and do not require extensive, costly on-campus housing facilities or other services that cater to full-time students in residence. Community college baccalaureate degrees may accommodate students in continuing to contribute to the economy and tax base because they may not have to leave the workforce in order to enroll in a community college that is

used to serving working adults. A broad range of arguments have been made in support of the community college baccalaureate movement, from meeting unmet local workforce needs to greater convenience for students and lower costs to both students and society.

In considering the opposite views of the debate, a limited number of potential weaknesses of the baccalaurization of the community college have been cited in the literature. The first is the potential for a problem because of duplicating existing 4-year degree programs. One fear is that the community college baccalaureate degree might not increase the number of students who attain baccalaureate degrees, which Rouse (1998, p. 601; see also Brint & Karabel, 1989, p. 91) describes as the “democratization” effect. Instead, the community college baccalaureate degree program would simply divert the existing pool of students who would have earned bachelor’s degrees at traditional baccalaureate degree institutions. As a result, baccalaureate degree aspirants might simply be reshuffled among institutions, thereby lowering the quality or worth of their baccalaureate degrees or diminishing their potential earnings and status (that is, community college baccalaureate degree graduates versus 4-year degree-granting institution graduates). Townsend (2005) recommends that future research consider whether the community college baccalaureate degree will serve a different population of students than that which other community college transfer programs currently serve. This study preliminarily explores the answer to Townsend’s question of who really earns the community college baccalaureate degree in terms of the ethnic and age-based diversity of students.

A second criticism of the growth of the baccalaurization movement is its potential creation of an oversupply of baccalaureate degree graduates. To address this concern adequately, careful needs assessments should be conducted to predict the demand for

baccalaureate degree graduates. A feared negative consequence of the baccalaurization movement is that it could lead to a diminished value of the baccalaureate degree standard. The concept behind this argument is that the popularity and prevalence of the baccalaureate degree may in reality lower the standard for baccalaureate degree attainment rather than increase the number and quality of baccalaureate degree recipients. This is referred to as educational inflation. When the CUNY system instituted open admissions in 1969-70 to all students who might benefit from a college education, the system was criticized for “dumbing down” (Siegel, 2005; Washburn & Thornton, 1997) the curriculum to allow lower-level students to pass (also referred to as “social promotion”) (Kelly, 1999). The present study aimed to consider the relative quality of preparation in the community college baccalaureate versus the traditional state university baccalaureate model. Despite any potential unintended negative consequences of the new community college baccalaureate programs, Floyd and St. Arnauld (2007) speculate that “the need to resolve pressing societal challenges, such as a severe teacher shortage, will trump any institutional claim to a more focused or limited mission” (p. 22), and careful needs assessment and outcomes research may curb the remaining pitfalls. This study starts to consider how well the community college baccalaureate movement is meeting this unmet need.

Recent Empirical Research on Community College Baccalaureate Programs

Although the debate on whether or not community colleges should offer their own baccalaureate degrees is considerable, the reality is that as of 2009, these programs already existed in 17 states in the U.S. (Lewin, 2009; Walker, 2007). A limited body of literature, already discussed as part of the weaknesses and criticisms of the debate, pertains to new community college baccalaureate programs. Most of this literature is anecdotal, historical,

and predictive rather than based on evidence that comes from empirical research. However, several studies, including a handful of dissertations published from 2001 to 2008, have focused on the expansion of select community colleges that have opted to grant baccalaureate degrees. Floyd and St. Arnauld (2007) explain that “higher education scholars have an obligation to future generations to devote significant time and energy to the study of the factors that promoted this change” (pp. 21-22). An interesting aspect of many of these studies is that they point out the limitations of their breadth and also pinpoint the remaining gaps in the literature to which future researchers should contribute.

The first dissertation-length examination of the subject was McKee’s (2001) study of the “factors and issues surrounding the development of the Bachelor of Manufacturing Technology degree that was established at Westark Community College in Arkansas in Fall 1998.” Interestingly, Westark’s baccalaureate program was designed to be only 3 years, similar to the Canadian university college model of 3-year baccalaureate programs. Also, the nature of Westark’s program was extremely applied and strictly founded on the mastery of industry-based competencies. According to McKee, this degree at Westark was developed in direct response to local industry’s demand for workforce training. Responding to local labor shortages, particularly in applied science and technology, continues to be an ongoing motivation and justification for developing additional community college baccalaureate degrees in the U.S. However, because Westark is no longer a community college (it was converted into a branch campus of the University of Arkansas), it may not serve as an ideal model for a community college that wishes to remain wedded to its original mission.

McKee's study was based on six in-depth interviews with individuals involved in Westark's new baccalaureate program: student, instructor, accreditation representative, administrator, employer, and senator. The student interview focused primarily on her full-time employment and applied coursework. However, her roles as wife and mother and the challenges she faced in balancing them with work, school, and hobbies, as well as her relationships with classmates, instructors, and administrators, were also mentioned. One limitation of McKee's study is that it only included the experience of one student and did not compare the community college baccalaureate student experience with students in more traditional bachelor's degree programs; it also did not describe any weaknesses that the student saw in the program.

Ross's (2007) dissertation, similar to McKee's, focused on a single 2-year college (Kwantlen University College in Canada) during its transition to offer baccalaureate degrees. His survey, however, focused on faculty development support needs during the vertical expansion. Ross covered eight research sub-questions itemizing what was needed to make the transition (including technology support, professional development, student assessment, curriculum development, etc.) for faculty to develop and deliver upper-division courses. Ross's response rates were high (33.1%) and his empirical research was based on over 100 completed faculty and administrator surveys. It is not surprising that he found that faculty support and development, such as professional activities, workload considerations, and resource increases, were needed to implement and sustain baccalaureate programming at former 2-year schools. Ross recommended that further studies be conducted to assess faculty needs to determine if they change over time and to examine faculty needs at additional institutions and in other major fields. Ross also

recommended that aspects of the transitioning institution beyond the support and development of the faculty be examined such as “student services, general services, and administration support and development” (p. 189).

Building on McKee’s study, Burrows (2002) wrote the second dissertation focusing on the community college baccalaureate degree. Burrows told “the story of the history, motives, and political strategies involved in the creation, enactment and implementation of the baccalaureate [enabling] legislation” in the state of Florida (p. viii). Her research was particularly concentrated on St. Petersburg College, the first institution in Florida to offer the community college baccalaureate. Like McKee, Burrows used a grounded theory approach. Her research was partly based on a focus group of 10 community college leaders from across the U.S., from whom she captured emerging themes on the community college baccalaureate movement to develop her protocol to interview Florida leaders of community college education reform. Burrows also conducted in-depth interviews with 11 Florida community college presidents and policymakers concentrated on the politics and leadership behind the legislation rather than on the students’ experiences and outcomes. Following Burrows’s design, the present study also included a qualitative analysis uncovering emerging themes from subject matter experts. (However, in the present study, the experts are not administrators, but recent graduates who were found to be working in classrooms or educational settings, and their voices were captured in the open-ended questions of the survey instrument.)

Burrows’s literature review described the history of the vertical extension of the community college by presenting arguments for and against it. These arguments included the challenges and market forces facing the community college, such as students’

changing needs and expectations, new competition in the post-secondary education market, declining public funding, advancing technology, and performance accountability. Burrows also included an analysis of the legislation and justification used to support the community college baccalaureate in Florida. The Florida Post-Secondary Education Planning Commission (PEPC) report found that Florida had a very low rate of students enrolling in baccalaureate-level colleges right out of high school; it was 43rd in the nation (Burrows, 2002; National Center for Higher Education Management Systems, 1998) and “ranks very low in baccalaureate degree production among citizens aged 18-44” (Florida Senate, 2000, p. 2, in Burrows, 2002, p. 48). In addition, Burrows explains that Florida has relied on community colleges for the lower-division work of most students, but fewer of those students have continued in the upper division, compared with those who started at 4-year colleges (NCES, 1999, in Burrows, 2002). Furthermore, “Florida’s public universities average over twice the enrollment of those in the other 49 states, with 5 of 10 universities enrolling over 30,000 students annually” (NCES, 1999, in Burrows, 2002, p. 49). By contrast, Broward and Pinellas counties, two of “Florida’s largest, have had no state university” (Burrows, 2002, p. 49). Burrows explained that given this information, the “Florida senate’s committee on education recommended [that] the legislature should maintain and increase the role of public community colleges as an open door to every Florida resident who wishes to pursue a baccalaureate degree” (Florida Senate, 2000, p. 8, in Burrows, 2002, p. 49). In fact, soon after the time of Burrows’s study, the Florida Senate approved additional community colleges to offer select baccalaureate degree programs in various parts of the state, and more recent legislation furthered the vertical expansion of the community colleges up to the state college level whereby the primary

mission has been extended to include offering upper-level instruction and the awarding of baccalaureate degrees.

Building on Burrows's research, Pershin's (2006) dissertation also utilized a grounded theory approach and frame analysis. A doctoral student in public administration and policy at Florida State University, Pershin examined and described in detail how policy was framed and constructed in Florida in order to permit community colleges in Florida to offer baccalaureate degrees. His research was delimited to four community colleges in Florida, three that were conferring their own baccalaureate degrees: Chipola, Edison, and St. Petersburg, and also Tallahassee Community College which at that time had not applied to offer the baccalaureate degree. Pershin's field data came from 34 individual interviews that he conducted, 12 of which were with individuals whom he determined were key informants, including college presidents, legislators, committee chairs, lobbyists, college professors, and administrators. The detailed meetings, conversations, and quotes that he captured from Florida politicians and college administrators, particularly those connected to SPC, are filled with insights into the tensions and strategies that led to the creation of the first community college baccalaureate degree program in Florida. In addition, he recommended that future research evaluate "student outcomes" for the community colleges offering baccalaureate programs and examine program outcomes "relative to other types of baccalaureate programs" (p. 116).

Similar to Burrows (2002) and Pershin (2006), Petry (2006a) also utilizes the case study approach to focus on the conversion of some of the first Florida community colleges to offer baccalaureate degrees. Her field research, like that conducted by

Burrows and Pershin, is based on in-depth interviews with Florida's community college baccalaureate leaders. Petry's study contributes to the existing research by including a survey of 38 executives, developers, and implementers of the community college baccalaureate programs at the first five Florida community colleges to offer these degrees. After surveying her subjects, she conducted 16 structured interviews to further explain how and why Florida community college baccalaureate programs were created. According to Petry's findings, the two primary reasons for creating the first five Florida community college baccalaureate degree-granting institutions were student access to the baccalaureate degree and meeting local workforce needs. Petry's research helped to initiate Manias's (2007) study, which attempts to consider the extent to which the objective of increasing student access to the baccalaureate for a new population of students is being met. In addition, the present study built on Petry's findings by asking how well graduates felt they were prepared to fulfill the objective of meeting workforce needs.

Petry (2006a) recommended future research on the community college baccalaureate to identify and consider how the "attitudes and beliefs" (p. 165) of students might be used to improve community college baccalaureate programs. Of particular value was an examination of the attitudes of community college baccalaureate graduates towards the programs they attended once they started working in their field. Petry suggested that questions for gathering such data include: "Did they value them and find them useful? Did they learn what they needed to learn and develop the skills they needed in order to become productive employees? Were they well prepared for the 'real world' scenario?" (p. 167). Furthermore, Petry recommended that "student outcomes and

evaluations as well as completion rates should be studied” (p. 167). The present study clearly built on Petry’s recommendations with the alumni surveys detailed ratings and open-ended questions assessing both the programs and the graduates’ professional preparation.

In 2005, Gonzales also wrote a dissertation examining the community college baccalaureate movement in the United States. Although he worked for several years at Great Basin College in Nevada, one of the first community college baccalaureate programs in this country, his study, unlike McKee’s, Burrows’s, and Petry’s research, was not a micro-level case study of the formation of a program. Instead, he employed a macro-level approach and instructed the reader in a technique used by institutional research officers to compare their program data with other community college baccalaureate data in the nation. Gonzales (2005) asked future researchers of the community college baccalaureate to compare “select institutional characteristics such as completions by award level and information regarding instructional programs and degrees conferred” (p. 121). Using such national data, he explained, would enhance accountability, inform policy decision-making, and facilitate monitoring this national trend for community colleges by identifying a set of peer institutions that offer select baccalaureate degrees.

Gonzales’s (2005) study recommended several important ideas for future research on the community college baccalaureate, which also directly supported the development of the research questions in the present study. First, Gonzales suggested that an examination of student enrollment trends within and among institutions offering select baccalaureate programs could be analyzed “to determine if access to bachelor degrees by

historically underserved and underrepresented student populations has been achieved” (p. 121). Gonzales listed the numerous justifications that Walker (2001) made for offering the community college baccalaureate, including increased geographical, financial, and academic access to upper-division courses; success among non-traditional or returning students through smaller classes; and less rigid sequencing. Gonzales suggested that future research should determine whether or not the justifications are substantiated with evidence. In addition, he explained that future research should evaluate the quality of instructional programs, given the concerns about offering quality bachelor’s degree programs at community colleges.

Rice’s (2007) dissertation methodology built on Gonzales’s 2005 study by examining several peer community college baccalaureate-granting institutions (in Rice’s study, 14 institutions), as reported in the Integrated Postsecondary Education Data System (IPEDS). However, Rice examined how the community college mission may have been impacted by offering upper-division courses and conferring bachelor’s degrees. Rice conducted a survey of those peer institutions’ presidents or their designees as well as a quantitative analysis to determine if their student enrollments in courses in three categories considered critical to the traditional community college mission (transfer courses, developmental instruction, and applied vocational courses) had changed considerably in the three years before or after vertical expansion. Rice concluded that enrollments in those three traditional categories were not negatively affected (when compared to the national trends) by the addition of the community college baccalaureate degree programs, and he provided respondents’ statements from his surveys to support this conclusion.

Similar to Rice's (2007) work, Plecha's (2007) dissertation, published in the same year, also focused on the impact that granting baccalaureate degrees could have on the historic mission of the community college, including open access to remediation, transfer, vocational, and community education (p. xvii). Plecha's study was an explanatory multi-case study based on 5-day site visits, interviewing various levels of administration and faculty, at three different institutions: Utah Valley State College, Dalton State College, and St. Petersburg College. Plecha also incorporated surveys and quantitative analysis in her research design. She concluded that her question based on the organizational theory of isomorphism, more commonly referred to as "mission creep" (p. 25), appears to be a function of interactions between the political and the economic environment (p. 186), population demand, as well as the length of time offering baccalaureate degrees (p. 162). In the case of St. Petersburg College, she stated that it has become a hybrid institution, resulting in more diversity within higher education (p. 26) because it has remained committed to its traditional community college mission while also expanding offerings to include upper-division coursework and baccalaureate degree-granting (p. 156). In Plecha's recommendations for future research, she asked for more extensive studies involving various different institutional types (such as the state university utilized in the present study) and noted that examining the effects of baccalaureate degree-granting on informal attributes (p. 185) such as interactions between students and faculty, as well as on student attitudes (which the present study considered in depth), may be interesting (pp. 185-186; Shaw, Valadez, & Rhoads, 1999).

It is unfortunate that Plecha's extensive interview-based research was broken down into such tiny pieces that it is hard to tell whether the quotes from faculty are based

on rumors that they had heard or on concrete memory. However, her research was so extensive that she was able to uncover important information related to the present study that supports the Florida community colleges' offering of baccalaureate degrees in general, and SPC for doing so in particular. Plecha explains that although Florida attempted to develop an articulation model for A.S. degrees to be accepted by the universities without losing any credits in the transfer process, only 5 out of 160 A.S. degrees had successfully been articulated by 2007 when her study was published. In addition, Plecha mentioned that in 2001, USF had been given \$10 million in state dollars to build a branch campus at SPC so that SPC students could earn baccalaureate degrees without having to travel to USF's campus in Tampa (p. 124). However, as an SPC administrator explained to her, "this model was not as successful as the legislature had hoped, partly because USF put little effort into offering classes at SPC" (p. 124).

Manias's dissertation research, also published in 2007, was similarly focused on the impact and outcomes of the legislation that enabled community colleges to confer baccalaureate degrees. He asked whether the three community college baccalaureate degree programs in Florida which he examined are actually increasing access to the baccalaureate degree as the legislation intended. His research was based on data from the National Survey of Student Engagement (NSSE) as well as his own survey of open-ended questions posed to 140 enrolled juniors and seniors, most of whom were education majors. His study was the first to examine students' experiences in depth. He concluded that "the baccalaureate level teacher education programs at community colleges in Florida are increasing access to baccalaureate education" (p. vii). His conclusion was based on his findings that "one fifth of the respondents said that they would not have

been able to earn a baccalaureate degree without the community college baccalaureate program” (p. vii). However, the overwhelming majority of community college baccalaureate students (75%) “reported that they would have attended another institution for their baccalaureate studies if the upper divisions at the community colleges did not exist” (p. vii). Unfortunately, the three colleges, although identifiable from his descriptions, were only referred to by pseudonyms; therefore, it is not possible for the present study to have openly built on those data. However, it is clear that the present study built on Manias’s work in that it also compared teacher education student experiences, even though Manias looked at enrolled students and the present study examined their perspectives after graduation. In addition, a portion of Manias’s research attempted to compare community college education baccalaureate students’ experiences with those of more established but mostly private education baccalaureate programs. Manias stated that it would have made for a better comparison if his survey “were sent to students enrolled in public colleges and universities in Florida,” instead of private institutions (p. 118). He also mentioned that a student profile comparison, similar to the reporting of demographics in the present study, be made in order to understand the differences that may exist between community college baccalaureate and university baccalaureate populations. Furthermore, he recommended that future research specifically contact community college baccalaureate program graduates to determine whether they stay in the region where they received their baccalaureate degree and “whether they feel they were well prepared to succeed in the workplace” (p. 125). It is interesting to note that Manias mentioned that he had hoped to survey community college baccalaureate graduates as part of his field research, but that none of the three institutions

where he had conducted student surveys would provide him with contact information for graduates (p. 127). This reluctance also turned out to be the case for the present researcher. However, the present researcher located many of the graduates on her own through public material (such as graduation programs which listed graduates' names, majors, and graduation dates), combined with online venues with publicly available e-mail or home mailing addresses (including facebook.com, whitepages.com, and public school websites with individual teacher's e-mail addresses listed).

The most recent dissertation published regarding the community college baccalaureate was written by Bemmell in 2008. Similar to Burrows's (2002), Petry's (2005), Pershin's (2006), and Manias's (2007) research, as well as the present study, Bemmell's (2008) field research was limited to institutions within the state of Florida. With his background in accounting, Bemmell's dissertation was the first to conduct a cost-effectiveness analysis of two neighboring baccalaureate programs. Like the present study, his research compared the baccalaureate conferred at a community college with the baccalaureate conferred by the nearest state university. Bemmell offered a succinct but thorough comparison of three different major models utilized in this country for measuring cost effectiveness, and explained that the lens through which the cost of a program is analyzed is very important because it affects the answer to the question of which program is more cost-effective. For example, the taxpayer pays less for a community college baccalaureate credit hour than for a state university credit hour because it is awarded a lower level of state funding. The same can be said of the student who pays less tuition per baccalaureate credit hour at a community college than at a state university. However, Bemmell explained that if one looks at the high start-up costs of a

community college baccalaureate program that may have received a large state allocation for that purpose, and because it may run with lower enrollments in earlier years, the real cost per credit hour (based on Levin's [1983] ingredients model) is very high initially, but is likely to diminish to eventually cost less per credit hour than at the state university after enrollment increases and economies of scale are reached.

Bemmel's (2008) methodology was mixed, although it consisted mainly of cost analysis. His financial reporting was followed up with a total of 5 interviews, 2 with community college administrators, and 3 with State Department of Education administrators. He noted that a major weakness of his case study research was that it looked more at cost analysis rather than at effectiveness measures (p. 130). In particular, Bemmel found that the average state reimbursement level or real cost to the taxpayer was \$8,392 for the university versus \$5,574 to the community college in 2006-2007. From the perspective of the student, statutes required that the community college baccalaureate funding and tuition be set at 85% of the university's cost and tuition. The only two effectiveness measures he used were rates of passing licensing tests in teaching and nursing which were virtually 100% at both institutions as well as degrees awarded per upper-division credit hour (p. 73). Bemmel found that "the quality of the programs as reflected in the effectiveness measures showed that the community college baccalaureate programs were equally as effective as the university programs (p. 125). However, he noted (like Birkeland, 2005) that it would be advantageous if there was an agreed-upon set of attainable effectiveness measures of student outcomes that could be utilized to compare different delivery models. He recommended that future studies address "the differences in perceived effectiveness of a degree from a community college and a

university based on the views of the student” (p. 129). In fact, the present study specifically asked for the students’ views of these two different institutional types. It is unfortunate that Bemmel’s results are not, as he noted, generalizable to other schools because of the study’s exploratory nature and the “differences in state and local laws, or economic, geographical, and environmental differences” (p. ix). It is also difficult to openly build upon Bemmel’s cost analysis data because, although it is clear which field sites he used, he kept the names of the two institutions as well as the five administrators confidential.

It is important to note that St. Petersburg College initially appeared to have a policy that embraced outside research and development, whereby they sent their administrators to annual conferences to present their baccalaureate programs, and even provided free consulting to community colleges that were developing their own baccalaureate programs. SPC also facilitated the development of many of the dissertation-length studies described above, along with the present study. However, now numerous studies, site visits, interviews, and surveys have already been conducted which have been time-consuming for SPC administrators. The college has cut back on funding to send administrators to conferences and has placed a moratorium on future outside research studies. It is possible that the current study was only allowed because it had been embraced right before their policy on external research was changed and was therefore grandfathered in. The only other empirical research available on community college baccalaureate degrees has been in article form, as the following section now discusses.

In 2003, Floyd and Walker conducted an electronic survey of the 50 Community College State Directors to ascertain perceptions, programmatic information, and trends

related to community college teacher education. More than 20 of their 32 respondents viewed the teacher shortage as a major critical issue among state leadership. Floyd and Walker (2003) asked future researchers to consider whether one model of teacher preparation was more effective than another and how should their learning effectiveness outcomes be measured. They also asked if there were differences in the success of community college students versus native university students (Floyd & Walker, 2003). In addition, Furlong (2005), in a chapter about St. Petersburg College in the one book to date on the community college baccalaureate degree,¹⁶ described the development of that institution's offerings. Furlong specifically asked that future research examine "the relationship between the community college baccalaureate and comparable programs in four-year institutions" (p. 126).

Floyd and St. Arnauld (2007) co-authored an article entitled "An Exploratory Study of CCB Teacher Ed Programs: Lessons Learned." This study was based on interviews with one or two representatives from each of 10 different community colleges or former community colleges that have reorganized and become senior colleges, now offering their own CCB degrees in teacher education. The 28 questions asked of each community college administrator or faculty member covered "basic demographics, governance, faculty, curriculum, institutional effectiveness and finance" (p. 6). Their research, which represented institutions in six different states, emphasized "telling the story of those who have been there, giving voice to the path-finding practitioners who have broken through the baccalaureate barriers so that their institutions might confer their own [baccalaureate] degrees in teacher education" (p. 5). The lessons that Floyd and St.

¹⁶Material from various chapters in this book, edited by Floyd, Skolnik, and Walker (2005), have been incorporated into relevant sections above.

Arnauld learned from community colleges conferring their own baccalaureate degrees in teacher education highlighted the importance of seven factors for solid program development:

(a) state politics, (b) financing, (c) curriculum alignment with teacher education standards, (d) securing accreditation at the baccalaureate level, (e) collaboration with local communities and schools, (f) solid faculty qualifications and the integration of the baccalaureate faculty into the total college, and (g) program success as measured by student achievement and job placement. (pp. 8-9)

Their key concerns, which are expanded upon in this study, were related to the extensive institutional requirements for compliance with external reviews and documenting program success through a variety of quality measures, including students' perceived experience.

Floyd and St. Arnauld (2007) believe that questions for future study emerge from within the "practical realities of developing teacher education programs" (p. 7). Their study of the first 10 community college-based teacher education baccalaureate programs found that these programs are successful in terms of graduation outcomes, high state certification exam passing rates, and teaching job placements. Floyd and St. Arnauld hope that their study will encourage future research with more interviews than one or two people on each campus and more extensive analysis. They focused on the development of the community college teacher education baccalaureate programs rather than on evaluating the quality of the new programs.

The above section described the limited existing foundation of literature and preliminary empirical research on community college baccalaureate programs, the gaps in that research, and the authors' suggestions for building on it. In addition, the specific gaps in the existing research that this study aimed to fill have been described. The

following section presents studies and instruments focused on measuring the quality of teacher education programs.

Studies Measuring Quality of Teacher Education Programs and Perceived Competence

Because the focus of the present study is on how practicing teachers measure the quality of teacher training and how they perceive their competencies as teachers, it is important to consider what the related literature has found on this issue. In 2005, Birkeland's dissertation concluded that "there is little scholarly agreement on the definition of teacher quality or how to measure it[;] research on the effects of these programs rests on a range of assumptions about the causes and indicators of effective teaching" (p. 11). In her literature review, Birkeland cites a Stanford Research Institute (SRI) report (Humphrey, Wechsler et al., 2002) describing several tools utilized by researchers to quantify teacher quality. The categories used were: "ratings by observers, student test scores, teachers' self-reported sense of efficacy, and measures of subject matter knowledge" (Birkeland, 2005, p. 12). Darling-Hammond (2006) adds to the list of commonly used measures: course grades, data on employment and retention in the teaching field, and employers' perceptions of the graduates' abilities. The Education Commission of the States (Coulter & Vandal, 2007) and Levine (2006) suggest that the quality measures of teachers should be shifted from the more traditional degree- and knowledge-based standards to an outcomes-based system that includes developing a common definition of quality and consensus on a common set of standards detailing what all potential teachers should know and be able to do when they complete their preparation programs. Not only could this help to create more clarity in terms of what to teach and

expect of graduates, but Coulter and Vandal (2007) explain that if all providers of teacher education were required to meet the same standards, then students would be judged based on their performance on common standards rather than on the type of institution they attended or the amount of tuition they could have spent. Levine (2006) adds that “teachers must now be able to educate every child in the class to achieve the same [highest level of] learning outcomes [in history] at a time when the student body has changed [and become far more diverse] economically, racially, geographically, linguistically, and academically” (p. 12). These standards helped to fuel the popularity of administering a nationally-normed, valid, and reliable survey instrument called the National Survey of Teacher Education Program Graduates. Despite these recommendations for sweeping teacher education reform, empirical evidence is currently lacking on what really works in terms of preparing teachers for an outcomes-based education system (Levine, 2006). In the meantime, satisfaction surveys and studies (like the present study here), which focus on what the teachers have learned rather than on what their students have learned, are being utilized.

Professional accrediting organizations require their approved institutions to regularly demonstrate the ability to meet their own specific quality standards. Tom Furlong, the Senior Vice-President of Baccalaureate Programs and University Partnerships at St. Petersburg College, explains that in order for community college baccalaureate degree programs to demonstrate their quality and earn acceptance from critics and employers, they may need to work hard and rapidly to complete the numerous steps required to earn professional or specialty accreditation (Furlong, 2003). It is interesting to note that because accreditation remains optional, over half of the over 1,300

Schools of Education in this country remain unaccredited in their specialty (Murray, 2006). In the field of public K-12 teacher education offered by colleges and universities, two main professional accrediting agencies are both currently recognized by the Council of Higher Education Accreditation (CHEA) and the United States Department of Education: NCATE (National Council for Accrediting Teacher Education) and TEAC (Teacher Education Accreditation Council) (Murray, 2006). Despite the political differences between these two professional accrediting agencies, they serve a common goal to assure the public that teacher education programs prepare quality teachers (Murray, 2006). NCATE examiners offer more of an “external audit...according to a set of very specific standards,” whereas TEAC functions more as an “internal audit” for the education faculty to continually assess and improve their own programs (Imig & Harrill-McClellan, 2003, pp. 81-82). The National Council for Accreditation of Teacher Education (NCATE) holds institutions, if they choose to participate, accountable for meeting six standards to foster ongoing improvements (Goodwin, 2006) in the quality of their programs. The standards related to issues which may be evaluated by the teacher education students themselves include: candidate knowledge, skills and dispositions, field experience, and clinical practice (NACCTEP, 2004). In addition, NCATE requires that programs administer follow-up studies of graduates (such as the National Survey of Teacher Education Program Graduates) to collect data to evaluate the programs’ ability to meet these standards. NCATE also requires that the results of these studies be utilized to remedy programmatic weaknesses (Loadman, Freeman, Brookhart, Rahman, & McCague, 1999).

The Teacher Education Accreditation Council (TEAC) is the other newer and smaller voluntary accrediting agency for public school teacher education programs. TEAC helps to verify program claims that they prepare competent, caring, and qualified professional educators. Actually, the quality principles and standards of TEAC I and II are virtually the same as NCATE's 2000 Standards 1 and 2 (Murray, 2006). The TEAC quality principles which students may be able to assess are evidence of student learning, including subject matter knowledge, pedagogical knowledge, and teaching skills (NACCTEP, 2004). TEAC, like NCATE, recommends numerous "methods of assessing teacher candidate learning," including alumni follow-up studies (Imig & Schuhmann, 2006, pp. 6-7). It is interesting to note for the present study that St. Petersburg College plans to seek accreditation from TEAC in 2010 for its baccalaureate programs in teacher education (Brown & Burniston, 2008), and that USF, the nearest state university, has all of the programs within their College of Education accredited by NCATE.

In addition to national accreditation standards, there are also regional accreditation standards and state standards. To comply with the various federal standards, regional accreditation, and state standards, institutions typically create internal reports to regularly quantify and demonstrate sufficient performance on the full range of measures. For example, the federal Higher Education Act mandates that colleges teaching education be evaluated on their graduates' performance on licensing exams (Darling-Hammond, 2006). Regional accreditors are branches of the Commission on Colleges; for example, the Southern Association of Colleges and Schools accredits the colleges in the 11 Southern states, including Florida. In addition, in Florida, there are numerous state regulations to improve the quality of education such as a series of Sunshine State

Standards, first approved by the State Board of Education in 1996 (and currently being revised and expanded), that provide specific expectations for student achievement at different grade levels for various subject matter.

Rahman (2000) wrote his dissertation based on the NCATE professional standards for teachers that formed the basis of the National Survey of Teacher Education Program Graduates, which have since been compiled in the National Database for Teacher Education Follow-up Studies. (Several of the questions utilized in the survey of the present study were taken from the same survey instrument that Rahman utilized; however, the questions he focused on were related to job satisfaction and those questions from the National Survey of Teacher Education Program Graduates were not incorporated in the survey instrument of the present study.) The focus of Rahman's study was on-the-job satisfaction of graduates and how this may be related to graduates' self-perceptions of their instructional skills and professional knowledge, as well as their assessments of the quality of their preparation programs. Rahman found that program quality was strongly associated with job satisfaction when analyzed with traditional hierarchical regression as well as under structural equation modeling. The relationship that Rahman found between job satisfaction and the self-evaluation of graduates' instructional skills was marginal and only apparent in the regression analysis after controlling for demographic variables and program quality. Graduates' perceptions of professional knowledge were not significantly related to job satisfaction in either method of analysis.

Rahman's (2000) study did, however, show a strong relationship between instructional skills and professional knowledge of teachers with program quality. He

argued that a better understanding is needed of the subjective dimensions of teachers' self-assessment of knowledge and teaching skills, and who rates them highly. Rahman (2000) believes that this can help administrators to construct programs that foster these dimensions and also to recruit teachers who rate themselves highly. The goal of Rahman's study is similar to the present study's aim to help maximize the efficiency of diminishing future investments of society, and of the individual in teacher preparation, and also to enhance K-12 student performance in the classroom.

Mihans's (2005) dissertation research, similar to that of Rahman, was concerned with high rates of teacher attrition, which he attributed to a lack of quality teacher preparation and low levels of job satisfaction. He argued that quality teacher preparation requires the key components of content and pedagogical knowledge (Shulman, 1986), as emphasized in the National Survey of Teacher Education Graduates, also studied by Rahman (2000). However, he adds that solid clinical experiences with meaningful supervision and feedback (Darling-Hammond, 2003; Mihans, 2005) are equally valuable to prepare graduates for the challenges and realities of the teaching profession.

Capa's (2005) dissertation adds that teachers' sense of efficacy or their belief about their own ability to produce desired outcomes of student learning is strongly correlated not only with student achievement, but also with teachers' commitment and persistence in the teaching field. Capa's research utilized a survey similar to the National Survey of Teacher Education Graduates called the First-Year Teacher Survey. Much like Rahman (2000) and Mihans (2005), Capa (2005) found that teacher preparation program quality (along with principal support and certain characteristics of teaching assignments)

could impact first-year teachers' self-efficacy and thus positively impact student achievement and teacher retention.

In another dissertation, Handy (2005) was also concerned with the quality of teacher preparation and set out to ascertain the experience of web-based teacher training preparation, practice, and performance of teaching. His results showed that teachers chose this alternative education program "because of the highly flexible nature of instruction it provides, it satisfied their personal needs, and accommodated their schedules with more convenience than a traditional program" (p. xii). Handy utilized the California Standard of the Teaching Profession as the key gauge of successful teacher performance and practice. This standard is divided into domains such as student engagement, classroom management, subject matter delivery, instructional design, assessment, and professional development. A majority of the graduates were very satisfied with the quality of instruction, support, and guidance they had received. In addition, they felt well-prepared to teach in urban schools.

Handy (2005) conducted 1-hour interviews with 25 program graduates who worked in public elementary schools in San Francisco, and 9 principals who were not supervisors of the students in the study but who had recent experience evaluating web-based trained teachers. His research questions, rather similar to those in the present study, focused on why teachers chose web-based programs, what their experiences were in those programs, and what the perceptions, thoughts, and opinions of the quality of teacher preparation were from both the graduates' and principals' perspectives.¹⁷

¹⁷Handy also asked how web-based trained teachers integrate technology in classroom instruction.

Locklear's (2007) dissertation also examined graduates' perceived quality of a new teacher education program. He quantified quality based on academic performance, internship evaluations, and self-perceived competence of near-graduates from different venues of teacher education baccalaureate programs offered by East Carolina University. All of the data collected for his study were simply compiled from existing databases at the university; therefore, Locklear did not concern himself with conducting original field research. He did not design student surveys and evaluations or interviews or consider how to address low response rates because the forms were already completed for all of the students in his sample as mandatory parts of their program. Half of the students in Locklear's research sample had completed the first two years of coursework at community colleges and then transferred in order to take their junior- and senior-level courses at new University Partnership Centers located on their same rural community college campuses. The total number of students who completed degrees that year at the University Partnership Centers was 40 (29 in Elementary Education and 11 in Special Education). The other half of the students in Locklear's research sample consisted of 40 near-graduates of the traditional on-campus university program (they were randomly selected with a computerized random-number generator to match the UPC students by number of students and major, so 29 were randomly selected from the on-campus Elementary Education degree completers and 11 were randomly selected from the on-campus Special Education degree completers). The sample used in the present study for the comparison group of state university students was similar to Locklear's in that it too was designed to randomly match the first graduates of the new model by major. Locklear had access to a wide range of descriptive institutional data on each graduating senior,

including age, ethnicity, gender, and Praxis I test score. In addition, Locklear was able to quantify 44 variables to measure student performance based on his access to the following institutional tools: observations of students ending senior internships by university supervisors with input from clinical teacher, internship progress reports, final internship grades, senior portfolios, Praxis II scores, and upper-division GPAs.

The final quality measure that Locklear utilized was the perceived competence of students in both modes of delivery of teacher education programs, based on a mandatory online survey of students prior to completing their senior internships. Students rated their responses to each question on a scale of 1-5 (Strongly Agree to Strongly Disagree). Responses to 20 of the survey questions were included in Locklear's analysis of perceived competence in relation to specific knowledge and skills acquired in their teacher preparation programs. The exit survey also included items which Locklear did not analyze about various elements of the internship experience and advisement. In addition, Locklear did not analyze the responses to the following open-ended question at the end of the survey, which is presented in his Appendix A: "What is the one thing you would add and/or delete from your teacher preparation program?" In contrast, the present study sought to analyze students' responses to four open-ended interview questions, in which they describe their own specific suggestions as well as their likes, dislikes, greatest challenges, and anything else they would like to share.

Locklear's research found no significant differences in student performance, internship evaluations or perceived competence in students from the two different modes of delivery. This was not surprising, he explained, considering that "The university center students complete the same degree program as the on-campus students. There is no

deviation between models in the curriculum, clinical experiences...internship requirements, nor faculty” (p. 84); the only difference was the location of the program. Locklear asked that future research seek to determine if involvement in different modes of teacher education programs would impact novice teachers.

In addition, Locklear’s results suggested that “the institution that delivers the foundations curriculum component is not a significant factor in the quality of the graduate” (p. 86). It is important to note that Locklear’s treatment group in his research sample was rather small—based on only 40 students who completed the university curriculum in either elementary or special education at university centers located on community college campuses. His research was neither grounded with comparisons of similar programs nationwide nor with students in other institutions based on their demographics. In addition, unlike the survey instrument in the present study, the survey instruments that Locklear utilized were neither disseminated nationwide nor pilot-tested on his treatment group to minimize data collection errors or maximize opportunities for generalizability or additional comparisons. Furthermore, the students in Locklear’s sample were from rural community college-based university centers; all but one were White, and all were female. These demographics are not likely to be generalizable with students in other fields or environments such as urban teacher education programs.

Locklear’s results supported the efficacy of the university center model located on the rural community college campus as a viable alternative to traditional on-campus university teacher education programs. However, a gap in the literature remains regarding the graduates of urban teacher education baccalaureate programs delivered exclusively by community colleges. Locklear (2007) explained that if educational leaders and

policymakers wish to increase baccalaureate degree access and affordability and reduce the teacher shortage, they must determine which models are most effective. Therefore, in order “to ease the concern about candidate performance and accountability for teacher education providers” (p. 88), additional studies must be conducted to evaluate the relative quality of graduates of new baccalaureate degree programs in urban community colleges. The above section described several pertinent studies that measured the quality of teacher education programs and the perceived competence of their students; the present study built upon this research.

Summary

This literature review presented background on the main constructs framing this study, including the mission of the community college, globalization, access and equity theory, and the performance accountability agenda in the U.S. The review also examined the debates about and research on community college baccalaureate programs in the U.S. and Canada generally, and the state of Florida specifically. Such research included alumni satisfaction and student experiences, comparisons of university and community college student characteristics and experiences, and the key ingredients of effective teacher education programs.

Next, Chapter III presents a description of the quantitative and qualitative methodology used to conduct the present study, including descriptions of the sample, instruments, and methods of data analysis.

Chapter III

METHODOLOGY

This chapter describes the detailed plan for the methodology for this study. The purpose of this study was to examine graduates' academic experiences in teacher education programs at the first community college in Florida to offer its own baccalaureate degree, St. Petersburg College, and to compare them with the experiences of graduates of a nearby state university, the University of South Florida. The chapter begins with a recapitulation of the research questions framing this study. Next, the research methodology chosen for this study is explained and justified. As part of the setting, the chapter presents a brief history of St. Petersburg College (SPC), including its history, scope, and existing data. In addition, the population and sample for this study are described, and the instrumentation for this research and procedures for collecting data are detailed. Because human subjects participated in this study, procedures for their consideration are explained. The collection, coding, and analysis of the data are also discussed. Finally, design issues such as reliability, validity, generalizability, and triangulation of data sources are considered.

Recapitulation of the Research Questions

The primary research question that guided this exploratory study is: How does the perceived quality of teacher preparation baccalaureate programs at one community college compare with that at a nearby university? Are there differences in the ratings of

their abilities and preparation given by community college baccalaureate graduates and their state university counterparts? Specific questions drawn from this main question are:

1. How do teaching graduates from both institutions rate the quality of their programs?
2. How do teaching graduates from both institutions rate their teaching competencies?

Justification of Methodology

Borrowing Levin's frameworks of non-traditional students in higher education (as explained in Chapter II), the researcher in this dissertation first briefly examines the demographic characteristics of students in a community college baccalaureate program and compares them to students in a more traditional state university setting. Data on demographics were drawn from the most recent institutional data from SPC administrators as well as from the alumni survey administered as part of this study. Within the data on student characteristics, the background characteristics of these students are described, and where possible, their access to the baccalaureate is considered, as recommended by Bailey and Morest's (2006) equity model (described in Chapter II).

Next, with a survey of graduates, the present study evaluated how the academic experiences of community college baccalaureate program students compared with those of students in a nearby state university. The alumni experiences in community college and university-based baccalaureate degree programs were examined and compared to explore how well they felt their respective educational experiences prepared them to teach. This step was more phenomenological (Creswell, 1998), or what Levin (2007) refers to as

behavioral, because it is based on the actual perspectives of the alumni, who report on their own experiences in a community college-based teacher education baccalaureate program. The present study analyzed students' "success in reaching college goals" (Bailey & Morest, 2006) in order to consider the fairness of the results (Levin, 2007, p. 22) of these new public community college programs. This study also considered how the new policy of allowing select community colleges to offer baccalaureate degrees impacted educational experience and how it may also impact teacher preparation and satisfaction, thereby potentially reducing both local baccalaureate shortages and teacher shortages.

Several years ago, the researcher had communicated with St. Petersburg College's Senior Vice-President and Associate Vice-President of Baccalaureate Programs about her interest in conducting dissertation research on their campus. She was welcomed verbally for several years, followed by a series of meetings with all of the relevant administrators on the Tarpon Springs campus in May of 2006. The researcher also spoke with several of what Creswell (1998) terms "key informants" from the SPC community. These are "individuals who provide useful insights...and can steer the researcher to information and contacts" (p. 60). Among them were the SPC accreditation liaison for SACS and the Director of Institutional Research. The researcher was given a copy of the most recent institutional data in the form of the *SPC Factbook*, which was utilized in discussion at several of the on-campus meetings. The *Factbook* is updated annually and is available from the college's website (spcollege.edu). In addition, the researcher attended numerous national and regional conferences related to community college baccalaureate programs, and her interest in conducting research at SPC had been continuously embraced by SPC administrators in attendance. The researcher sat with SPC administrators at these

conferences and discussed her research ideas and also provided a private presentation of her methodology and a discussion of her draft survey instrument.

In addition, the researcher met with several members of SPC's College of Education, including the Dean, the Assessment Coordinator, the Director of Curriculum and Student Success, and the Coordinator of Research and Reports. These administrators described the demographic data of SPC's alumni and the schools where they were currently employed were named. In addition, as suggested by the Associate Vice-President of Baccalaureate Programs (correspondence, November 2007), a modest incentive could be offered to entice the alumni who are busy teachers to complete the survey utilized by this study.

The study was exploratory in nature and, as such, provides an initial mapping of possible topics and issues to be explored in subsequent research. With a relatively small population being studied, the statistical significance of the survey results might not be thoroughly measured. It is important to mention that in order to determine that a statistically significance difference exists between the mean values of SPC and SUS responses, the p value of less than or equal to .05 was utilized in this study. The cut-off value of p less than or equal to .05 is commonly used in the social sciences (whereas in the health sciences, the risk of making a type I error is higher), and therefore a p value of $< .01$ is typically used as a cut off point for significance (Saint-Germain, 1997). Because the largest number of responses possible helps to best represent the population being studied, the researcher had hoped to invite all SPC graduates in each of the teacher education majors from each of the campuses to respond to the survey. However, because of the reality of restricted access to alumni e-mail addresses and mailing addresses, this

was not possible. In order to “minimize” any potential “sampling error” (Salant & Dillman, 1994, p. 17) or response bias, generalizations will not be made beyond the respondents in this study (Morrison, 2006) to other institutions, majors or class years.

The researcher compared and triangulated the survey results with the institutional research data at SPC in order to determine if a representative sample had been selected in terms of characteristics (such as major and gender) of respondents when compared to the entire population of graduates of SPC’s teacher education baccalaureate programs from 2004-08. Because the survey also included several questions on demographics, it permitted a thorough examination of SPC graduate respondents’ demographics to be compared with the demographics of USF graduate respondents. Comparisons were made between SPC and USF graduates’ perceptions across the subscales of state competencies and program quality. Descriptive statistics such as N, means, and standard deviations for each item and subscale were generated to explore the differences that may exist between the academic experiences and perceptions of the graduates of the two different institutions. This was done in an effort to preliminarily indicate whether students with certain characteristics—commonly referred to as non-traditional students (Levin, 2007) who were previously underserved—may be gaining increased access to the baccalaureate degree via the new community college delivery model. This analysis preliminarily attempted to indicate if the community college-conferred baccalaureate program appears to be actually helping to close the equity gap (Bailey & Morest, 2006), as this was a purported goal and potential outcome of the program.

Research Sites, Population, and Sample Description

It is important to clarify that the recent alumni of St. Petersburg College illuminated the research questions with their actual experiences. Initially, this research study aimed to include survey questionnaires completed by a minimum of 100 teacher education graduates combined from both St. Petersburg College (SPC) and the University of South Florida (USF). However, considerably more responses were obtained.

St. Petersburg College (SPC), the first community college in Florida to confer the baccalaureate degree, is a unique institution in many ways. Founded in 1927, it is the oldest 2-year college in Florida, and it now has over 27,000 students enrolled (based on the Fall 2008 Headcount of 27,076 in *SPC Factbook*, 2008-09, Table 3, p. 8). Total combined upper-division enrollment at St. Petersburg College in Fall 2008 was 2,810 and 589 completers in the academic year (*FLCC Fact Book*, 2008-09, Table 3, p. 46). This was a large number of enrollments and baccalaureate graduates compared with other community college baccalaureate degree programs in Florida, and SPC is older than the others. SPC has been offering baccalaureate programs since Fall 2002 (Alumni Survey, 2004-05) and provides a wide variety of baccalaureate degrees besides education; moreover, SPC's service area covers some urban areas as well as three counties with large rural areas. At this point, three of the SPC campuses offer the education baccalaureate degree—St. Petersburg/Gibbs, Clearwater, and Tarpon Springs—along with one offsite center in Hillsborough (Brown & Burniston, 2008). In addition, many courses are available online to students who are not able to commute to campus for all of their classes.

At the end of the Fall semester in 2007, a total of 525 students were enrolled in teacher education baccalaureate programs with Elementary Education being the fastest-growing and most popular major. When sorted by major, 296 students were enrolled in Elementary Education, 178 students were enrolled in Exceptional Student Education, 27 students were enrolled in Secondary Math Education, and 24 were enrolled in Secondary Biology Education (*SPC Factbook*, 2008-09, Table 18, p. 25).¹⁸ Enrollment in the teacher education baccalaureate programs as of Fall 2008 was up to 616 students (*SPC Factbook*, 2008-09, Table 3, p. 8).

Alumni from the first four baccalaureate education majors offered by SPC were included in the target population: elementary education, K-12 special education, and both secondary math and secondary science education. In 2008-09, SPC's College of Education had a total of 177 teacher education graduates: 87 in Elementary Education, 64 in Exceptional Student Education, 13 in Secondary Math Education (Grades 6-12), and 13 in Secondary Biology Education (Grades 6-12) (*SPC Factbook*, 2008-09, Table 31, p. 46).

Overview of the Research Design and Instrumentation

The alumni survey administered for the current study (as shown in Appendix C), was based on a combination of two existing surveys, described in greater detail below. Both of the parent instruments had already been piloted and administered; the National Survey of Teacher Education Program Graduates (NSTEPG) was utilized by several state

¹⁸Please note that the most recent enrollment data by Florida CIP code in the *SPC Factbook* 2008-09 is for the Fall 2007 enrollment. (The CIP code stands for Classification of Instructional Programs as organized by the National Center for Education Statistics, U.S. Department of Education.)

universities (see Appendix A), and the second was an Education Alumni Survey created by another community college baccalaureate program in Florida, Miami Dade College (see Appendix B). The survey utilized in the present study captured a wide range of demographic and academic information about the students as well as their rating of the overall quality of various aspects of their baccalaureate program and their self-ratings of a wide variety of teaching competencies. The survey questionnaire for the current study also asked four open-ended questions in order to add the individual voices of the graduates to their data.

The National Survey of Teacher Education Program Graduates

To better understand the experiences of community college baccalaureate graduates of teacher education programs and to explore how they may differ from those of traditional state university graduates, several questions from a nationally-normed survey instrument were incorporated into the survey questionnaire of the present study. That instrument is the National Survey of Teacher Education Graduates (Rahman, 2000), the results of which form the National Database for Teacher Education Follow-Up Studies based at Ohio State University. The author, Bill Loadman, offered the current researcher permission (personal communication, October 2007) to utilize his survey instrument questions for the current dissertation research. The questions in Loadman's survey answered this study's research questions on graduates' perceptions of program quality as well as their knowledge and pedagogical skills. In addition, the survey collected data on students' backgrounds prior to enrollment, employment after graduation, and job satisfaction.

The National Survey of Teacher Education Graduates (attached as Appendix A) was piloted in 1988 at Ohio State University and at Tennessee Technological University (Rahman, 2000), and later revised in 1991 and 1994 (Klecker & Loadman, 1999). The survey was designed by a panel of evaluators from 10 institutions who pooled, edited, and formed new questions to match the content of their teacher education programs based on prior individual follow-up surveys used at 18 institutions (Freeman, 1988; Klecker & Loadman, 1999; Rahman, 2000) and to meet national accreditation standards (Loadman, Freeman, Brookhart, Rahman, & McCague, 1999). In fact, NCATE standards from 1992 (and also from 2000) included specific criteria requiring that follow-up studies of graduates be conducted and that the results of those studies be utilized to modify and improve programs (Brookhart, Loadman, & Freeman, 1989; Klecker & Loadman, 1999). Prior to the development of the national survey instrument, surveys were institutionally-bound because different instruments were used for each program evaluation (Loadman, Freeman, Brookhart, Rahman, & McCague, 1999). Therefore, one goal of the authors of the instrument was to help establish national norms, comparisons, and research opportunities for institutions who were interested in volunteering their participation (Loadman, personal communication, 2007; Loadman, Freeman, Brookhart, Rahman, & McCague, 1999).

[The stated] objectives of this [survey] instrument are to provide (a) insightful interpretation of the quality of teacher education graduates at each institution, (b) descriptions of teacher education graduates from a broad cross-section of the country, (c) institutional norm data for items and subscales contained in the instrument, (d) assistance to agencies involved in accreditation with common data across institutions, and (e) opportunities to inquire into the area of teacher education. (Loadman, Freeman, Brookhart, Rahman, & McCague, 1999, p. 77)

The validity of the survey questions was documented by matching the contents of the items on the instrument to concepts from the literature on teaching and teacher education (Brookhart, Loadman, & Freeman, 1989; Klecker & Loadman, 1999). In addition, the length and item clarity, as well as the specificity of the directions and the spacing of the items, were considered (Loadman, Freeman, Brookhart, Rahman, & McCague, 1999). The internal consistency, or reliability, of the instrument was established with Cronbach's Alpha calculations; for example, the Alpha for the program quality scale with 7 items was .76 (Rahman, 2000, p. 45). Further informal evidence for reliability came from using the survey over time at Duquesne University and Ohio State University with strikingly consistent results for each institution, even though the results differed widely by institution (Loadman, Brookhart, & Freeman, 1990, in Rahman, 2000).

The current version of the survey collected data from graduates in six areas with four subscales (Klecker & Loadman, 1999). The six main categories of questions covered: demographic and other background information, employment status and career satisfaction, and ratings of pre-service program quality; for graduates who are teaching: perceptions of teachers' roles and responsibilities, self-ratings of their teaching skills, and self-assessment of their mastery of teacher education program content (Klecker & Loadman, 1999; Loadman, Freeman, Brookhart, Rahman, & McCague, 1999). Two of the subscales in the survey utilized a 7-point Likert scale to rate various aspects of job satisfaction from very negative to very positive, and to rate various aspects of program quality from exceptionally weak to exceptionally strong. The other two subscales utilized a 3-point Likert scale, from weak to adequate to strong, to evaluate graduates'

perceptions of their own knowledge and understanding of various aspects of the curriculum, as well as their ratings of their own mastery of numerous pedagogical skills.

More than 30 institutions administered the survey, mostly large state-supported schools including Ohio State University, Michigan State University, Iowa State University, and Arizona State University (Loadman, personal communication, 2007). The responses are stored in a national database at Ohio State University. Loadman (personal communication, 2007) explained that the most recent large series of data were collected in 2001, before the No Child Left Behind Act became effective in 2002. Therefore, the instrument and responses do not reflect the contentious NCLB standards nor do they contain any new contentious survey questions which could have been developed in association with that hotly-debated legislation.

The national survey data that were collected regularly in 2001 and prior were used to create norms and to assess relative status of items and subscales. This was helpful in determining areas where programs were excelling or had been rated short of norms, and specific weaknesses had been pinpointed and needed to be addressed (Loadman, Freeman, Brookhart, Rahman, & McCague, 1999). The instrument has been administered in many different iterations because institutions have been able to customize the survey form and delete or add questions of interest to their own programs (Rahman, 2000). For example, an institution interested in the job searches of graduates or their ratings of the career placement office at their institution may have added questions to collect such specific data (Loadman, Freeman, Brookhart, Rahman, & McCague, 1999).

Miami Dade Baccalaureate Education Survey and Florida Standards

The other survey instrument from which questions were taken to build the questionnaire for the present study is utilized by only one institution, Miami Dade College (MDC) (see Appendix B for a copy of that instrument). However, that institution is a community college in Florida that has a well-established institutional research office, and it must follow the regional accreditation and Florida's state education department guidelines and accomplished practices. In addition, MDC, like SPC, has also vertically expanded to confer baccalaureate degrees in education. Therefore, the kinds of questions that concern MDC researchers about alumni are likely to also be of interest to researchers examining SPC's education programs.

As Burrows (2002) and Petry (2006) explained, the initial state approval process for offering the community college baccalaureate programs at SPC was unusually easy because the enabling legislation (SB1190, later combined with SB1636 and linked to SB1162) was tacked on at the last minute to the end of a lengthy Florida Senate Bill before being recognized as a part of a widespread and controversial trend that has rapidly gained popularity across the state of Florida and in various other states. In fact, the guidelines and requirements for other community colleges in Florida to offer new baccalaureate programs were later made more rigorous. J. David Armstrong, the former Chancellor of the Florida Community College System, explained that a stringent process was put in place to review and approve proposed community college baccalaureate programs which address the "need and demand, academic rigor, articulation requirements, faculty qualifications, institutional facilities, resources (including library holdings), and documentation of attempts to partner with existing upper division colleges

and universities” (Armstrong, 2006). By contrast, the guidelines for St. Petersburg College to establish baccalaureate degrees merely require approval from SPC’s own Board of Trustees. In 2009, the guidelines were further detailed for the new Florida College Systems’ remaining 27 community colleges to follow. This also included information such as: regions to be served, a timeframe for implementation, and financial data on the institution’s commitment to the program as well as hidden costs to students (in Florida Statute, 1007.33). However, in this new legislation, SPC retained its original greater autonomy. Perhaps as a concession to the other community colleges which have been granting baccalaureate degrees for more than three years, now they too could apply for possible future exemption from the State Board of Education approval process (Florida Statute, 1007.33). Utilizing questions borrowed from the MDC survey instrument for the present study provides SPC (and USF) a chance to be examined under the same level of scrutiny required of all of the other community college baccalaureate programs. This may be important if at some point in the future, the separate standards for SPC are abolished or if the standards for the older community college/state college baccalaureate programs become more stringent or if they face opposition from the State University System (in a battle for turf or funding); then, measuring their effectiveness under similar standards becomes more critical.

It is useful to explain the numerous standards that all of the ongoing education baccalaureate programs in Florida must meet because they are the framework upon which the MDC survey instrument was built (and because as mentioned earlier, the MDC instrument is a parent instrument to the present survey). All of Florida’s education programs are assessed on their graduates’ ability to meet the 12 Florida Educator

Accomplished Practices (FEAPs) or competency benchmarks established in 1996 by the Florida Education Standards Commission of the Florida Department of Education (Tomei, 2007). The FEAPs detail required competencies for pre-professional, professional, and accomplished teachers along with extensive sample key indicators. The 12 standards cover the following competencies: Assessment, Communication, Continuous Improvement, Critical Thinking, Diversity, Ethics, Human Development and Learning, Knowledge of Subject Matter, Learning Environments, Planning, Role of the Teacher, and Technology. It is important to note that by meeting the FEAPs, Florida teacher preparation programs are also meeting the highly compatible Core Standards of INTASC (Interstate New Teacher Assessment and Support Consortium) (Tomei, 2007). In addition to FEAPs, a 2000 Florida Statute delivered what is referred to as Standard 8 guidelines (also known as State Board of Education Rule 6A-5.066) for approval of the development of new teacher education programs. Standard 8 guidelines require a range of items from student prerequisites for admissions to curricular content and institutional data collection for assessing the performance and satisfaction of graduates (FLDOE, 2000).

The proficiency of teacher candidates in the general subjects of English language skills, mathematics, and reading is also evaluated in the Florida Teacher Certification Examination General Knowledge Test. Specific subject matter competencies of teacher candidates (such as Secondary Math, Elementary Education, English to Speakers of Other Languages K-12, and Exceptional Student Education K-12) are evaluated in Florida's Subject Area Examinations. However, it is difficult to evaluate test scores by program because program completers are required to pass these tests before graduating and, therefore, all institutions appear to have 100% pass rates. In addition, the present

researcher had contacted the State of Florida's Education Data Warehouse in 2006 in order to request the Florida Teacher Certification Exam (FTCE) pass rates by institution. However, the present researcher, similar to the experience of Manias (2007), was not granted access to those data.

Although the Florida Senate offers more lenient standards in evaluating St. Petersburg College's new baccalaureate programs, their institutional research officers use an extensive range of tools to evaluate their new baccalaureate degree programs. In education, SPC's Institutional Program Evaluation Plan (IPEP), as required annually by Florida State Rule, is based on the Florida Education Accomplished Practices (FEAPS) and Standard 8, both mentioned above, as well as by the Southern Association of College and Schools (SACS), their regional branch of the Commission on Colleges. In addition, St. Petersburg College is currently preparing to apply for professional accreditation for its education baccalaureate programs under TEAC in 2010 (Brown & Burniston, 2008) and, therefore, are preparing a report for TEAC, an Inquiry Brief, to provide evidence of the quality of their teacher education students' learning. St. Petersburg College's internal data collection has included student records data on GPA and CLAST performance (note that College Level Academic Skills Test [CLAST], as of July 2009 is no longer being administered) as well as the following surveys: Entering Student, Enrolled Student, Employer, and Alumni.

In addition to the questions in the present study from the National Survey Instrument, questions from MDC's survey instrument were added that incorporate indicators of effective performance that are required of Florida teachers. They were related to institutional preparation of students for the Florida Comprehensive Assessment

Test (FCAT), an essential tool of the state system of educational assessment and accountability (Wilde, Flood, & Milton, 2006). Moreover, survey questions were also incorporated that were based on the 12 FEAPs (as explained earlier), which offer benchmarks of what is expected of certified Florida teachers both in their state certification Exam of Professional Education and in the evaluations of the teacher education programs that prepare them.¹⁹ Miami Dade College (MDC), following SPC, began offering a smaller number of community college education baccalaureate degrees and developed a Baccalaureate in Education Alumni Survey, asking their graduates to self-rate their FEAP-based skills and knowledge (see Appendix B for a copy of MDC's survey). The questions that MDC's survey utilizes are clearly written and succinct, as compared to lengthier surveys written by other institutions' IR departments; the survey has been piloted and completed by numerous graduates of a community college-based education baccalaureate degree in the same state. Therefore, the researcher included several questions from the MDC survey in her survey of SPC and USF graduates. It is important to note that the researcher was granted permission to utilize questions from the MDC survey from MDC's IR office (Bashford, 2008, personal communication). As MDC's program grows and there are more graduates, it would be interesting for future research to make comparisons between the baccalaureate programs offered by MDC and SPC. Finally, four open-ended questions designed to explore baccalaureate access, alternatives, and challenges were added to the present survey to consider whether these issues may differ for community college-based baccalaureate graduates and SUS

¹⁹In situations where a question from the MDC survey was very similar to a question from the National Survey, the question from the National Survey was excluded from the present study's draft questionnaire.

graduates. Two of the four open-ended questions were taken from the MDC survey. They asked graduates to voice their favorite aspects of the programs and to describe areas where programs could be improved. The final two open-ended questions were added by the researcher. One question asked graduates to describe the biggest challenges or problems they faced while enrolled. That question was added by the researcher in order to explore issues of access in this study and how they might differ by institution. The last question, also added by the researcher, asked graduates if there was anything else they wanted to share about their programs. That question was added to offer graduates a chance to further express themselves in case they had concerns that had not been sufficiently covered by the survey instrument.

Justification of Survey Research Methodology

Rea and Parker (1997) explain that surveys are useful for collecting “three types of information: *descriptive, behavioral, and preferential*” (p. 4). Surveys typically contain questions to determine descriptive characteristics such as the respondent’s income, age, and ethnicity in order “to better understand the larger population represented by the sample” (p. 4). Survey research is useful for determining the behavior of respondents such as individual college students’ use of various services and facilities—for example, libraries, tutoring, financial aid, counseling services, and so on. Rea and Parker (1997) explain that surveys are also useful for soliciting “the respondent’s opinion about a variety of conditions and circumstances. The hallmark of this type of survey is the public opinion poll, which seeks opinions and preferences regarding issues of social and political relevance” (p. 4). The survey in this study was utilized for all three of these purposes: to describe the graduates’ characteristics; to determine their current

employment; and to rate their skills and knowledge as well as the perceived quality of various program offerings.

Fowler (2002) explains that a researcher may conduct a census that gathers information about every individual in a population; however, a great benefit of surveys is the option “to select a small subset of the population representative of the whole population” (p. 5). He explains further that the key to good sampling is to find a way to give nearly all population members a chance of being selected. In this study, the entire population of interest is the approximately 632 community college teacher education baccalaureate graduates from SPC (as calculated from the *SPC Factbook*) in four majors over the first five academic years that SPC conferred baccalaureates.

In survey design, it is important to reduce measurement errors based on unclear wording or the “structure” of questions, as Salant and Dillman (1994) explain (p. 18). Therefore, pilot surveys were already administered to “test questions to find out if they are well understood and if the answers are meaningful” (Fowler, 2002, p. 6). The pilot survey for the questions from the National Survey of Teacher Education Program Graduates was conducted with groups of teacher education baccalaureate graduates from a variety of different major fields of study (Elementary Education, Special Education, Math and Science Education, etc.), as mentioned earlier, at two state universities in 1988, revised in 1991 and 1994, and administered widely thereafter (Kleckler & Loadman, 1999; Rahman, 2000). The questions taken from the MDC survey were already piloted and then administered annually on that campus from 2005 to the present.

Because the vast majority of the survey questions had already been piloted, a large pilot study was not needed for the present study. However, two recent graduates of

teacher education baccalaureate programs were asked to review the instrument to double-check its clarity with what could be called a mini-pilot of the survey instrument.

Consideration of Human Subjects

In order to respectfully protect the privacy and rights of human subjects, SPC required the completion of several forms to obtain permission to conduct research on their campuses, including the: Access to Confidential Data Researcher Agreement, Application for Research Study, and the Research Committee Checklist. The researcher had already obtained training for the IRB at Teachers College and was awarded a certificate for completion of that training workshop. After the proposal hearing in May of 2008, IRB approval from Teachers College was requested; a letter of exemption was granted and is included in Appendix D. In addition, IRB exemption from USF was requested by the researcher and a letter stating that no USF IRB oversight or review was indicated (see Appendix E) was granted in July of 2008. Lengthy SPC study review board forms were also completed and permission was granted in October of 2008 to conduct this research study (see Appendix F for approval correspondence).

Procedures for Data Collection and Comparisons with Parent Populations

Ideally, to maximize the sample size of SPC survey respondents, all of SPC's teacher education baccalaureate graduates would have been asked to participate in the survey. However, that would have required SPC to either share their graduates' home or e-mail addresses or at least to forward the researcher's survey questionnaires to either their home or e-mail addresses. As stated in the SPC study review committee's

permission letter in Appendix F, no contact information would be shared with the researcher.

Initially, to attract survey respondents, permission was granted to the researcher to post a small invitation, with a link to the online version of the survey, on the private SPC College of Education alumni website. The alumni website is not widely used and only two survey respondents were gleaned through that approach. After discussions with SPC administrators and Pinellas County School Board officials, additional respondents were sought through a mass e-mailing to teachers in Pinellas County. (E-mail addresses, albeit some outdated and incomplete, of the employees of many of that county's schools were listed openly online at the websites of many individual Florida public schools.) A survey invitation was sent to every teacher's e-mail address that could be found online from the schools in Pinellas County, and also throughout Florida, for those schools that were noted to have employed even one SPC graduate in the *SPC Factbook*. That mass e-mailing, with the stakes raised of winning an iPod for 1 out of every 20 respondents, did attract 29 more respondents who were currently working as teachers. However, the goal for this study was to attract a minimum of 50 respondents from each institution.

Therefore, the researcher spoke again with SPC administrators and asked for copies of the graduation programs listing the names of education baccalaureate graduates by major and date of graduation. However, it is important to note that not all of the 720 graduates were contacted because the schools were listed as employing perhaps only a single SPC education graduate in 2006 who may no longer be working there, and the employers of more recent graduates were not available. In addition, as mentioned above, a small link to the survey was posted on the SPC College of Education alumni website,

and it is unclear how many people saw that invitation but chose not to respond. It is also not possible to determine the exact number who were contacted because the accuracy of whitepages.com and Facebook.com in identifying the correct one of several, for example, Jane Smiths is unknown (in several cases, more than one person with a common name was sent a survey invitation in the hope of locating the one SPC graduate with that name). Graduates with more unique names were more likely to be located successfully through both of these online venues. About 100 surveys were sent out to whitepages.com addresses of people with the same names as those in the SPC COE graduation programs and who were living in or near the Tampa Bay area, and another 300 online survey invitations were made via Facebook.com to members whom had the same names as SPC graduates in that region.²⁰ This round of invitations to SPC's COE graduates to participate in this survey research came with an increased chance of 1 in 20 (instead of 1 in 50 for SPC graduates) to win an iPod. Not every SPC graduate in the population of graduates was contacted via some form and invited to participate in this study, while others—for example, those graduates with unique names—were likely to have been invited more than once via online sources such as Facebook.com and Whitepages.com. Keeping those caveats in mind, the search for individuals named in SPC's graduation programs returned an additional 58 SPC graduates who were working in educational settings. With research questions focused on teacher preparation, it was not clear from the graduates who were not teaching if they could accurately evaluate their current teaching

²⁰Sometimes invitations were sent out to the same graduates via both venues, and in some cases more than once via Facebook: for example, by using the friend request feature, the regular e-mail feature within Facebook, and in some cases yet again via the alumni and social networks where one respondent was asked to invite their fellow classmates to participate in the survey research, with the incentive of adding the graduate who made a successful referral to gain another entry into the iPod raffle.

ability. Therefore, when faced with many more responses than the 50 requested for each college by the initial dissertation committee, the researcher chose to eliminate the 27 SPC graduate respondents who clearly delineated they were not currently in teaching positions, thereby focusing the data analysis on the 89 SPC graduates who indicated that they were currently either working as classroom teachers or in an educational setting.

To determine if the sample of SPC graduates utilized in this study were representative of the SPC population, the *SPC Factbook 2008-09* was utilized. It lists the Annual Graduates by Program for five academic years from 2003-04 up to 2007-08. Although the survey data for this study were based on calendar years rather than academic years, the *SPC Factbook* data were utilized to create percentages of respondents by major (excluding students from the “other category” who did not fit the list of majors intended for this study). Table 2 below was created to highlight the comparison between the sample data and institutional data distributed across majors.

Table 2. *Comparison of Majors of SPC Sample with SPC Population*

| | Institutional Data | Sample Data |
|------------------------------|--------------------|-----------------|
| Elementary Education | 364 (58%) | 49 (56%) |
| Exceptional Student Ed (ESE) | 187 (30%) | 29 (33%) |
| Secondary Mathematics | 49 (8%) | 5 (6%) |
| Secondary Science | 32 (5%) | 4 (5%) |
| Total | 632 | 87 |
| $\chi^2 = .821$ | df = 3 | p (of t) = .844 |

Source of Institutional Data: *SPC Factbook 2008-09*

Note: Since “Other” category from survey respondents could not be matched to institutional data, it was removed from this comparison reducing effective sample from N = 89 to N = 87.

When these figures from the parent population were compared to the distribution of the respondents of this study, the outcome was quite similar and therefore appeared to be a sample representative of the target population. To the extent that college major defined this population, it may be possible to argue with some vigor that the findings for this study may be generalizable to the population of SPC education baccalaureate graduates from 2004-08. (The researcher had also hoped to make some comparisons between the USF sample and USF population based on major; however, the institutional data were not available by major.)

Comparisons were also made by gender to ascertain whether the SPC sample was representative of the SPC target population. A simple 2x2 Chi-square test with the 10 males and 79 females from the SPC sample, compared to the 348 males and 2,208 females in the SPC parent population, gave the following results: $p = .52$, $\chi^2 = .416$, with one degree of freedom (see Table 3 below). This test showed that in fact there was no statistically significant difference between the SPC sample and the SPC parent population based on gender distribution and that the sample may have been representative of the target population based on gender. Therefore, to the extent that gender defines this population, it may be possible to argue with some vigor that the findings for this study may be generalizable to the population of SPC baccalaureate education graduates from 2004-08.

Table 3. *Comparison of Gender of SPC Sample vs. SPC Parent Population*

| Years 2004-08 | Male | Female | Total | Percent Male |
|---------------|------|--------|-------|--------------|
| Sample | 10 | 79 | 89 | 11.24% |
| Population | 348 | 2,208 | 2,556 | 13.62% |

p = .52
 $\chi^2 = .416$
df = 1

Source: *SPC Factbook* 2008-09, p. 10

Table 4. *Comparison of Ethnicity of SPC Sample vs. SPC Parent Population*

| College | White | Black | Hispanic | Asian | Other | Total |
|-----------------------|----------------|-------|----------|-------|----------|-------|
| SPC Sample | 78 | 4 | 2 | 2 | 3 | 89 |
| SPC Parent Population | 440 | 34 | 32 | 6 | 13 | 525 |
| Summary Statistics | $\chi^2 = 3.6$ | | df = 4 | | p = 0.46 | |

The distribution of ethnicity in the SPC sample responses to question 8 was also compared to that of the SPC parent population based on institutional data that appeared in the *SPC Factbook* (p. 30) for end of Fall session headcount by program code for 2007 (see Table 4). (Unfortunately, no data were available on ethnicity for SPC graduates nor were ethnicity data available for every year, which is why enrollment data from 2007 was utilized as a proxy.) The Chi-square test result is 3.6, with 4 degrees of freedom, and significance of 0.46. Based on this examination of ethnic distribution, the sample was not significantly different from the target population. Therefore, to the extent that ethnicity defined this population, it may be possible to argue with some vigor that the findings for the SPC respondents in this study may be generalizable to the population of SPC baccalaureate education graduates from 2004-08.

The first set of mailing labels requested from USF inviting graduates to participate in the present study was based on the same number of baccalaureate graduates from 2004-08 in each of the four initial baccalaureate education major fields as granted to graduates of SPC. It was important to request a matched sample because the population of College of Education graduates from USF spans a much longer period of time, includes a much larger number of alumni, and covers a plethora of majors both at the baccalaureate level and beyond. The researcher communicated several times with USF administrators to narrow down the sample of their graduates to match the SPC sample in terms of representation of graduates by major for each class year. Thus, for example, in academic year 2003-04, there were 26 elementary education baccalaureate graduates from SPC; therefore, the researcher asked for only 26 of the USF baccalaureate in elementary education majors to be randomly selected from the total population of 358 USF elementary education majors from the calendar year 2004. It is interesting to note that the researcher found after communicating with two statisticians and the Dean of the College of Education that USF had more than three times as many graduates as SPC in total from the four majors and five years, or 2,222 graduates compared to SPC's 632 graduates. Therefore, the researcher provided an Excel spreadsheet (see Table 5 below) of the number of graduates from each of the four majors at SPC by year of graduation and asked USF to randomly generate a sample that matched it in terms of the total numbers and distribution of graduates by major and year. (It is important to note here that the sample drawn from USF was designed to match the SPC sample as specified in the *SPC Factbook*; therefore, the USF sample cannot be considered representative of the entire pool of USF teacher education graduates which spans many additional years and

majors than the SPC sample.) However, the researcher did ask for the USF sample to at least be randomly generated with a distribution by year and major to match the SPC sample; therefore, it should be representative of the USF graduates within those parameters.

Table 5. *Request of USF to Randomly Generate a Total of 632 Mailing Labels Distributed by Year and Major Code*

| | Year | | | | |
|-----------|------|------|------|------|------|
| | 2004 | 2005 | 2006 | 2007 | 2008 |
| Major | | | | | |
| BEE | 26 | 59 | 86 | 106 | 87 |
| BEX | 14 | 28 | 40 | 41 | 64 |
| BMA | 6 | 6 | 17 | 7 | 13 |
| SCE:BSB | 2 | 4 | 5 | 8 | 13 |
| TOT by YR | 48 | 97 | 148 | 162 | 177 |

However, based on that first mailing of 632 surveys to USF graduates, the yield was only 42 completed surveys returned, or a mere 6.6%. That first USF mailing offered an optional iPod raffle to one out of 100 respondents from USF. With a goal in place to obtain a minimum of 50 completed surveys, additional respondents were sought through a mass e-mailing to teachers in Pinellas County as well as to teachers who were noted in the *SPC Factbook* from 2008-09 as employing SPC graduates. That approach, combined with offering an iPod to 1 out of every 20 respondents, did attract more respondents who were currently working as teachers. However, many completed questionnaires were submitted by graduates of other institutions from across the country that were not a part of this study and also by USF graduates from many years and even decades prior to the focus of this study (USF has been conferring education baccalaureate degrees since

1962). A more careful distillation of the completed surveys was required, and after sticking to the strict parameters of USF graduates from the years 2004-08 who were currently working either as teachers or in education, a total of 90 USF survey respondents were utilized for this study, indicating a 14.2% response rate for USF.

The survey was administered both by mail and online with Survey Monkey software; the online data were collected by same, and when hard copy surveys were returned their responses were manually entered into Survey Monkey. (The researcher purchased an annual professional subscription to Survey Monkey to offer respondents their easy-to-follow customized online survey option.) Descriptive statistics were analyzed such as sample size, means, and standard deviations, as well as Chi-squared tests and t-tests where appropriate, and also tests of significance, where the cut-off for statistical significance utilized for this study was p less than or equal to .05. In addition, a codebook version of the data summarizing all of the survey responses was prepared (see Appendix G) to visually examine an overview of the frequencies of various responses to each question.

A comparison of gender was also made between the respondents in the sample from USF and the USF parent population. The data for the USF parent population were based on institutional data that appeared online in the USF Info Center for AY 2003-04 through AY 2007-08 for the bachelor's degrees for all majors awarded by the College of Education at USF (there were many more baccalaureate major fields to choose from at USF than at SPC, and this study, including the USF sample, was limited to the first four majors offered at SPC). A simple 2x2 Chi-square test with the 13 males and 77 females from the USF sample, compared to the 426 males and 2,454 females in the USF parent

population, gave the following results: $p = .9287$, $\chi^2 = .008$, with one degree of freedom (see Table 6 below). This test shows that in fact there was no statistically significant difference between the USF sample and the USF parent population based on gender distribution; therefore, the sample may in fact be representative of the target population based on gender. Thus, to the extent that gender defined this population, it may be possible to argue with some vigor that the findings for this study may be generalizable to the specified target population of USF baccalaureate education graduates from 2004-08.

Table 6. *Comparison of Gender of USF Sample vs. USF Parent Population*

| Years 2004-08 | Male | Female | Total | Percent Male |
|---------------|------|--------|-------|--------------|
| Sample | 13 | 77 | 90 | 14.44% |
| Population | 426 | 2,454 | 2,880 | 14.79% |

$p = .9287$

$\chi^2 = .008$

$df = 1$

Source: <http://usfweb3.usf.edu/infocenter>

Table 7. *Comparison of Ethnicity of USF Sample vs. USF Parent Population*

| College | White | Black | Hispanic | Asian | Total |
|-----------------------|------------------|-------|----------|-------|-------------|
| USF Sample | 72 | 5 | 7 | 2 | 86 |
| USF Parent Population | 2,292 | 199 | 271 | 47 | 2,809 |
| Summary Statistics | $\chi^2 = 0.645$ | | $df = 3$ | | $p = 0.886$ |

Source of Institutional Data: <http://usfweb3.usf.edu/infocenter>

Note: Since "Other" category from survey respondents could not be matched to institutional data, it was removed from this comparison reducing effective sample from $N = 90$ to $N = 86$.

The distribution of ethnicity in the USF sample responses to question 8 was also compared to that of the USF parent population (see Table 6) based on institutional data that appeared online in the USF Info Center for AY 2003-04 through AY 2007-08, for the bachelor's degrees in all majors awarded by the College of Education. (It is important to note that many more majors are offered at USF than just the four that were initially offered at SPC which are the focus of this study.) The Chi-square test result was 0.645, with 3 degrees of freedom, and significance of 0.886. Based on this examination of ethnic distribution, the USF sample was not significantly different from the target population. Therefore, to the extent that ethnicity defined this population, it may be possible to argue with some vigor that the findings for the USF respondents in this study may be generalizable to the specialized target population of USF baccalaureate education graduates from 2004-08.

Procedures for Treating, Coding, and Analyzing Data

Clearly, the main purpose of the analysis was to uncover answers to the research questions—in particular, to uncover the academic experiences of the teacher education baccalaureate graduates of a community college-based baccalaureate program and to consider how they may differ from the academic experiences of graduates of a state university program. In addition, the survey results were triangulated with the student records data from SPC's institutional research office to determine if the demographics of the sample were representative of the population.

The researcher maintained complete confidentiality in terms of students' names and all identifiable characteristics in order to comply with SPC's policy on "Access to Confidential Information." In addition, if the researcher needed to consult with a professor,

including her dissertation sponsor and committee members or an institutional research officer, she kept students' names confidential. The codes and completed survey questionnaires which were assigned to survey respondents were stored under lock and key by the researcher and were password-protected on her personal computer. The ethical issues of protecting confidentiality when conducting research with human subjects have been addressed above.

Design Issues

McDade (1999) explains that design issues such as reliability, validity, generalizability, and triangulation of data sources must be addressed early in the planning of dissertation research. Reliability, as explained by Light, Singer, and Willett (1990), is considered a way to evaluate the reduction of three potential types of measurement error. In this study, because only one rater was used with the surveys and only one survey was administered, potential measurement inconsistencies based on inter-rater reliability and test-retest reliability were not applicable. Furthermore, because only one set of data was available from each alumni survey respondent, no single question was asked of a respondent more than once. Internal consistency also cannot be measured in this study. Empowering alumni to frame and describe a full range of perspectives on their personal academic experiences in the preliminary exploratory approach of the present study may help to later uncover a broader range of the academic experiences that are elicited in future research. In addition, the questions in the vast majority of the alumni survey have already been piloted on a similar population to the target population for this study to help reduce measurement errors prior to administration on the target population.

The generalizability of the conclusions of this study are limited to what Maxwell (1996) refers to as internal generalizability, that is, generalizability of a conclusion within the SPC teacher education baccalaureate setting to the graduates who were surveyed. Depending on how representative of the population the sample of survey respondents was, or if they were included with at least a known degree of certainty, it may be possible to attempt modest generalizations of the results to the population of teacher education baccalaureate graduates at SPC. Because different community colleges offer a range of different baccalaureate programs and majors besides education—and even within education—and because the teacher education curricula vary widely from state to state and instruction varies widely from institution to institution, it would be inappropriate to claim external generalizability (also known as external validity) of the data and conclusions of this study beyond SPC to other institutions. In addition, because the USF target population was designed to match the SPC population in terms of major fields and year of graduation, the responses from the USF sample cannot be generalized beyond those parameters to other class years and majors which were not targeted. It is also important to remember that this exploratory study only examined a few select teacher education baccalaureate programs at two institutions, and these samples were far from representative of either institution in its entirety.

Triangulation was built into the design of this study in many ways. First, survey respondents answered some basic demographic questions to indicate whether they were representative of the target population of the teacher education baccalaureate graduates at their institution. Maxwell (1996) explains that triangulation or collecting data from a diverse range of individuals and settings using a variety of methods is important to reduce

the risk of bias, such as self-reporting and errors of chance association. The survey was disseminated to graduates from four different teacher education baccalaureate major fields and a variety of SPC campuses in order to obtain a more diverse range of academic experiences to represent the population of SPC teacher education baccalaureate graduates. Furthermore, bias due to the researcher's perceptions and values was reduced by utilizing questions from an existing nationally-normed survey instrument and an established local instrument utilized on a similar program in the same state rather than inventing new questions constructed by the researcher.

Another important way that this survey was designed to triangulate data was by surveying students both at SPC and at a nearby state university, USF. It was interesting to see how the respondents from the two institutions differ, as this may point to which differences can be based on type of institution. If the responses from both institutions were similar, this might indicate that academic experience rather than differing type of institution were actually more closely based on all respondents taking accredited baccalaureate-level education courses and meeting Florida state requirements for baccalaureate-level teacher preparation.

Maxwell (1996) explains that questions for respondents should include ones that the researcher is genuinely interested in answering. These "real questions" are likely to be far more context-specific and diverse than the broad, general research questions that are sought in conducting the study (p. 74). In addition, the alumni surveys were not conducted by asking the research questions directly, but rather by providing the data to contribute to answering the research questions.

Maxwell (1996), McDade (1999), and Petry (2005) all recommend that the researcher identify the relationship between the research questions and the instruments. Research Question 1, “How do graduates from both institutions rate the quality of their programs?” was answered by the graduate survey responses to the seven items on program quality in question 28, and the means and standard deviations for each item were generated. Responses from the SPC and USF graduates were compared.

For Research Question 2, “How do graduates from both institutions rate their teaching competencies?” the responses to the graduate survey question 29 on state competencies were analyzed. Comparisons were made between the responses of SPC and USF respondents, and the means and standard deviations for each item and subscale were generated.

The demographic data from the alumni survey were utilized and comparisons were made between the demographics of survey respondents and the SPC target population, as described in the *SPC Factbook*. In addition, comparisons were made between the USF sample and target populations. Further comparisons were made between the demographics of SPC graduates and USF graduates. Various tables were generated to compare the frequency of different student characteristics (age, gender, race, etc.) by the institution which conferred each baccalaureate. With this combination of detailed steps of data collection and analysis, the answers to the research questions in this study were determined, presented as findings in Chapter IV, and discussed for their conclusions, implications, and recommendations for both practice and future research in Chapter V.

Summary

This chapter explained the plan for the methodology of this study. In summary, this study first interviewed key administrators at SPC and USF to collect institutional data and alumni contact information. A survey instrument for this study was developed based on two existing instruments, one national and one local, to cover the main issues of concern to both state university- and Florida community college-conferred baccalaureate degrees. This survey was administered to alumni from both institutions in order to explore students' academic experiences in the first community college in Florida to offer its own teacher education baccalaureate degree and to compare these experiences with those of their counterparts from a nearby state university. This chapter began with a recapitulation of the research questions framing this study. The research methodology chosen for this study was explained and justified. As part of the setting, a brief history of St. Petersburg College (SPC), the first community college in Florida to offer the education baccalaureate degree, including its history, scope, and existing data, was presented. In addition, the population and sample for this study were described. The instrumentation for this research and procedures for collecting and analyzing data were detailed and justified. Because human subjects participated in this study, procedures and applications for their consideration were explained. The IRB study exemption or approval letters as required for dissertation research studies at colleges and universities are attached in Appendices D, E, and F. Finally, design issues such as reliability, validity, generalizability, and triangulation of data sources were considered.

As part of the actual dissertation, findings from the field research (the responses to the alumni survey) are presented and analyzed in Chapter IV. In Chapter V, the

conclusions of the study are presented, including answers to the research questions, implications, and recommendations for future research.

Chapter IV

PRESENTATION OF THE DATA

The purpose of this study was to examine graduates' academic experiences in teacher education programs in the first community college in Florida, St. Petersburg College (SPC), to offer its own baccalaureate degree and to compare them with the experiences of graduates of a nearby state university, University of South Florida (USF). In order to examine the experiences of students, the researcher chose to survey recent alumni (from 2004-08). The survey was conducted to see how graduates from both institutions rated the quality of their programs and rated their teaching competencies. A copy of the final version of the survey appears in Appendix C. In addition, a copy of the codebook version of this study which includes a summary of all of the statistical findings appears in Appendix G.

The complete detailed analysis of the survey results will be described shortly, but first there will be some background on the survey instrument and the response rates obtained for this study. The survey questionnaire (as explained in Chapter III) was closely based on two existing surveys that had already been disseminated. One predecessor of the survey for this study, the National Survey of Teacher Education Program Graduates (see Appendix A), was widely utilized at several state universities across the country and was shown to be reliable and valid with similar populations of teacher education graduates. Therefore, a number of background, employment, and

general program quality questions were taken from that instrument. The other predecessor to the survey utilized for the present study was an alumni survey instrument developed by another community college baccalaureate degree-granting institution in Florida, Miami Dade College, which focused on measuring different state and regional accreditation concerns. The questions taken from that instrument focused on the self-assessment of graduates' own teaching skills, abilities, and knowledge. A copy of that instrument, the Miami Dade College Baccalaureate in Education Alumni Survey, can be found in Appendix B.

First, an explanation of the response rates obtained by this study when compared to the population of potential respondents is presented. This chapter then delineates the actual findings of the survey research based on the same logical order of organization as the four main sections of the survey instrument. However, because a summary of all of the responses to the first 27 quantitative questions appears in the Codebook Version of the survey in Appendix G, the first group of findings discussed in the text are limited to only the descriptive statistics (sample sizes, means, and standard deviations) of the background information questions (questions 1-15) which are most interesting and relevant to the present study. This is followed by a discussion of the most interesting and relevant responses to Part B of the survey, the employment in education section (covering questions 16-27). Next presented are the detailed findings of the third section of the survey, Part C, where the answers to the research questions of this study reside. Here, the survey asks question 28, which contains 7 component questions about graduates' perceptions of various aspects of the quality of the program that they attended, and also question 29, which poses 18 detailed sub-questions about how graduates rate their own

individual teaching competencies. The last section of the presentation of findings describes the responses to the four open-ended questions (30, 31, 32, 33) which ask about respondents' challenges and favorite aspects of their baccalaureate in education program as well as how it could be improved, followed by a final question inviting respondents to share any additional information about their experience in the programs. These findings are presented for SPC graduates and USF graduates separately by institution based on the emerging themes relevant to this study that appeared in each institution's individually-written alumni responses.

Response Rates

The total number of graduates who earned education baccalaureate degrees from St. Petersburg College (SPC) from 2004-08 was 632. This was according to data available in the *SPC Factbook 2008-09* for graduates of academic year 2003-04 through graduates of academic year 2007-08 for the first four education baccalaureate majors offered at SPC (Elementary Education, Exceptional Student Education, Secondary Biology Teacher Education, and Secondary Mathematics Teacher Education). Therefore, the USF sample of graduates was originally designed to be randomly selected while also mirroring the 632 SPC graduates in terms of major field and class year. Although it would have been ideal and would have provided a more accurate comparison for this study if separate institutional data had been available on only the graduates who were teaching and if the data on year of graduation had also been available for each calendar year (similar to USF) rather than for each academic year, limited data were available from SPC for this outside research study. However, the *SPC Factbook* does indicate that nearly all of the baccalaureate education graduates from what are referred to here as the

first three years of awarding baccalaureate degrees in education—2004, 2005, and 2006; only 2 of the 113 graduates who responded to SPC's own Recent Alumni Survey said they were not employed in their field.

It is important to note that the total number of SPC's named education baccalaureate students, based on the programs printed for graduation ceremonies for the years Summer 2004-Spring 2008, actually turned out to be 720; there may be some duplicates, particularly for dual degree earners. However, this figure is considerably higher than the 632 graduates who were listed in the 2008-09 *SPC Factbook*. The *SPC Factbook* data are calculated based on academic years; therefore, the last 2008 graduates in that figure would have included the graduates from the Spring graduation ceremony in May 2008. However, this figure of 720 SPC named graduates did not include graduates from the ceremonies in July and December of 2008 (although the USF sample did include some graduates from the second half of 2008 because their data on graduates are reported based on calendar year of graduation). It is important to note here that because this is a preliminary exploratory study, the available data on SPC graduates from the *Factbook* were utilized in designing this study and determining the initial target population at USF.

For the purposes of an exploratory research study, the simplified and perhaps artificially low or more conservative response rate of 12.4% was based on a total of 89 teaching SPC baccalaureate graduates who answered this survey, out of the large total population of 720 SPC College of Education named graduates from graduation programs (teaching and not teaching, and both contacted and not contacted). Research indicates that about 1/3 of newly-hired teachers leave during their first three years; only about half

remain in teaching after the first five years (NCTAF, 2003). The numerator of the response rate calculated above was based on just the SPC graduates who were found to be teaching; therefore, the respondents who were not found to be teaching should also be eliminated from the denominator. The researcher estimates that only 300 graduates were actually contacted through their employment, Facebook or whitepages.com. Therefore, a more realistic denominator could be estimated as $2/3$ of the 300 contacted graduates or 200 teaching graduates. Based on these assumptions, the response rate could be estimated at $89/200$, which equals 44.5%.

Due to the initially low response rates by USF graduates to the surveys sent by regular mail to the first 632 graduates, online requests for surveys to be completed by additional USF graduates were made. However, many completed questionnaires were submitted online by graduates of other institutions from across the country, who did not read the invitation letter carefully and hoped to win an iPod but were not a part of the intended target population of this study. In addition, there were several submissions from USF graduates from many years, even decades, prior to the focus of this study (USF has been conferring education baccalaureate degrees since 1962) and a handful of respondents submitted more than one completed survey questionnaire. A more careful distillation of the completed surveys was required, and after adhering to the strict parameters of USF graduates from the four specified majors and from the years 2004-08 who are currently working in education, a total of 90 USF survey respondents were utilized for this study. However, utilizing a denominator of 632 is likely to be artificially high, leading to an unusually low response rate because not all of those 632 graduates were working in educational settings. Therefore, based on research indicating that about

1/3 of hired teachers leave during their first three years (NCTAD, 2003), the denominator could be corrected to be 2/3 of 632 or 421 in order to approximate just the teaching USF graduates. Therefore, the response rate of USF teaching graduates is estimated as 90/421 or about 21%. In addition, as explained in Chapter III in the discussion on data collection, some USF survey respondents from the class years 2004-08 were gleaned via other venues, including the mass e-mailing that was sent to teachers who had graduated from USF who were found to be working in a variety of public schools that had been reported as employing SPC graduates.

Demographic Findings

In order to get a clear picture of the respondents who completed questionnaires for this study, the demographic findings of the survey samples, as described above, are presented. Many basic demographic questions were posed in Part A, the Background Information section of the survey. The first question, number 1, was utilized to make certain that completed questionnaires were in fact from the desired survey population. However, because this question was rather similar to the one posed at the very end of the survey (in the iPod raffle form), and for the purposes of this particular study, the more simple and consistent responses to that question, number 36, which looked just at the year and not the month of graduation, were analyzed (see Table 8).

In terms of the distribution of the survey respondents by major, asked in survey question number 2 (see Table 9), there was a predominance of Elementary Education majors. It was by chance that there were more SPC than USF ESE majors surveyed because the parent populations were matched in terms of distribution by major.

Table 8. *Respondents' Year of Graduation by College*

| Year of Graduation | College | | Total |
|--------------------|---------|-----|-------|
| | SPC | USF | |
| 2004 | 12 | 16 | 28 |
| 2005 | 18 | 22 | 40 |
| 2006 | 16 | 20 | 36 |
| 2007 | 17 | 12 | 29 |
| 2008 | 26 | 20 | 46 |
| Total | 89 | 90 | 179 |

Chi-Square = 3.055 df = 4 p = .549

Table 9. *Respondents' Baccalaureate Major within Education by College*

| Major | College | | Total |
|------------------------------------|---------------|---------------|-------|
| | SPC | USF | |
| Elementary Ed. with ESOL K-6 | 49 (55.0%) | 58 (64.4%) | 107 |
| Exceptional Student Education K-12 | 29 (32.6%) | 14 (15.5%) | 43 |
| Secondary Math Education 6-12 | 5 (0.06%) | 8 (0.09%) | 13 |
| Secondary Science Education 6-12 | 4 (0.04%) | 2 (0.02%) | 6 |
| Other | 2 (0.02%) | 8 (0.09%) | 10 |
| Total | 89 | 90 | 179 |

The responses to question number 4, which asked if respondents had applied to any other teacher education baccalaureate programs, revealed that the vast majority of respondents indicated they had not. Over 90% of both the SPC respondents (84 out of 89) and USF respondents (82 out of 90) indicated they had not applied to other teacher

education baccalaureate programs. When asked to list where else they had applied, only 8 respondents named the other institutions, and 5 used the blank to provide comments that further explained their yes or no answer. Part of the reason for asking this question was to see if there was overlap in terms of graduates having applied to both SPC and USF. However, those findings were scarce and did not provide any such evidence. (It is interesting to note that one of the SPC graduates who did not apply to any other programs chose to comment that she (or he) had attended USF Tampa many years previously but had dropped out and had chosen not to reapply to USF when deciding to attend college again.)

The next survey question, number 5, asked respondents how many of their classes they took online. The answer with the largest percentage of respondents from both institutions, with over 40% of respondents from each institution, had taken 4-5 online classes. The most notable difference in the number of online classes taken by respondents was that a larger percentage (9%) of SPC respondents (8 out of 89) indicated that they had taken more than 9 online classes, whereas only 3 out of the 90 USF respondents (3%) had taken more than 9 online classes.

The survey questionnaire went on to ask about gender in question number 6, and the findings from both institutions were quite similar (see Table 9). Over 85% of the respondents from both institutions indicated that they were female, and the remaining students were male. In fact, 11.2% of SPC respondents were male and 14.4% of USF respondents were male. When comparing the data from the sample of SPC respondents utilized in this study to the data in the *SPC Factbook*, there were no data on graduates by gender; however, there were data for the five academic years in a table titled "Opening

Fall Collegewide Headcount Enrollment by Gender”; therefore, SPC’s institutional data on enrolled students was used as a proxy for completers (see Table 10).

Table 10. *Gender of Fall For-Credit Student Enrollments at SPC for Years 2004-08*

| Year | Male | Female | Total | Percent Male |
|-------|------|--------|-------|--------------|
| 2004 | 54 | 339 | 393 | 13.74% |
| 2005 | 68 | 423 | 491 | 13.85% |
| 2006 | 68 | 433 | 501 | 13.57% |
| 2007 | 71 | 487 | 558 | 12.72% |
| 2008 | 87 | 526 | 613 | 14.19% |
| Total | 348 | 2,208 | 2,556 | 13.62% |

Source: *SPC Factbook 2008-09*, p. 10

The age of the survey respondents was requested in survey question number 7. It was found that the mean age of respondents from SPC when compared to that at USF was statistically significantly different (see Table 11).

Table 11. *Mean and Variability of Age for Respondents from SPC Compared to USF*

| School | N | Mean | SD | F | <i>p (of F)</i> | <i>T</i> | df | <i>p (of t)</i> |
|--------|----|-------|------|------|-----------------|----------|-----|-----------------|
| SPC | 89 | 35.99 | 9.30 | 7.12 | .008 | 4.48 | 177 | .0001 |
| USF | 90 | 30.23 | 7.82 | | | | | |

The average age of respondents from SPC was 35.99, whereas the respondents who had graduated USF were significantly younger, with an average age of 30.23 ($t = 4.48$, $df = 177$, $p = .0001$). The F test for homogeneity of variance was also significant ($F = 7.12$, $p = .008$), indicating that not only were SPC respondents older than those from USF, but that SPC graduates were also far more variable in their ages. In fact,

the age range of USF respondents was only 21-56, while the age range of SPC respondents spanned from 22 to 61. It is important to note that this study included more recent graduates from SPC than from USF (see Table 8 or Question 1 in Appendix G), but age was not analyzed after being controlled for by graduation year because it would have produced results that could mislead readers about actual age at time of matriculation or graduation which could not be accurately computed from this survey data.

The next demographic question on the survey questionnaire, number 8, asked respondents to indicate their ethnic background (see Table 12). The vast majority of respondents from both institutions, over 80% each, were of White, Non-Hispanic descent. The percentage of Asian or Pacific Islander (API) respondents from both institutions was the same at 2%, and the percentage of Black, Non-Hispanic respondents was also nearly the same at about 5% each. The only ethnicities that showed some differences between their representation in the samples from SPC and USF were the American Indian or Alaskan category, where 2 SPC respondents identified and no USF respondents claimed to be of that heritage. In addition, only 2 respondents from SPC claimed to be Hispanic, whereas 7 of the USF respondents identified as Hispanic. The Chi-square calculation for these data which appear in Table 11 below was $\chi^2 = 3.1$, with 4 degrees of freedom, and $p = .54$.

Table 12. *Respondents' Ethnicity by College*

| College | White | Black | Hispanic | Asian | Other | Total |
|--------------------|----------------|-------|----------|-------|----------|-------|
| USF Sample | 72 | 5 | 7 | 2 | 3 | 89 |
| SPC Sample | 78 | 4 | 2 | 2 | 2 | 89 |
| Summary Statistics | $\chi^2 = 3.1$ | | df = 4 | | p = 0.54 | |

When respondents from both institutions were asked, in question 9, what the highest degree or level of education they hoped to attain, on the lower end of educational level their responses started out as similar, with about one-fourth of respondents from each institution responding that the highest degree they hoped to attain was their bachelor's degree (see Question 10 in Appendix G for more detailed summary data). The most common response from both institutional samples was the goal of a master's degree, with nearly 40% of SPC respondents and a considerably larger proportion, over 55% of USF respondents. The most notable difference between the two samples on the question of educational goals was that a far larger percentage of SPC graduates hoped to earn an Ed.D., Ph.D. or other advanced degree. In fact, 25% of the SPC respondents indicated that they had doctoral-level aspirations, whereas only 9% of the USF respondents indicated that earning a doctorate was their academic goal.

Survey question, number 11, asked respondents to describe why they were not currently in a full-time teaching position. Over 80% of respondents from each institution chose to write in their response, under the response option "other, please specify," that they were actually in full-time teaching positions. (For additional detailed frequency data, please see Appendix G, Question 11.)

Next in the survey were three questions asking respondents to reflect on the perceived benefit of the teacher education program they attended. The responses to question 13 had statistically significant results relevant to this study, as shown in Table 13: Q. 13. "If you had to do it all over again, would you still enroll in a teacher education program?"

Table 13. *Analysis of Variance for Question 13*

| School | N | Mean | SD | F | <i>p</i> (of <i>F</i>) |
|--------|----|------|-----|-------|-------------------------|
| SPC | 89 | 3.72 | .52 | 19.92 | .0001 |
| USF | 89 | 3.43 | .80 | | |

The majority of respondents from both institutions felt so positive about their experiences that they would definitely enroll in teacher education if they had to do it all over again. It is important to note here that these overwhelmingly positive respondents graduated from their teacher education programs and were able to secure positions in educational settings (this exploratory study does not include the voices of potentially less positive program dropouts and unemployed graduates). Interestingly, there appears to be a clear trend in these results where SPC graduates appear to be much more satisfied with their decision at every level of response (see Appendix G for detailed frequencies). In fact, no respondents from SPC indicated that they would definitely not enroll again. At the most positive level, where respondents indicated they would definitely do it all again, over 75% of them would choose the same path, and 58% of the USF respondents would also. Further statistical examination of the responses to question 13 showed that the mean for SPC respondents (3.72) was significantly higher than the mean for USF respondents (3.43). For this question, a score of 3 meant probably yes and a score of 4 meant definitely yes.

The final question in Part A of the survey questionnaire asked respondents to describe their current employment status. If respondents indicated that they were either a classroom teacher or working in education (e.g., as a counselor, librarian, etc.), then they continued on to Part B, which asked numerous questions (12 questions, numbered 16-27)

describing the setting in which they were teaching. However, if the respondents answered that they were not working in a school setting because instead they were working as an instructor/trainer in a non-school setting or as a social service provider, or chose to stop working in order to be a full-time student or full-time homemaker, then they skipped Part B and were sent directly to Part C to rate the quality of their bachelor's degree program. As explained earlier in this chapter in the section on response rates, because respondents who answered question 15, that they were not working in education, were later removed from this research study, their answers do not appear in the descriptions below. The respondents who remained in the research sample for this study were specifically selected so that they would all be teachers or working in education. Respondents also remained in the sample if they chose the response "other" and then stated that they were doing a job closely related to teaching, such as a reading coach, tutor or substitute teacher over the summer while planning to teach full-time the following academic year. Specifically, over 85% of the respondents from each institution indicated that they were full-time teachers. The remaining 15% from each institution indicated that they were working in other education positions.

This concludes the discussion of the findings based on Part A, the background section of the survey. In summary, the key finding from this section is that most background characteristics of the respondents from SPC and USF appeared to not be significantly different, except that SPC respondents were found to be significantly older than USF respondents and that SPC respondents were found to be significantly more satisfied with having enrolled in a teacher education program. The next section of this

chapter focuses on the respondents working in education and their descriptions of their current positions.

Positions in Education

Part B of the survey questionnaire targeted those respondents who were working in education. Question 16 asked specifically which type of position in education these graduates held. Like question 15, the responses to question 16 indicated that close to 85% of respondents from both SPC and USF were working as full-time teachers. There were no school administrators in this sample, but there were a couple of: permanent substitute teachers from SPC, part-time teachers from USF, and educational specialists and day-to-day substitute teachers from both SPC and USF.

The next survey question, number 17, asked at which grade level the respondents were teaching. Over half of the respondents from both institutions were teaching the elementary grades. Specifically, 37% of SPC respondents and 33% of the USF respondents were teaching early elementary (grades K-3), and 25% of SPC respondents and 21% of USF respondents were teaching upper elementary grades (4-6). (For additional detailed frequency data, please see Appendix G.)

The responses to the question “About what percentage of your present teaching is in the grade(s) or subject area(s) in which you were certified?” are found in Appendix G. It is important to note that over 85% of the respondents from both institutions answered that they were working 100% in the area in which they were certified, and the proportion of graduates from either institution who stated that they were only teaching 50% or 25% in their field of certification was under 5%, as was the proportion of graduates from both schools who answered this question with “other” (rather than a percentage).

Next, in survey question 19, graduates were asked to describe the type of school in which they taught as either public, parochial or private. Over 90% of respondents from each institution claimed that they were working in public schools. When survey question 20 was asked about the urbanicity of the area in which they taught, the respondents from each institution came back with a similar distribution (for details, see Appendix G). The next survey question, number 21, also asked about the school where the respondents were working, and asked about the number of students enrolled at the school where they were teaching. The findings showed that the proportions of respondents in each category of school size by alma mater were similar.

The survey next asks, in question 22, how far the school where graduates worked was from where the respondents graduated from high school, and also how far their work was from the college where they studied teacher preparation (see Table 14). The largest proportions of respondents were found to be working within 50 miles of both (48% of SPC respondents and 40% of those from USF). The next most prevalent category (42% of SPC graduates and 32% of those from USF) stated that they were teaching within 50 miles of the college where they had studied teacher preparation, but that they were more than 50 miles from the high school where they had graduated. More of the USF respondents (19%) were found to be employed over 50 miles away from both their high school and college, as compared to the SPC respondents where only half of that percentage, 8%, had relocated to a new area. The final category for question 22 was for respondents who went to work in areas near their hometown high school; this captured the remaining 10% of USF graduates, but only 2% of SPC graduates. To determine whether there was a statistically significant difference between the respondents from SPC

and USF, a Chi-square test of goodness of fit was calculated. In fact, the difference between the two institutions was found to be statistically different, $p = 0.01$, indicating that the SPC respondents were far more place-bound on average than the USF respondents.

Table 14. *Comparison of Place-boundedness of Respondents from SPC vs. USF*

| Location | SPC | USF |
|---|-----|-----|
| <i>Is the school in which you teach located within 50 miles of...</i> | | |
| High school from which you graduated? | 2 | 9 |
| College from which you received your teacher preparation | 37 | 28 |
| Both of the above? | 42 | 35 |
| Neither of the above? | 7 | 17 |
| Total | 89 | 89 |

Summary Statistics $\chi^2 = 10.498$ $df = 3$ $p = 0.01$

The following question on the survey instrument, number 23, asked respondents to compare the socioeconomic backgrounds of the students whom they taught with the classmates that the respondents had back when they were in high school. The findings showed that over 50% of respondents from SPC and USF were teaching pupils with lower socioeconomic backgrounds than their former high school classmates. Respondents who ended up teaching in schools with pupils similar in socioeconomic backgrounds to their former high school classmates were found to be more common among USF respondents (40%) as compared to SPC respondents (31%). The balance of respondents, with a larger proportion from SPC (14%) than USF (9%), found that they were teaching in schools with pupils of higher socioeconomic background than their former high school classmates.

The following survey question asked about the percentage of pupils from minority backgrounds at the schools where respondents worked. The findings from both colleges on average were rather similar. There was also a related question asking respondents to compare the proportion of students of color in the schools where they worked to the high school from which the respondents had graduated. The average responses from both schools were similar with the largest proportion of respondents from both colleges (40% or more) stated that they were teaching in schools with a higher proportion of minority students than the high schools they had once attended.

The last two survey questions in Part B, the employment in education section, were not about respondents' work environment, but instead asked respondents about their careers as teachers. Question 26 asked respondents to rate themselves in general as teachers; while the detailed ratings appear in Appendix G, it is interesting to note that the ratings given by respondents from each school were again rather similar. In fact, the average means for both schools were very close to each other (4.07 for SPC and 3.96 for USF, where 4 equals better than average); there was clearly no statistically significant difference in the mean responses by college ($F = .019$ and $p = .892$).

The final question in Part B of the survey, question 27, asked teachers to give their career plans five years into the future. The vast majority of respondents from both colleges (over 70%) declared that they planned to remain teaching and about 15% of the others planned to remain working full-time in school by becoming school administrators or educational specialists. In summary, the only question in Part B of the survey, the Employment in Education section, that returned a statistically significant difference

between respondents from SPC and USF was question 22, indicating that the SPC respondents were found on average to be more place-bound than their USF counterparts.

Now that the findings of Part A and Part B of the survey have been discussed, Part C presents the preliminary answers to the research questions of this study regarding the quality of programs and teachers.

Quality of Programs

Although consensus has not been reached in the literature on how to define and operationalize teacher quality (Birkeland, 2005), the present study has attempted to explore the quality of teacher preparation programs from the perspective of recently trained teachers. Two main questions (numbers 28 and 29) in the survey examined in greater detail the quality of programs. Question 28 asked respondents to rate (on a Likert scale of five possible choices: poor, fair, average, good, and excellent) the overall quality of seven components of their baccalaureate in education program. The seven components that respondents rated included: the liberal arts/general education courses, courses in teacher preparation program, early (pre-student teaching) field-based experience, student teaching/internship experience, feedback from cooperating teachers/mentors, feedback from coordinators/supervisors, and advice/counseling from their academic advisor.

When first examining the crosstabs of rating by college for each of the seven components of question 28 (see Appendix H), it appears that there are two components in which SPC's means were significantly higher than USFs. Question 28.3 asked respondents to rate their "early (pre-student teaching) field-based experience." On this question, the responses from both institutions were overwhelmingly positive. On a scale of 1 (poor) to 5, with 4 being Good and 5 being Excellent, the mean for respondents of

both institutions combined was 4.21 (SD = .81, N = 179). However, when ratings were compared by college, SPC respondents were found to have rated their field-based experience (4.34) significantly higher than USF respondents (4.08) ($t = 2.16$, $df = 177$, $p = .032$). In addition, the last component, 28.7, which asked graduates to rate the advice/counseling from their academic advisor (or advisement), had a significant difference (in this case, $p = .007$) between the mean from SPC and USF. The mean for SPC respondents on advisement was 3.90 vs. the mean for USF respondents which was 3.06 (for this question, a rating of 4 equals good and a rating of 3 equals average). Therefore, the ratings for advisement were significantly higher at SPC than at USF.

It is important to note that the findings for this exploratory research study, when examining the responses to the 18 components of Question 29 on teaching competencies, did not return any statistically significant differences in results between the means of the two institutions, SPC and USF. The detailed frequency table appears in the Appendix H. In addition, the comparison table of the means and variations for that question may also be found in Appendix H.

Therefore, the researcher delved more deeply into the data, seeking additional statistical analyses that could be of interest to this study. To more closely examine the responses to Question 28, the seven components were broken down into three mini-scales of two and three questions each. The determination of which questions would be used for each of these mini-scales was based on the content of the questions prior to examination of the data (see Appendix C to refer back to the questions). The three mini-scales were: Courses (with 28.1 and 28.2), Experiences (with 28.3 and 28.4), and Mentoring (with 28.5, 28.6, and 28.7). Specifically, Table 15 shows means, standard deviations (SD), and

sample size (N) for each of these three mini-scales broken down by college. In addition, t-tests of significance between the college means are also provided.

Table 15. *Comparison of Mini-scale Means between Schools*

| Mini-Scale | College | Mean | SD | N | <i>t</i> | <i>df</i> | P |
|------------|---------|-------|------|----|----------|-----------|-----|
| Courses | SPC | 8.40 | 1.51 | 89 | 1.74 | 177 | .08 |
| | USF | 8.01 | 1.50 | 90 | | | |
| Experience | SPC | 8.66 | 1.45 | 89 | 0.72 | 177 | .48 |
| | USF | 8.50 | 1.58 | 90 | | | |
| Mentoring | SPC | 12.43 | 2.76 | 89 | 2.15 | 177 | .03 |
| | USF | 11.58 | 2.59 | 90 | | | |

As can be seen above, SPC ratings were significantly higher on Mentoring than those of USF ($p = .03$). As explained in Chapter III, the cut-off for statistical significance utilized for this study was p less than or equal to $.05$; therefore, the difference in mean scores on the mentoring mini-scale with $p = .03$ was statistically significant. In addition, the SPC respondents' ratings of Courses were higher than those from USF, enough that they approached significance ($p = .08$).

In summary, on the mini-scales factor analysis of question 28, SPC students rated their mentoring higher than USF students (12.43 vs. 11.58). A higher number meant that SPC graduate respondents had more positive ratings of the mentoring they received than did the USF graduates. In addition, the two components of Question 28 in which SPC respondents' means were significantly higher than those of the USF respondents were in their ratings of early field-based experience and the advice/counseling from their

academic advisors. Next is a presentation of findings for the final four questions of the survey, all of which had open-ended responses.

In the Graduates' Own Words

St. Petersburg College Alumni Responses Relevant to the Present Research Study

Because the final four questions, numbers 30-33, in the survey questionnaire were all open-ended, their responses returned descriptive data. These data required qualitative analysis to understand them in aggregate, by interpreting responses and categorizing them based on themes. After reading through all of the responses from both institutions, it was clear that the answers to question 30 (in which respondents described the biggest challenges they faced while enrolled in their baccalaureate program) and question 32 (which asked how their baccalaureate program could be improved) had responses too similar to analyze separately. In addition, the responses to question 33 (which asked if respondents had anything else they would like to share) often built on either the same theme as the respondent had started in questions 30 or 32 or the theme that had been started in 31. In addition, certain themes only presented themselves for students from one institution or the other because they were specific to a particular institution; for example, the intensive 2-day delivery format for full-time coursework offered by SPC or the infused ESOL that was built into the SPC curriculum for Elementary Education and Exceptional Student Education majors. Therefore, the analysis of the responses to these four questions was done in aggregate, but with comparisons made between the two colleges.

As explained in Miles and Huberman (1994, p. 58), the initial coding of this type of material should be based on the conceptual framework, research questions, hypotheses,

problem areas, and/or key variables that the researcher brings to the study. Therefore, the initial list of codes should not just look for the numerous themes and patterns that emerge from the responses in a vacuum, but the themes should be diligently focused on the context of the goals of this study. As stated at the beginning of this document, the purpose of this study was to examine graduates' academic experiences in teacher education programs at the first community college in Florida to offer its own baccalaureate degree and to compare them with the experiences of graduates of a nearby state university. Recognizing that it would be prudent to increase alumni satisfaction in order to reduce teacher attrition and local teacher shortages, the research questions asked "How do the teaching graduates from both institutions rate the quality of their programs?" and "How do the teaching graduates from both institutions rate their own teaching competencies?" Therefore, the analysis of SPC graduates' open-ended responses focused specifically on the following list of initial themes and codes: SPC graduates' academic experiences as unique from those of other institutions (coded as U for unique); issues of program quality (coded as Q for quality); mention of teaching competencies (coded as C for competencies); and satisfaction with program and career (coded as S for satisfaction). In addition, the comments that respondents provided that were recommendations for improvement were coded as R for recommendations, and compiled in their entirety for each institution separately so that, if desired, the administration may reflect on the areas where improvements could be made for future students. It is important to note that the statements that the respondents shared were often not coded in a mutually exclusive way, but rather that often satisfaction would be expressed about some unique aspect of the program and its high quality would be cited at the same time.

Therefore, the explanations below, rather than reiterating the same material, will mention themes that have not yet been described. In addition, although the coding was initially done with the five themes listed above, it was discovered that there were no mentions of teaching competencies in isolation from the other topics of interest to this study that were coded as listed above. For example, if a respondent mentioned that he or she felt well-prepared to teach, that statement was made in the context of having been in a high-quality program or one that the respondent recommended to others or that impressed the principals with whom the respondent interviewed for teaching jobs, etc.. Therefore, there was no separate paragraph of teaching competencies listed from the other four coded topics.

In terms of the unique aspects of SPC as the first community college in Florida to offer a baccalaureate in teacher education, many of the same themes came from those respondents. More than 1/3 of SPC respondents expressed that the small class sizes were helpful because students had more of an opportunity to easily access and build relationships with their instructors as mentors (whom respondents stated had real-world experience, were extremely knowledgeable, personable, and ready to help students). Other students explained that they faced individual insecurities that they were able to overcome in SPC's small classes, such as inferiority about being older than most college students because they already had families to support and were changing careers; because they had been out of school for a long time; and because they felt nervous about teaching in front of others. In addition, several SPC students explained that they valued being in learning communities at SPC where they went through all of their classes with the same group of students, thereby fostering more interaction among peers, a greater sense of

belonging, more support for each other as classmates, and lasting friendships that have endured beyond college to their now being contacts as working teachers in the field.

Other SPC graduates commended the flexibility of the unique delivery format, which allowed them to take a full-time load of college classes in just two intensive days per week (leaving them other days free for work and family responsibilities). They also appreciated the other course options available to them, which offered additional flexibility such as online and evening classes, summer sessions, and courses offered on a variety of different campuses. Several respondents expressed their pride in being graduates of a new program. To them, this was exciting because the program had smaller classes and passionate instructors fresh from the field and “excited to be in on the ground floor.” This dynamic was noted to have helped students and faculty form a tight-knit group. Several instructors and administrators were named as dedicated mentors with high academic expectations that prepared them for the challenging realities of teaching.

Some SPC respondents mentioned that their program was well-respected in the community, and that the staff at SPC was extremely professional. In fact, in a couple of cases, the principals with whom they now worked were noted to have mentioned favoring SPC graduates over those from other institutions because they tended to be better prepared for the classroom. Other SPC baccalaureate graduates stated that they believed their SPC baccalaureate was more intensive and challenging, and thus felt better prepared than their outside counterparts for teaching and further studies. Still other SPC respondents explained that they felt “more than” prepared to teach.

Other SPC graduates expressed appreciation for the unique design of the SPC program in that it required all Elementary Education majors and all Exceptional Student

Education majors to study ESOL, which was infused into their curriculum. They expressed gratitude that their degrees came with an endorsement in ESOL. Several respondents also mentioned that although the additional ESOL material was difficult for them as students, the teaching methods proved valuable to them later as working teachers. One graduate described the Elementary Education program with Infused ESOL as one of the best in the state.

When examining the open-ended responses for mention of issues of program quality that were not cited above, nearly 15 respondents indicated that their professors were also experienced teachers and provided “real-world” examples to make their teaching “honest” and “true to life.” Respondents also described their professors as “caring,” “dedicated,” “encouraging,” and “knowledgeable.” Because of the cohort format and small class size, the professors got to know their students and were found to be “approachable,” “supportive,” and full of both “passion” for teaching and “compassion”; thus, they were able to support their students through difficult assignments and personal struggles. Other respondents cited individual professors or departments that were especially helpful to them in providing outstanding mentorship and preparation for the field. In addition, several respondents cited the high quality of a particular internship placement, capstone project, class, apprenticeship or practicum as the most memorable part of their SPC program.

In terms of the satisfaction that SPC respondents had with their program, as expressed in their open-ended responses to questions 30-33, there were many positive reviews. In terms of themes that were not mentioned above, some respondents stated that if they were just starting out, they would take their baccalaureate in education from SPC

again. Several SPC graduates stated that they recommend their program to “everyone” interested in pursuing a baccalaureate in teaching. A few SPC graduates also stated that they wanted their own children, as well as their teaching peers, to have the opportunity to take classes at SPC, and that they wished SPC offered a master’s program. One graduate even said that eventually, she would like to work at SPC. Several SPC respondents expressed extreme gratitude to SPC for preparing them with “the best education and the best job” of their lives. Others described the fulfillment they found in their teaching careers as their “calling” and for preparing them so well for “the job that they now hold and love!”

Finally, when it came to recurrent issues that were mentioned by SPC graduates as recommendations for program improvements, some students asked for more course offerings in the summer; or more classroom, more observation or more pre-service experience; or more course offerings in a particular major such as secondary education; or to hone a particular general skill such as writing, reading or classroom and behavior management or at a particular campus location. Other students asked that communication be improved in the field practicum experience between supervisors and instructors.

In addition, some graduates asked if program coordinators and school district personnel could collaborate more so that students could learn more about district procedures in preparation for their employment. Other graduates asked for more administrative education or more distinct lesson planning similar to what is required in the field. Other SPC respondents asked if additional coursework could be available for those who desired more training after graduation in a competency they had not anticipated while enrolled or for needed endorsements. Several respondents also asked if

master's degrees could be offered through SPC. Some suggestions were made by SPC graduates for opportunities to observe experienced teachers in poorly-funded areas or "inner-city" schools, even if they did not end up teaching in one, to learn more skills and realities of the field than are taught in college classrooms. Another graduate suggested providing "rap sessions" with teachers currently in the classroom to give students more realistic expectations about how difficult "the system" can make it to get services for students with learning disabilities. One respondent asked for more opportunities for students during internship to get together with fellow classmates to talk about their "adventures."

SPC graduates stated several other challenges that they had faced, but which were just "kinks" that needed to be worked out in a new program and had already been fixed by the administration: for example, when certain requirements of the program that were confusing went online and became more streamlined or when course offerings in certain majors and endorsements were slim because they were new. One student explained that "SPC does a really great job staying up on all of the newest research. They are always reflecting on themselves so as soon as you think that something might need improving, they have already changed it."

University of South Florida Alumni Responses Key to Present Study

To illuminate the educational experiences of graduates from Florida's first baccalaureate-granting community college, as described above, and to show how their experiences compared to graduates of a traditional state university, this section now presents the words shared by the USF survey respondents. The first theme explored with SPC graduates was what was unique about their academic experiences from those of

other institutions (coded as U for unique). To summarize, the characteristics of the SPC program that were found to be unique included: small class sizes; the learning community format where students remained with the same cohort of students and professors throughout their programs; the delivery format with a full-time load of courses available in two intensive days per week; flexible options to take courses on other campuses, online or in evenings and summer sessions; the excitement of the newness of SPC's program; passionate professors with real-world experience; positive regard of SPC's program from principals; and the benefits of ESOL infused into the curriculum.

In terms of the words of the USF respondents with similar responses to those from SPC, several USF graduates also mentioned small class sizes as a benefit to their program. A few of the USF respondents had the opportunity to participate in small group programs such as SCATT (SunCoast Area Teacher Training) Honors Program which offered a plethora of workshops providing hands-on experience for real-world skills, and the Apple laptop cohort which immersed technology into the lesson plans. Those USF graduates were very positive about their experiences, as were several of the graduates of USF's smaller St. Petersburg campus, which felt to them like a learning community of supportive peers. It is important to note that some of the USF graduates who were not in cohort programs or on the small campus in St. Petersburg clearly expressed their recommendation of "class size reduction."

However, many of the USF graduates described problems that they faced which were different from the SPC graduates' concerns, and these are described below in the voices of USF respondents to help illuminate the recurrent weaknesses that arose in the program that could be utilized to improve the program in the future. A recurrent theme of

USF graduates was the difficulty they faced scheduling classes, particularly for those students working full-time. As a graduate with a typical concern of this nature explained, “[s]ometimes the classes that I needed to take were not offered during that semester, or they were offered at times that were inconvenient for me. I wish they would offer more night classes for those of us who have to work their way through college.” Other USF graduates were challenged by what were seen as unreasonably heavy credit loads during certain semesters, or by being overloaded with extensive reading assignments, written work or group projects. A graduate explained, “I remember that there were semesters where the number of units were significantly higher than the average undergraduate requirements which meant juggling many homework assignments and tests.”

Two other common themes of concern for USF graduates, which did not come up for SPC graduates, included a frustration with the lack of real-world skills taught at USF. Some graduates also complained about a lack of professors with recent classroom teaching experience. A USF graduate’s common concern illustrating these two issues was stated as follows: “I did not feel that some of the professors in the college of education were experienced in the teaching field. They were mostly theoretical and book smart. They did not provide me with enough real-world applications while teaching us in the classroom.” Another USF graduate explained, “I was frustrated with the amount of theory being taught. Not a lot of practical information that I felt prepared me for what I experienced my first year. I wanted more tools for my tool-kit.” A USF graduate from the main campus in Tampa stated that most of her courses were “taught by grad students.”

Another common concern of USF graduates that did not come up for SPC graduates was frustration with a lack of personal guidance and inconsistent advisement

related to choosing classes, selecting a degree program, and graduation requirements. One graduate explained that she felt that “the administration was not always on the same page. If I asked three different people one question, I would receive three different answers.” Another USF graduate stated, “I would hear that I needed to take this class or this test when it was not true.” One more explained, “[t]he requirements seemed to always be shifting.” One graduate exclaimed about the advisement at USF, “[m]any of the members of the staff were rude when working with students. When I'm paying money for a service, I expect to be treated with more respect and dignity than what I received.”

A final concern of USF graduates that did not come up for SPC respondents was a frustration with the lack of assistance with preparing for a job search, such as resume, cover letter, and portfolio preparation, as well as “counseling in interviewing skills.” In addition, one USF graduate stated that “[t]he program did not provide enough support for students who needed help with subject area exams and or any other test passing requirements to obtain your teaching certificate and your degree.”

When the recurrent themes for SPC respondents were presented, both the positive (characterized as unique to SPC, related to the quality of the programs and to alumni satisfaction) and the negative comments (characterized as recommendations) were discussed. The USF respondents' negative concerns and recommendations were thoroughly presented in the context of comparing them to the positive and negative comments from SPC graduates as they related to the SPC responses coded as unique to the SPC program. However, the positive recurring themes that came up from USF graduates unrelated to those found at SPC remain to be described, particularly as they relate to the other two positive themes found by SPC graduates of alumni satisfaction and

program quality. These are presented jointly below because many of them were not exclusively related to either only alumni satisfaction or only program quality. These positive comments came up in the USF responses to question 31, which asked what they liked most about their program, and occasionally in response to question 33, which asked “[i]s there anything else that you would like to share about your experience in your Baccalaureate in Education program?” In particular, several USF graduates felt “well prepared to teach in Florida” when they graduated and “more prepared than other first-year teachers.” Others felt that “[t]he teachers and counselors were always there to help or advise. They wanted the students to succeed.” Several USF graduates named individual professors or departments as very knowledgeable and supportive.

Nearly 1/3 of USF graduates liked their three levels of internships and their other “hands-on” and “in the classroom” experiences. Some were proud of USF's reputation as “one of the top programs in the USA” and its position “on the leading edge for best research based teaching strategies.” Another USF graduate commented that she appreciated being able to “come right out of graduation and apply for my Teaching Certificate.” She explained that “[m]ost schools provide you with methods classes, but then you still have to take other courses (i.e. ESOL) and the certification exams after graduating.... At USF I was able to immediately start looking for a job since all of those requirements needed to be met in order to graduate from the program.” This was actually required by the Florida Department of Education for all of Florida’s teacher education baccalaureate programs. In fact, all graduates must pass the exams before they are allowed to graduate. It is worth noting that this differs from other states’ bachelor’s degree requirements in teacher education and is done at both SPC and USF as Florida

DOE-approved programs. In addition, many USF respondents provided more general positive comments about their academic experiences, such as “it was a great experience overall.” Some added that they “made a lot of friends” and “loved the Ed program at USF!!” See Table 16 for examples of quotes of the descriptive data from questions 30-33, categorized by the themes outlined above that are related to the goals of this research study.

Summary

In this chapter, a thorough description of the findings from the survey research of this study has been presented. The report of the findings started with a quantitative analysis of all of the demographic questions, moved to a report of all of the quantitative questions about teachers’ employment in education, and concluded with graduates’ detailed quantitative ratings of both the program that they attended and their own teaching competencies. The six main quantitative findings were as follows. First, SPC respondents were significantly older and more place-bound ($p = 0.01$) than USF respondents. They were also significantly more satisfied with their decision to enroll in teacher education than USF respondents ($p = .004$). In addition, SPC respondents rated the quality of their early (pre-student teaching) field-based experience significantly higher ($p = .032$) than did USF respondents. Finally, SPC respondents rated the quality of the advice/counseling they received from their academic advisor significantly higher than USF respondents ($p = .007$). Furthermore, the mentoring mini-scale created for factor analysis was rated significantly higher by SPC respondents than by USF respondents ($p = .03$). In addition, the descriptive data as articulated by SPC graduates in their own words were coded based on themes relevant to this study and thoroughly presented. Finally, the

USF respondents voices were interpreted and categorized to help illuminate the difference $9P = .0001$) and similarities between the academic experiences of graduates from the two institutions and to highlight the strengths and weaknesses of each program.

Table 16. *Descriptive Data from Questions 30-33 Categorized by the Themes of This Study*

| Theme | SPC | USF |
|--------------------------------|---|---|
| Unique from other institutions | <p>“The small class size was great and I liked the learning communities.”</p> <p>“The two day schedule is very accommodating.”</p> <p>“I very much enjoyed the ease of scheduling. We did little to none of our own class scheduling as full-time students and were able to 'migrate' throughout the day with the same group of peers. It gave us the opportunity to grow with each other and truly develop friendships which we still hold today.”</p> <p>“Convenience of location and hours.” “I realize now how lucky I was to be in an ESOL infused program. I did not know how much I would use it down the line.”</p> <p>“The professors were all excited to be in on the ground floor and this reached outward to the students.”</p> | <p>“I liked being placed in a cohort and being able to learn from my peers and work together as a group. I also liked getting an apple computer and integrating it into our lesson plans.”</p> <p>“We learned to immerse technology into teaching. The experience undoubtedly provided me with a skill set that is uniquely demanded in the field.”</p> <p>“I feel that the program fully prepared me for a career in teaching. I was also a part of the SCATT (SunCoast Area Teacher Training) honors program and that gave me an edge over other students....”</p> <p>“Require everyone to be part of the SCATT program. Seriously,...I would not be... surprised if there is a much higher teacher retention rate among instructors who completed...USF SCATT....”</p> |

Table 16 (continued)

| Theme | SPC | USF |
|-----------------|--|---|
| Program Quality | <p data-bbox="618 415 980 674">“The teachers were well versed and educated. For the most part, they were honest, experienced and made sure we knew the text book information as well as the realities of education.”</p> <p data-bbox="618 709 980 890">“The professors were so encouraging, knowledgeable and understanding. They really ensured student success.”</p> <p data-bbox="618 926 980 1228">“SPC does a great job of staying up on all of the newest research. They are always reflecting on themselves so as soon as you think that something might need improving they have already changed it.”</p> | <p data-bbox="1011 415 1380 632">“I liked that the program was on the leading edge for best research based teaching strategies and that they presented them to students at all times.”</p> <p data-bbox="1011 667 1380 968">“My field experiences at USF were amazing and probably the most valuable aspect of my education. I can honestly say that I came out knowing a lot about what my first year of teaching on my own would be like.”</p> <p data-bbox="1011 1003 1380 1228">“I appreciated the intensity of the program because I understood that I would be prepared to enter the classroom as the teacher when I completed my program.”</p> |

Table 16 (continued)

| Theme | SPC | USF |
|--------------|--|---|
| Satisfaction | <p>“I have recommended this program to friends who are now enrolled. My experience was wonderful. It did not seem so difficult because I was learning about something that I love. Teaching! I have not regretted my choice to become an educator.”</p> <p>“ESOL-infused program... opened my eyes to many different teaching methods that I use with all students.”</p> <p>“The college... will always be close to my heart.”</p> | <p>“Overall, USF was a wonderful school and provided a great university experience.... Also, I point out that I received my AA degree from St. Petersburg College, another wonderful school.... I was rarely disappointed by the quality of education.... I feel both schools employ many caring professors that are willing to go above and beyond for their pupils. Great job to both!”</p> <p>“Very glad to have taken care of my ESOL prior to graduating!”</p> |

Table 16 (continued)

| Theme | SPC | USF |
|-----------------------|---|--|
| Real-world Experience | <p>“I feel like several methods that you read about are not useful for a real life classroom. Some of the methods may work in a classroom where everyone is an over achiever but in a classroom...where...students are worried about how they are going to get their next meal or where they are going to be sleeping... nothing can really prepare you for that....”</p> <p>“I would have liked to have had more chances to observe experienced teachers while they were faced with real time situations. Perhaps requiring people to observe in low economy areas.”</p> | <p>“I did not feel that some of the professors in the college of education were experienced in the teaching field. They were mostly theoretical and book smart. They did not provide me with enough real world applications while teaching us in the classroom. For example, the professors did not teach me how to do good lesson plans and what their purposes are for.”</p> <p>“(T)he college does not prepare teachers for all of the paperwork involved....While I know there is not a class... ‘Paperwork 101’ I would have liked...more exposure to the forms I was to fill out.”</p> |

Table 16 (continued)

| Theme | SPC | USF |
|------------|--|--|
| Advisement | <p data-bbox="618 411 984 632">“The biggest problem I faced while enrolled in this bachelor's degree program was the negative support that I received from my academic advisor.”</p> <p data-bbox="618 680 846 711">“Horrible advisor.”</p> <p data-bbox="618 760 943 900">“It was a new program so sometimes there was a discrepancy in expectations and workload.”</p> <p data-bbox="618 949 959 1016">“Total lack of job placement assistance.”</p> | <p data-bbox="1008 411 1373 596">“The college did not offer personal guidance and/or encouragement in the area of choosing classes and degree program.”</p> <p data-bbox="1008 644 1373 747">“I would hear that I needed to take this class or this test when it was not true.”</p> <p data-bbox="1008 795 1357 863">“The requirements seemed to always be shifting.”</p> <p data-bbox="1008 911 1373 982">“I have had no assistance since graduation in finding a job.”</p> |

Chapter V next presents an interpretation of what these findings mean, what kinds of conclusions can be made based on these findings, and how these results relate to theory and existing research. In addition, recommendations are offered for ways to improve this study and for related future research.

Chapter V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to examine graduates' academic experiences in teacher education baccalaureate programs at the first community college in Florida to offer its own baccalaureate degree, St. Petersburg College (SPC). The primary research question that guided this exploratory study is: How does the perceived quality of teacher preparation baccalaureate programs at one community college compare with that at a nearby university? Are there differences in the ratings given by community college baccalaureate and university graduates who were found to be teaching of their abilities and preparation? The two specific questions drawn from this main question are:

1. How do the teaching graduates from both institutions rate the quality of their programs?
2. How do the teaching graduates from both institutions rate their teaching competencies?

A survey was conducted of the teacher education baccalaureate graduates from the first five years (2004-08) of SPC's programs, along with the teacher education baccalaureate graduates from 2004-08 of the nearest state university program, University of South Florida (USF). The survey started by asking graduates descriptive questions about their coursework, backgrounds, and current teaching positions. The salient questions for this study asked graduates of both institutions to rate the overall quality of

various aspects of their academic programs and to rate a variety of their own competencies as teachers. With 89 survey respondents from SPC and 90 survey respondents from USF, three of the survey questions related to the research questions of this study returned statistically significant findings. In addition, after running factor analysis, one of the factors returned statistically significant results and one other produced results that approached statistical significance. This chapter begins with a summary of the pertinent findings of the present study, followed by an interpretation of the findings with linkages made to the literature. A critique of the study is offered, including several ideas that could be utilized to improve the present study. In addition, several recommendations are presented for future research to build on this study and to more deeply examine the effectiveness of the community college baccalaureate model.

Summary of Findings

The four main quantitative findings were as follows. First, SPC respondents were significantly more satisfied with their decision to enroll in teacher education than USF respondents ($p = .004$). Second, SPC respondents rated the quality of their early (pre-student teaching) field-based experience significantly higher ($p = .032$) than did USF respondents. Third, SPC respondents rated the quality of the advice/counseling they received from their academic advisor significantly higher than USF respondents ($p = .007$). Finally, the mentoring mini-scale created for factor analysis was rated significantly higher by SPC respondents than by USF respondents ($p = .03$).

Interpretation of Findings

With the statistical analysis complete, it is possible now to consider how the findings of the present study can be explained in relation to the existing literature and empirical studies. It is also important to consider the accountability of the policy changes that enabled the vertical extension of the community college, particularly to determine if they may have reduced some of the main problems that were cited in the legislation that created them, namely local teacher shortages and limited baccalaureate access.

Interestingly, the overall responses to the two main quality questions of the survey (questions 28 and 29) from both institutions were overwhelmingly positive. These results indicate that at least from the graduates' perspectives, they are quite pleased with the quality of their programs and the professional skills that they bring to the teaching force. In addition, nearly 90% of the respondents mentioned that in five years, they still planned to be working full-time in education. The literature on teacher shortages indicates that only 60% of teacher education graduates actually end up going directly into teaching positions (Coulter & Vandal, 2007); about a third of the newly-hired teachers leave during their first three years; and only about half remain in teaching after the first five years (National Commission on Teaching and America's Future [NCTAF], 2003). Therefore, the high ratings of the quality of the SPC teacher education programs and the high levels of satisfaction with the teaching careers of the SPC graduates of the present study do appear likely to help reduce the local teacher shortage by reducing the attrition rate. As Mihans (2005) explained, past studies cite two main reasons for high teacher attrition early in graduates' teaching careers. The first is a perceived lack of quality teacher preparation (Mihans, 2005, from Darling-Hammond, Chung, & Frelow, 2002;

Darling-Hammond & Sclan, 1996; Stempien & Loeb, 2002; Wrobel, 1993). The second is dissatisfaction once they are teaching (Mihans, 2005, in Betancourt-Smith, Inman, & Marlow, 1994; Gritz & Theobald, 1996; Williams, 2003). Therefore, it is important to note that SPC respondents who were teaching rated their career choices (question 13) significantly higher than USF respondents did ($p = .04$).

Another way to consider the impact of the vertical extension of the community college on teacher shortages is to mention that in Florida, it was discovered that in the areas of secondary math and secondary science, the shortage of highly-qualified teachers was so great that more than 10% of current teachers and more than 10% of new hires were teaching without certification in the appropriate subject area (FLBOE, 2005, Tables 4 and 5). However, the findings from the present study indicate that over 85% of respondents from both institutions claimed that the full 100% of their present teaching job was in the grade(s) or subject area(s) in which they were certified. (Over 95% of respondents from the present study indicated that their present teaching assignments were 50% or more in the subject areas in which they were certified.)

It is interesting to note that despite the fears of the critics of the community college baccalaureate movement, no cases were found where overall ratings by USF respondents were significantly higher than rating given by SPC respondents. This means that at least from the perspective of the graduates from the first five years of SPC's teacher education baccalaureate programs, on average the graduates did not indicate that their academic experiences were in any way significantly inferior to how the USF respondents felt. Findings from the present study were clearly in support of the arguments made in favor of the community college baccalaureate model in the literature, such as

SPC respondents' praise of more real-world examples from faculty (Romesburg, 1999). Furthermore, these findings refute the specific arguments made against the community college baccalaureate model such as the fear of educational inflation producing "second-class" baccalaureates (Wattenbarger, 2000).

In fact, SPC respondents actually felt more positive about some of the different aspects of their education programs than did their USF counterparts. In particular, the respondents of this study rated the advisement and mentoring that they received as significantly more positive than the USF graduates. Although this study did not include the voices of students who dropped out of education programs, this finding is markedly different than some of the criticism made about community college counselors in the 1970s and 1980s who were accused of "cooling-out" (Brint & Karabel, 1989; Zwerling, 1976) the aspirations of their students by advising them that they were not capable of one day earning baccalaureate degrees and should choose more manual or vocational trades rather than academic pursuits. In fact, the findings of the present study sound similar to the research conducted by Grubb and Worthen (1999) in their book, *Honored but Invisible: An Inside Look at Teaching in Community Colleges*. The authors explained that teaching is the primary focus of the community college, rather than research obligations which can distract faculty at universities from improving their instruction. In addition, the baccalaureate respondents from the community college appear to have a higher percentage of doctoral-level aspirants than the university baccalaureate respondents.

It is also noteworthy that not one of the 18 different items of question 29 returned findings that were significantly different between the two institutions. This means that the respondents from both institutions rated a wide variety of their teaching competencies on

average as similar. Therefore, arguments in the literature about the benefits or detriments of state universities, such as employing professors who are required to conduct research, do not appear from the respondents of this preliminary exploratory study to either promote or detract from the quality of programs. This is a very interesting finding that asks future researchers to now consider what variables are responsible for producing higher-quality professional skills in teachers. It also shows that vertically-expanded community college-based teacher education programs might be the “great equalizer” (Bowles & Gintis, 1976; Mann, 1891, p. 251) of social, educational, and economic opportunity, particularly in impoverished areas where diverse baccalaureate aspirants may obtain greater access to baccalaureate degrees because, when more academically diverse or non-traditional students enter, they appear to come out with not significantly dissimilar professional skill levels to their state university counterparts.

The respondents in the present study from SPC praised the learning community model as a way to foster peer support, long-term friendships, and close communication with instructors. SPC’s learning community of full-time teacher education baccalaureate students who take all of their classes together in two intensive days per week is what Grubb and Worthen (1999) refer to as the type of learning community “developed to meet the needs of particular groups of students, particularly non-traditional students” such as “older employed students, with schedules and subjects designed to meet their needs” (p. 262). It is important to mention that from the limited data collected on graduates’ age, it appears that the age of SPC respondents was significantly older than USF students. Furthermore, several SPC respondents noted that they liked the smaller class sizes (also found in Grubb & Worthen’s [1999] research study of community

colleges), and some SPC graduates mentioned that they appreciated the ease with which they could approach their professors for help with questions and guidance on professional as well as personal matters, both while enrolled at SPC and even after graduation as working teachers.

Literature on community colleges (Grubb & Worthen, 1999; Levin, 2001) indicates that their delivery formats are often found to be better at accommodating older and working students with greater flexibility in terms of online course offerings, evening classes, and other innovative instructional formats. The findings of the present study did indicate that the SPC respondents were significantly older than the USF respondents and that 10% of SPC graduates were pleased with the flexibility of course offerings and the 2-day a week intensive format, and the opportunity to take classes on different campuses and also in the evening. In addition, the percentage of SPC respondents indicating that they had taken more than nine online classes was 9%, whereas only 3% of USF graduates had used distance learning so heavily.

It is noteworthy that for question 28, having a 7-item scale with a total reliability (Cronbach alpha statistic) of .829 is extraordinary. This means that subjects responded quite consistently across questions for those scales. It also means that if just one item had been deleted from that 7-item scale, reliability would go down because every question was pulling something unique and no variance was wasted on extra questions. Alternatively, it might be an indication that the respondents were suffering from survey fatigue and were just checking the same response for every question. These questions, borrowed with permission for use in the survey instrument of the present study, as explained in Chapter III, were carefully developed as part of the National Survey of

Teacher Education Programs, and tested by several institutions led by a team of statistical researchers from Ohio State University.

It is also important to consider the findings of this study in relation to the literature on access. One of the concerns about limited access in the literature for community college baccalaureate degree students is that they are often place-bound due to where they own homes, where they or their other family members work, attend school, and so on. Boyd, Lankford, and Wyckoff (2005; Locklear, 2007) found that over 60% of teachers accepted their first teaching jobs in schools within 15 miles of their hometown or the town in which they completed college. The literature also suggests that “homegrown” community college baccalaureate degree recipients are more likely to remain in their communities after graduation and thus are likely to help reduce local teacher shortages (Shkodriani, 2004). It is noteworthy that 92% of SPC graduates indicated that they were teaching within 50 miles of the high school from which they graduated or the college where they received their teacher preparation, whereas less than 70% of USF respondents were found to be similarly place-bound or teaching within 50 miles of the high school from which they graduated or the college where they received their preparation. There was a statistically significant difference between the respondents from SPC and USF ($p = 0.01$) indicating that in fact SPC respondents were far more place-bound than their USF counterparts.

Question 4 of the present survey instrument asked respondents if they had applied to other teacher education baccalaureate programs. Over 90% of respondents indicated that they had not. However, it is unclear why they chose the programs at their alma maters and if that institution had not been available, whether they could have or would

have applied for and completed a baccalaureate in teacher education elsewhere. Unfortunately, the survey instrument utilized for the present study did not ask enough questions about students' academic and economic backgrounds or about their responsibilities beyond schoolwork. The present survey also did not ask enough questions about the other options that they considered instead of pursuing a community college baccalaureate degree. Manias's (2007) dissertation asked more specific questions about educational alternatives and his results suggested that the baccalaureate-level teacher education programs at community colleges in Florida are increasing access to the baccalaureate of education.

It is also interesting to consider how the current study builds on the existing empirical research on community college baccalaureate degree programs. Since 2001, 10 dissertations have been published related to the vertical expansion of the community college. A few of these studies examined the factors that created the policies empowering the vertical expansion of the community college, such as McKee's (2001), Burrows's (2002), Petry's (2005), and Pershin's (2006) dissertations. A couple of studies also focused on the possible changes in the mission of the community college that may have occurred with that vertical expansion, particularly the dissertation research studies written by Rice (2007) and Plecha (2007).

Some of the more recent studies have looked at how the recent vertical extension of the community college has impacted a particular group of stakeholders, such as Ross's (2007) study on changing faculty support needs. Bommel's (2008) cost-analysis study considered the financial cost to various stakeholders, such as policy decision-makers and taxpayers, but also openly considered the students' perspective in terms of the impact of

the new baccalaureate delivery venue on their tuition charges. Manias's (2007) dissertation also considered the impact of the vertical extension of the community college on its students. He surveyed 140 juniors and seniors enrolled in three of Florida's community college baccalaureate programs to evaluate whether these new programs were actually increasing access to baccalaureate education as the goal set forth in the legislation that created them. The present study also considers the impact of the new vertical extension of the community college on students, albeit after graduation, by reviewing graduates' opinions of their program quality and of their own professional competencies.

It is also interesting to note how the results of the present study relate to the research on the quality of teacher education programs and perceived competencies. Mihans (2005) in his dissertation noted that those who remained in the teaching profession rated their clinical experiences and supervision higher. The theory is based on the common sense that students who have field experience know more about what to expect in their first years of teaching and "are better prepared to deal with the complex realities of today's schools, classrooms, and students" (Huling, 1998, p. 4). If the results of Mihans's study are generalizable to other populations, and in particular to the population of the present study, then perhaps the SPC graduates will be found to remain in the teaching profession longer than their USF counterparts because they rated their field experiences and advisement significantly higher and were therefore better prepared to adjust to teaching careers. In addition, because over 90% of the SPC respondents indicated that they were teaching within 50 miles of the high school from which they graduated or the college where they received their teacher preparation (SPC), they are

more likely to have a long-standing commitment to the school and community where they are now employed.

Critique of the Study

In hindsight, this study has several weaknesses that could be improved upon. In terms of the survey instrument, a couple of problems were not apparent until after the surveys were disseminated. Question 11 asked respondents, "...[w]hich of the following statements best describes why you are not in a full-time teaching position at the present time?" The question was followed by 7 possible statements as well as the option to select "other" and then to specify the reason why they were not presently teaching. There were two problems with utilizing this question. First, after the survey was disseminated and responses were collected, the researcher then decided to include only working teachers in the sample, so this question and all seven of the statements did not apply to the respondents in her sample. In addition, respondents tended to write in that actually they were teaching full-time or other responses that the researcher later had to sort and code (such as long-term or permanent subs, which were both coded as teaching full-time and occasional, or day-to-day substitutes, which were coded as not teaching full-time and removed from the sample).

Furthermore, because question 15 also asked about current employment status and offered the option of classroom teacher as well as other education positions, non-teaching employment, choices for non-working graduates, and even an option to specify other employment status, it sufficiently and more accurately covered the employment question that was awkwardly posed in question 11. Moreover, question 16 also allowed respondents to provide more specific information about their current positions in

education. In addition, because all of the respondents who remained in the sample were employed in education, it was not necessary to have the online survey programmed, or the paper version designed, to skip Section B (the Employment in Education section) for any respondents who were not employed in education.

This study could also be criticized for not examining the academic experiences of students who dropped out of the programs without graduating, and also of graduates who were not currently teaching, to see if perhaps their experiences differed from the employed graduates' experiences. In particular, those students who were excluded from the study may have provided more negative feedback and ratings of their program quality as well as their own teaching competencies; they also may have offered useful suggestions on ways to improve the programs and on the challenges faced by students; or maybe they could have added new information to the question about the effectiveness of their programs. In addition, the apparent benefit or cost of the different baccalaureate education models only is being considered in this study for those who graduated rather than including all of the students who may have entered the program but not graduated. It is possible that the experiences of some of the students who entered both USF's and SPC's programs, but have taken a longer time to complete the program, may also have been accidentally excluded from this study because, although they may eventually graduate, they had not done so quickly enough to be included in this study.

Another question that did not return neat responses was question 1, which asked graduates to state the month and year in which they graduated. In fact, several graduates named months when there were no official graduation ceremonies. Perhaps this was because they noted the month in which they completed their final state certification

exams to become licensed teachers, or perhaps over time some graduates forgot whether their graduation ceremony was in May or June. The researcher chose to simply utilize the year that respondents noted as their class year when they completed the optional iPod raffle forms at the end of the survey, in question 36, in order to utilize more consistent data. There were also inconsistencies in the institutional data from SPC and USF, where the first available SPC data, from the *Factbook*, was based on academic years, whereas USF data, in the case of the mailing labels which were prepared by USF for their initial hard-copy mailing of survey invitations, were targeted based on the calendar year, not the academic year, of graduation. Another survey question that did not provide concise data was the question on age, which asked respondents to state their age when completing this survey rather than reporting their age at matriculation and/or at the time of their baccalaureate graduation, which would have been easier to compare to national or regional data.

Other limitations of the instrument included that it did not gather more information about the academic and socio-economic backgrounds of the community college baccalaureate respondents. Questions more clearly related to access could have been about household income, employment status while enrolled in baccalaureate programs, number of dependents, marital status, language spoken at home, country of origin, years since high school graduation, high school GPA, first-generation college attendance, information about any post-secondary educational experience and college preparation, test scores such as the CLAST or others, and if they required any remedial courses.

In terms of the dissemination of the survey, as explained earlier, it was rather difficult to locate a sufficient number of graduates from SPC. The way that this study was originally approved for dissemination by SPC was limited to merely posting a link to a seldom-visited and private website available only to alumni. It would have been prudent for the researcher to have asked for data up-front on the frequency of visitors to that site and also on the number of individual alumni who visit that website. The researcher did ask SPC's research committee what she should do if an insufficient number of respondents were obtained through that venue, but had not received a better or concrete alternative (from either SPC nor another community college conferring its own baccalaureate degree); thus, she posted her survey link and tried this approach. It was only after she was not successful at attracting a sufficient number of respondents via the alumni website that she again asked permission to try several other venues that she selected (including the Pinellas County School Board and Facebook.com) to locate more respondents. As explained earlier, by trial and error and the process of elimination, the researcher finally figured out how she could start to locate more alumni respondents without violating privacy policies that prevent colleges from releasing student and alumni contact information, which appeared to include both mailing addresses and e-mail addresses. The researcher determined that she might be able to obtain graduation programs as they were released to the public every year at graduation and likely listed the graduates by name, major, and date of graduation. With that information, she combed Facebook.com for potential matches, to whom she e-mailed survey invitations and Whitepages.com for potential matches and sent hard copies of her surveys via regular mail.

In addition, the researcher wrote to some SPC alumni asking for them to invite their fellow SPC classmates to participate in the research study. Snowballing by asking participants to invite their friends may not have been as successful as a random sample in attracting the widest diversity of respondents and their opinions as it is possible that more outgoing graduates who kept in touch with several classmates had more positive experiences than others who did not. This study could also be criticized for not actually physically going into the field to recruit more respondents. All of the survey requests were made by e-mail or regular mail, and higher response rates might have been returned if the researcher had visited the schools employing larger numbers of graduates from the two institutions being studied. The researcher did write individually to a few specific SPC graduates who seemed well-connected via Facebook.com to their alma maters and classmates in order to ask for specific help from them in attracting more respondents. This may have led to some potential selection bias where the most positive graduates maintain the most contact with fellow graduates who also are very positive about their academic experiences, career choices, and competencies. Additional iPod raffle entries for alumni who helped to recruit more respondents were offered in appreciation for their assistance with the data collection, and using an incentive like this may have attracted a particular type of graduate who is more technology-oriented and perhaps had more positive experiences than graduates with more old-fashioned aptitudes and interests.

Another concern about the significantly positive responses which were obtained from the SPC respondents may be due to the phenomenon (the so-called Hawthorne effect) that new programs tend to have good initial results, or in this study positive ratings, which may diminish over the years as the novelty of SPC's teacher education

baccalaureate program wears off (Baldwin, personal conversation, 2010; Light, Singer, & Willett, 1990). Data on the academic experiences of SPC respondents were only collected for the graduates of the first five years that SPC offered the teacher education baccalaureate. Perhaps if this research were continued over time, a gradual diminution of benefits would be discovered. This exploratory research examined the program for a relatively short period of time, considering that SPC only began conferring teacher education baccalaureate degrees in May of 2004. The short-term impact of the community college-based teacher education baccalaureate program examined at SPC may be insufficient for demonstrating the long run effectiveness of the program.

The data collection for the present study was not only a very time-consuming process; it was also very expensive. A professional level subscription of Survey Monkey, along with several printings of a lengthy survey and postage both to and from each respondent, added up to a large expense. Another major criticism of this study, and large expense, is that in order to attract a sufficient number of respondents, the researcher had started by offering an iPod raffle with relatively low odds, of 1 winner out of every 100 respondents, which was increased to 1 out of 50 to attract more respondents. Finally, in a desperate attempt to attract more respondents, after obtaining less than 50 from each institution, the researcher felt that increasing the odds to 1 in 20 was necessary. Purchasing enough iPods to reward close to 200 survey respondents at those odds was an unexpected and expensive undertaking.

In terms of the location and scope of the study, the researcher had initially spoken with administrators at a few different community colleges offering baccalaureate degrees in Florida, but was only able to get permission to conduct her dissertation research from

SPC (and as explained earlier, it was difficult to obtain graduates' names, and so the researcher searched on her own to obtain their contact information). It would have increased the breadth of the research population if the present study could have compared survey results from graduates from two or even three different community college baccalaureate programs, along with each of their nearest state universities. The present study would also have offered more generalizable results if it had surveyed teacher education baccalaureate graduates in other states and in additional major fields beyond teacher education.

Implications of the Study

The debate at the start of the vertical expansion of the community college focused on whether or not it should be attempted. Now that Florida has created opportunities for all of its community colleges to apply for permission to grant baccalaureate degrees and to become state colleges, the focus of the debate has changed. Now it is about whether these new baccalaureate institutions offer cost-effective baccalaureates, what is the quality of these new baccalaureate programs, and what are the competencies of the baccalaureate degree holders, and so on. The results of this study clearly are still relevant to the current debate. The findings of the present study actually help to support the recent legislation that promotes further vertical expansion of all of Florida's community colleges. This is because the present study found that baccalaureate degree respondents from a community college and a nearby university did not feel significantly different about their competencies in their careers. Discovering no statistically significant differences in this exploratory study, in terms of the average level of teaching competencies from the SPC and USF models, is an interesting finding. This may not be a

big surprise considering that the teacher preparation baccalaureate degrees offered by the two different venues may actually resemble each other because both must follow the same regional accreditation and state guidelines, and both prepare graduates to pass the same licensing exams. In conversation with an administrator at SPC, the researcher was told that SPC does not refer to their teacher education baccalaureate programs as “community college-based”; instead, SPC calls them teacher education baccalaureate programs period (Burniston, personal e-mail 2008). In addition, the community college respondents were significantly more satisfied about having chosen to pursue a baccalaureate in teacher education. Furthermore, the SPC graduates who participated in the present study actually felt significantly more positive about various aspects of their academic programs, including their early field experiences, advisement, and mentoring. The SPC graduates also indicated that they were more place-bound than their USF counterparts and therefore more likely to have a long-standing commitment to the school and community where they are teaching. In addition, because the SPC respondents were found to be significantly older, and over 90% of respondents had not applied to other BD-granting institutions, it does seem like this CCB program may be increasing access to an otherwise untouched supply of potential baccalaureate degree earners and also adding to the pool of future teachers. This finding, similar to Bemmell (2008) and Manias (2007), suggests that SPC’s teacher education baccalaureate is increasing access to baccalaureate education.

Recommendations

For Practice at SPC

A wealth of information was offered by graduates on ways to improve the baccalaureate teacher education program that they attended. It is important to share this feedback so that programs can make the changes that they see fit and so that other programs and researchers can learn from the wisdom of the alumni experience.

Several suggestions were offered to the administration at SPC by recent graduates in order to make their training smoother or the transition to teaching easier for future graduates. In particular, two graduates asked to have SPC graduates come to campus “to discuss their first year as teachers” with current students. “Rap sessions with teachers currently in the classroom” could help to better prepare education students “in terms of expectations and what really happens in the classroom.” Two other graduates recommended that there be “more collaboration between program coordinators and school district personnel. This would allow students to learn district procedures. Many students end up working in the same county, so this would be quite helpful.” In addition, students in the education “program should be able to attend the trainings through the county offered to teachers.” Twelve graduates asked SPC to provide more hands-on or real world experiences to prepare them for teaching. Their suggestions ranged from simply asking for more time for classroom observation, “pre-service hours,” and “field trips,” to better preparation for the poverty of homeless students, the lack of services available for students with special needs, and the lack of support for teachers to question the way things are done. Eight SPC graduates expressed disappointment with the advisement that they received. Four students described the “negative support” that they

received from an academic advisor who treated them “unfairly” and “with suspicion,” “for NO reason,” which they felt was “very unprofessional.” One of these graduates suggested that “[s]tudents should be allowed to change Academic Advisors when confronted with one that is not in their best interest.” Eight respondents mentioned that they did not receive sufficient direction or communication from advisors and so they needed “more detailed explanation[s] of what will be expected of you at the end in order to graduate.” Five graduates asked for “more assistance in job placement,” particularly “[w]ith the present hiring freeze”; it would be nice to learn how to “‘break’ into a school system.”

The final area that SPC graduates asked administrators to improve was related to scheduling. Six graduates asked for more classes to be available at one time, or even to offer “every class on all campuses” or to “[o]ffer All classes EACH semester.” Other graduates recommended offering more courses in the summer or online. For students who “worked full-time,” “traveled to school,” had family responsibilities or other “life events,” they asked for “more flexibility” in order “to complete a degree...without having to wait for a semester for the class needed.” Several students explained how difficult it was for them to balance working, family finances, caring for family members, long drives to campus and field placements, along with coursework and group projects. They also noted the difficult of added life stressors such as surgery, marriage, divorce, childcare, pregnancy, and illness while in school. In addition, a graduate noted that it was difficult while she was still working on her bachelor’s in teacher education to predict exactly what her future job would require; therefore, she thought that either “all of the coursework for needed endorsement” should be included in the program, or that SPC should “offer the

coursework through the school post-grad.” Several other SPC graduates mentioned that they wished that SPC would offer a master’s program in education, and that they want their friends, children, and coworkers to take classes at SPC.

Several recommendations were also made to SPC administrators in order to improve students’ experience in field placements. In particular, “better communication between students, supervisors, and instructors” including “more consistent and timely information” was requested by six SPC graduates. In addition, five SPC graduates asked for “better” screening of cooperating classroom teachers so that students could get “more guidance” to maximize their learning while student teaching. One SPC graduate asked for two internships instead of one. Another SPC graduate noted that “during our internship[s]” it would have been helpful to have the opportunity “to get together with classmates and talk about their adventures.” In addition, while several SPC graduates praised the professionalism of SPC administrators and individual program directors and faculty, two others asked for them to be more professional and consistent in their “up and down personalities,...their attitude and teaching,...also in their appearance.” While another graduate warned that “schools should be careful [not] to put too much in one professor or administrator’s hands, they should value constructive criticism given in teacher evals.” Another graduate recommended that administrators surprise or just “sit in on one of the classes and critique professors teaching and the relevance of their teaching to the real world in order to help them perform better.” In addition, another graduate who was satisfied overall with her education questioned the professionalism of the administrators who could have been role models for “how to act,” but instead she mentioned that she “was just amazed at the petty bickering between the staff.”

Several recommendations were made by SPC graduates regarding ways for SPC professors to improve the coursework. In particular, seven graduates asked for “more practical methods to deal with classroom management” because “putting one behavior modification into place is easy—it’s when you have 3-4 kids with different behavior needs” that it gets tricky for a new teacher. Also, two graduates asked for “more experience writing IEPs and writing assessment tools for students with disabilities” and another student asked for more experience with “how to teach ESOL students” perhaps by requiring “one practicum...in a classroom with a percentage of ESOL students.” Similarly, two other SPC graduate suggested that all students should be required to “spend some time in an inner-city urban school” or to observe a classroom in a low-income area. “They may not end up teaching there but they will develop many skills not taught in college that they will use in any school.” In addition, eight SPC graduates asked for less “repetition on writing very large Danielson lesson plans that will never be used in the regular classroom.” Three SPC graduates asked for more focus on conducting “formal assessment[s]” of students, while two asked for more training in “administrative” responsibilities or “paperwork.” Three other SPC graduates recommended “more emphasis on specific strategies in teaching math and reading/languages arts” in order to know “what/how students are currently being taught” and “resources” to turn to in order to learn how to teach something unfamiliar.

For Practice at USF

In addition to the recommendations that SPC graduates made to improve their program as described above, USF graduates offered many suggestions of their own to strengthen their baccalaureate program (some of the USF graduates’ suggestions were

similar to the SPC graduates' comments and others, where noted below, were different). In terms of recommendations to administrators, one USF graduate stated that it is of critical importance to remain focused on the primary goal of ensuring that "future teachers are ready for the real classroom and all of its accompanying hidden responsibilities." Four USF graduates asked for more classroom experience with additional internships and observations, or even to "bring in more current-classroom teachers to show lessons" rather than focusing on theory "in a class full of adults." In addition, three USF graduates asked that professors have more recent teaching experience in the specific field that they are teaching (so that a professor with recent Elementary teaching experience would be responsible for teaching classes focused on Elementary education). This was cited as important in order to get enough "real-world applications" of the material, including "teaching how to do good lesson plans" at the appropriate level "and what their purposes are." In terms of advisement, 23 respondents, which is over one-fourth of all of the USF respondents, asked for additional or more accurate advisement. Their suggestions ranged from more assistance "choosing classes" and facilitating the transfer process into the baccalaureate program, to meeting degree program requirements to finish the baccalaureate on time, and to facilitate moving into the USF master's in education program. In addition, similar to the SPC respondents, USF graduates also asked for better communication, organization, and consistency in administration about program requirements for ESOL binders, portfolios, tests, balancing heavy class loads and assignments among semesters, and so on. In addition, three USF graduates asked for additional help in the process of getting a job.

Two other areas for improvement cited by USF graduates which were not mentioned by SPC graduates were to improve parking at USF; this was cited as one student's "biggest problem," although it "had nothing to do with the program itself." Another USF graduate also felt that it was unfair to expect her to "have taken the GKT (general knowledge test required as one of the Florida Teacher Certification Examinations) BEFORE entering into the education department." Similar to the SPC graduates, over 1/3 of USF graduates also expressed their difficulty balancing work, school, and internship schedules, as well as family and financial responsibilities while in school. USF graduates also noted the challenge of completing their coursework in four years, and difficulty finding the required classes available, long commuting times, a lack of later evening classes, difficulty scheduling group project meeting times, and balancing unusually heavy reading and writing assignments. A much larger proportion of USF graduates voiced scheduling problems than SPC graduates had (over 50 USF graduates vs. less than 10 SPC graduates).

Field work was another area where USF graduates, like SPC graduates, made specific recommendations to administration in order to improve the academic experience of future students. Interestingly, 12 USF graduates recommended increasing the amount of time spent in the classroom, and some asked for placements to be made earlier. Nine USF graduates asked for more attention to be paid to "the quality of each internship cooperating teacher" so that supervising teachers "are using research-based strategies" and are open to different new teachers' learning and lesson planning styles. Similar to SPC graduates, although far less frequently mentioned, a couple of USF graduates also

asked for more consistent communication between their college and the supervising teachers.

In terms of the recommendations that USF graduates had for professors in order to improve their coursework, several USF graduates, similar to the SPC graduates, asked for more training on how to write IEPs (Individual Education Plans) and other everyday teaching routines/paperwork such as setting up a classroom, attendance, grading, and other forms. USF graduates also asked for more behavior and classroom management training, and more content-driven classes in both reading and math instruction (as explained by one graduate, more classes like “Teaching Algebra” instead of “Child Development” or “Introduction to Ed Theory”). A couple of USF graduates also asked for more updated coursework, such as more of a focus on ESE inclusion, and also going beyond Power Point presentations to include “how to use an elmo, projector, or a smart board.” A couple of USF graduates mentioned that the “ESOL 1, 2, and 3 were not beneficial and a waste of time because that material is ingrained throughout the College of Education curriculum.” A couple of USF graduates also noted that they were “glad to have taken care of ESOL [endorsement] prior to graduating” and asked that USF offer “more endorsements” such as “reading” and “gifted” endorsements. This request from USF graduates was notably different from SPC respondents because the SPC education baccalaureate degree programs have the reading endorsement already built in.

For Further Research

At this point, initial dissertation-length research studies have been conducted on the impact of the vertical expansion of the community college on faculty (Ross, 2006), on costs to taxpayers and students (Bemmel, 2008), and to graduates (the present study). In

addition, some individual institutions conduct their own individual employer surveys, which may or may not be done on an annual basis and may or may not cover graduates from more than one class year. A larger-scale survey (perhaps surveying principals), comparing employer satisfaction as well as other additional measures of quality of teachers (such as teacher certification exam test scores) comparing teaching graduates from community colleges (or recently created state colleges) with teaching graduates from state universities, would be interesting and would help to triangulate the findings of the present study. Of course, if it is possible to gather these data from more than one of the institutions that has vertically expanded their offerings, the opportunities for generalization and comparisons would be greater. One possible way to do this is by utilizing a common survey instrument that incorporates questions of interest to both community (or state colleges) as well as state universities, such as the survey instrument that was developed for this study, created by merging questions from instruments focused on the various institutional types. In addition, if a proportionately larger sample of alumni respondents could be sampled for this research, it would be easier to determine statistical significance. In cases where this study found borderline statistical significance, a higher response rate and more in-depth statistical analyses could illuminate the results of this study; for example, in the case where SPC graduates were found to have rated the courses' mini-scale created for factor analysis as higher than their USF counterparts 92% of the time.

In light of the present concern with local teacher shortages and high teacher attrition rates, an interesting study would be one that followed up on the present research by asking respondents five years from now if they have really remained in teaching as the

majority had stated that they were planning. Furthermore, research comparing the responses of graduates of community college or strictly undergraduate baccalaureate-granting institutions to those of state universities to see if they are more or less likely to remain in teaching would be interesting. This is because literature postulates that community college graduates are more likely to be place-bound and committed to remaining in their local community (Shkodriani, 2004). In addition, the literature indicates that these students are more committed to and understanding of their communities (Allen, 2006). Building on the idea of a follow-up study and on Bailey and Morest's (2006) equity model, it would also be interesting to see how many of the graduates go on to achieve the academic goals that they mentioned in question 9 of the present survey (where close to 25% of SPC graduates stated that they hope to attain doctoral-level degrees). This finding raises some questions about whether SPC may be attracting unique high-velocity students and, if so, what about SPC's program attracts them. It might also be worthwhile to consider other baccalaureate degree programs in addition to the field of education so that the quality of various institutions could be compared rather than simply looking at one field within which graduates from different institutions may have experienced more similarities because they were in the same field. In addition, future research could look at the students who started but did not graduate from the baccalaureate programs, as well as graduates who did not end up in teaching positions, in order to consider what their voices and experiences could add to the results of the present study, particularly in terms of recommendations for the institutions that they attended to help ameliorate unintended challenges or consequences that they may have faced.

USF's College of Education and IRB process were very open to outside research and USF has many more teacher education baccalaureate graduates and majors than SPC. In addition, USF offers a master's degree in education while SPC does not. Therefore it may be interesting to conduct a future study on graduate students at USF who completed their baccalaureates at SPC, not USF. In the present study, graduate students were automatically excluded from the study if they indicated that they were exclusively full-time students and not teaching full-time. However, including the voices of these students might also have added to the breadth of voices that were captured in the present study. (In fact, the researcher was offered a way to access currently enrolled USF master's in education students via e-mail who had also completed their baccalaureate degrees in education from USF.) The present researcher also received approximately 10 completed surveys from USF baccalaureate graduates, which were not included in the present study because they arrived after the data analysis was completed, and those respondents could also be included in future studies.

For the present study, the researcher chose to include baccalaureate recipients from 2004-08, but it could be argued that the graduates from 2008 did not have a sufficient amount of time to obtain teaching positions and also to evaluate the quality of their programs and teaching competencies; therefore, they should have been excluded from the sample. For the present study, surveys were completed by USF baccalaureate recipients from many years prior to 2004, and also graduation programs were obtained from USF after the data collection phase of this study was completed. Therefore, there is room for additional research to be conducted on a larger sample of USF graduates in the future. It should be noted that the majority of SPC respondents were found online via

Facebook and Whitepages.com, through school websites, and with snowballing, whereas the USF respondents were primarily located via hard-copy mailings addressed by a private mailing company based in Tampa in order to protect the privacy of alumni addresses and also partially through K-12 school websites. Therefore, there are potential selection biases in the two samples based on their different main modes of recruitment.

Conclusion

In this chapter, a summary of the findings of this study were presented along with an interpretation of the findings connecting them to the existing related literature and empirical studies. In addition, a critique of the study has been presented along with recommendations for further research. It is clear where the current exploratory study fits into the existing body of literature and research studies as well as how future research can build upon it.

Although this study was exploratory and the first to consider the perspectives of graduates from one recently vertically-expanded community college in Florida, the results of the present study shed positive light on this new delivery format. This was a surprise to the researcher as she did not have first-hand knowledge of the perspectives of graduates of these two institutional types who were examined for this research study. When the opinions of the recent graduates of the new baccalaureate delivery model and the traditional state model were compared, they rated their competencies as teachers with no significant differences reported between the two institutions' samples or groups of respondents. The results of this exploratory study leave future researchers to consider more thoroughly why teaching competencies by institution did not differ significantly. This could be due to small sample sizes or somewhat simple statistical analyses.

However, it also could be attributed to the fact that the offerings at the two institutions are rather similar as they are both approved by the same regional accreditor, prepare students to pass the same licensing exams, and must follow the same state guidelines. Furthermore, the graduates of the new vertically-expanded community college indicated that they were significantly more place-bound than their state university counterparts and were found to feel significantly more satisfied with their decision to pursue a teacher education baccalaureate degree. In particular, the graduates of the vertically-expanded community college rated their advisement and early field experiences significantly higher than did their state university counterparts.

The results of this study suggest that if the cost of baccalaureate degree delivery is cheaper to both tax payers and students via the expanded community college model, and if it is able to reduce local teacher shortages by adding to the pool of qualified working teachers who are satisfied with their training and careers, it is an effective model worthy of investment from both taxpayers and students alike.

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APPENDIX A

National Survey of Teacher Education Program Graduates (Rahman, 2000)

NATIONAL SURVEY OF TEACHER EDUCATION GRADUATES

INSTRUCTIONS:

1. Please use a pencil to record your responses on the answer sheet we have provided.
 2. Mark only ONE response to each question.
 3. Whenever you are asked to skip a series of questions, leave the answer sheet for these items blank.
-
1. Have you ever worked as a full-time teacher?

| | |
|--------|-------------------------------|
| (1) No | If <u>Yes</u> , for how long? |
| | (2) less than one year |
| | (3) 1 to 2 years |
| | (4) 2 to 3 years |
| | (5) more than 3 years |

 3. What was your major field of study during this degree?
 - (01) Elementary Education
 - (02) Special Education
 - (03) Sensory Disabilities Secondary/K-12
 - (04) Agriculture
 - (05) Art
 - (06) Biology
 - (07) Business
 - (08) Chemistry
 - (09) Civics/Government
 - (10) Computer Science
 - (11) Dance
 - (12) Dental Hygiene
 - (13) Distributive Marketing
 - (14) Earth Sciences
 - (15) English/Language Arts
 - (16) Foreign Language
 - (17) General Science
 - (18) Health
 - (19) Home Economics
 - (20) History
 - (21) Vocational Education
 - (22) Journalism
 - (23) Mathematics
 - (24) Music
 - (25) Physical Education
 - (26) Physical Sciences/Physics
 - (27) Reading
 - (28) Social Sciences (e.g., Psych)
 - (29) Social Studies
 - (30) Speech/Theatre
 - (31) Technology Education
 - (32) Other: _____

4. Which of the following best describe your current status?
- (1) classroom teacher
 - (2) in education, but not teaching (e.g., counselor, librarian)
 - (3) instructor/trainer in a non-school setting
 - (4) social service provider
 - (5) full-time student
 - (6) full-time homemaker
 - (7) other: _____

If you checked (1) or (2) above, please answer Part A below. If not, please skip to Part B, question 24.

Part A (Teachers/Others in Education)

5. How would you describe your current position in education?
- (1) full-time teacher
 - (2) permanent substitute
 - (3) part-time teacher
 - (4) day-to-day substitute
 - (5) educational specialist (e.g., librarian, counselor)
 - (6) school administrator/supervisor
 - (7) other: _____

If you are a Full-Time Teacher or a Permanent Substitute, please continue. All others, please skip ahead to Part B, question 24.

6. At what grade level do you teach?
- (1) preschool
 - (2) early elem. (grades K-3)
 - (3) upper elem. (grades 4-6)
 - (4) middle school/jr. high
 - (5) senior high school
 - (6) more than one level/K-12
7. About what percent of your present teaching assignment is in the grade(s) or subject area(s) in which you were certified/endorsed?
- (1) 25% or less
 - (2) 50%
 - (3) 75%
 - (4) 100%

8-10. How would you describe your school building?

- | 8. <u>Type</u> | 9. <u>Setting</u> | 10. <u>Number of students:</u> |
|----------------|----------------------------|--------------------------------|
| (1) public | (1) inner-city | (1) less than 300 |
| (2) parochial | (2) urban (pop. > 100,000) | (2) 300 to 599 |
| (3) private | (3) suburban | (3) 600 to 899 |
| | (4) town (pop. > 25,000) | (4) 900 to 1,200 |
| | (5) small town/rural | (5) more than 1,200 |

11. Is the school in which you teach located within 50 miles of the...
- (1) high school from which you graduated
 - (2) college from which you received your teacher preparation
 - (3) both of the above
 - (4) neither of the above
12. Are the socioeconomic backgrounds of most of your current students lower, higher, or similar to those of your high school classmates?
- (1) lower
 - (2) higher
 - (3) similar
13. Approximately what proportion of the students in your class(es) are from minority ethnic groups (Black, Hispanic, etc.)?
- (1) less than 10%
 - (2) 10%
 - (3) 25%
 - (4) 50%
 - (5) 75%
 - (6) more than 75%
14. Is this percentage lower, higher or comparable to the proportion of students of color in your high school class?
- (1) lower
 - (2) higher
 - (3) comparable
15. Are you a special education teacher?
- (1) Yes
 - If no, have you experienced inclusion in your classroom(s)?
 - (2) yes, of one or two students
 - (3) yes, of more than two students
 - (4) none
16. How would you characterize the level of academic motivation of your students?
- (1) very low
 - (2) low
 - (3) average
 - (4) high
 - (5) very high
17. How would you characterize the frequency of discipline problems in your class(es)?
- (1) few, if any, problems
 - (2) occasional problems
 - (3) many problems
18. Do you feel you are a(n) ____
- (1) inferior teacher
 - (2) below average teacher
 - (3) average teacher
 - (4) better than average teacher
 - (5) exceptional teacher

19. How would most of the instructors in your teacher education program react to your methods of teaching?
- (1) strongly approve
 - (2) approve to some extent
 - (3) disapprove to some extent
 - (4) strongly disapprove
 - (5) I don't know how they would react
20. Which of the following activities is most likely to help you become a better teacher? (Choose One)
- (1) Observe other teachers and talk to them.
 - (2) Be observed by other teachers or supervisors and talk with them.
 - (3) Read professional journals/publications.
 - (4) Take additional graduate courses in education.
 - (5) Take additional graduate courses in the subjects you teach.
 - (6) Participate in teacher inservices/workshops.
21. Which of the following activities is least likely to help you become a better teacher? (Choose One)
- (1) Observe other teachers and talk to them.
 - (2) Be observed by other teachers or supervisors and talk with them.
 - (3) Read professional journals/publications.
 - (4) Take additional graduate courses in education.
 - (5) Take additional graduate courses in the subjects you teach.
 - (6) Participate in teacher inservices/workshops.
22. Do you have ready access to a personal computer in your school?
- (1) No If yes, how do you use computers in your teaching?
 - (2) not at all.
 - (3) as a tool in teaching or reinforcing student learning (e.g., in teaching writing or math)
 - (4) for my own record keeping, preparation of instructional handouts, etc.
 - (5) both of the above
23. Five years from now, do you plan to be ____
- (1) teaching
 - (2) a school administrator
 - (3) an educational specialist (e.g., math consultant, librarian)
 - (5) employed outside the field of education
 - (6) temporarily out of the work force (e.g., care for a family)
 - (7) permanently out of the work force (e.g., retired)
 - (8) Other _____

Part B

24. Which of the following statements best describes why you are not in a full-time teaching position at the present time?

- (1) Teaching was not my first choice of careers at the time I began looking for a job.
- (2) I was offered another job within the field of education (e.g., school administrator).
- (3) I was offered another job outside of education.
- (4) A full-time teaching position was not available in the geographic area where I hoped to reside.
- (5) I tried, but I couldn't find a full-time teaching position anywhere.
- (6) I wanted to continue my education.
- (7) I needed to attend to home/family affairs.
- (8) Other _____

25. Do you regret you are not a full-time teacher?

- (1) Yes
- (2) No

26. Do you feel you are underemployed?

- (1) Yes
- (2) No

27. To what extent did the work you completed in your teacher education program contribute to your preparation for your current job?

- (1) no contribution
- (2) minor contribution
- (3) moderate contribution
- (4) strong contribution

Part C

28-35 On a scale of one to seven, how would you describe your response to each of the following features of your current job?

| | (1) very negative | | | | (7) very positive | | |
|--|-------------------|---|---|---|-------------------|---|---|
| 28. Salary/fringe benefits | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 29. Opportunities for professional advancement | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 30. Level of personal/professional challenge | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 31. Level of professional autonomy/decision-making authority | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 32. General work conditions (hours, class size, work load, etc.) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 33. Interactions with colleagues | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 34. Interactions with students | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 35. Using the same scale, how would you describe your overall level of satisfaction with your current job? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

36. If you had to do it all over again, would you still enroll in a teacher education program?

- (1) definitely no
- (2) probably no
- (3) probably yes
- (4) definitely yes

II. Ratings of Program Quality

37-43. On a scale of one to seven, how would you rate the overall quality of—

| | (1) exceptionally weak | | | (7) exceptionally strong | | | |
|--|------------------------|---|---|--------------------------|---|---|---|
| 37. the liberal arts/general education courses | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 38. courses in teacher preparation program | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 39. early (pre-student teaching) field-based experiences | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 40. your student teaching/internship experience | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 41. feedback from cooperating teachers/mentors | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 42. feedback from college coordinators/supervisors | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 43. advice/counseling from your academic advisor | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

44. To what extent did your views of the professional roles and responsibilities of teachers change from the time you entered your teacher preparation program to program completion?

- (1) not at all
- (2) not much
- (3) some
- (4) a lot

45. To what extent are courses in the subject(s) you currently teach relevant to the needs of teachers?

- (1) very relevant
- (2) moderately relevant
- (3) largely relevant

46-58. How would you rate the adequacy of your knowledge and understanding in each of the following areas?

| <u>Your knowledge and understanding of--</u> | weak | adequate | strong |
|---|------|----------|--------|
| 46. mathematics | 1 | 2 | 3 |
| 47. history/social sciences | 1 | 2 | 3 |
| 48. natural sciences | 1 | 2 | 3 |
| 49. English/language arts | 1 | 2 | 3 |
| 50. visual and performing arts | 1 | 2 | 3 |
| 51. multicultural issues and perspectives | 1 | 2 | 3 |
| 52. the historical and philosophical development of thought in your major field | 1 | 2 | 3 |
| 53. contemporary educational issues | 1 | 2 | 3 |
| 54. theories/principles of how students learn | 1 | 2 | 3 |

| | | | |
|---|---|---|---|
| 56. child/adolescent growth and development | 1 | 2 | 3 |
| 55. social and political roles of schools in American society | 1 | 2 | 3 |
| 57. classroom management techniques/procedures | 1 | 2 | 3 |
| 58. legal and ethical responsibilities of teachers | 1 | 2 | 3 |

59. Thinking in terms of your current role as a teacher, do you wish you had a stronger background in any of the areas listed in Questions 46-58 above? (If you are not teaching, respond to this question in terms of your current position.)

(1) No

(2) Yes – Please identify up to three areas in which a stronger background would be helpful.

Write the three number(s) corresponding to these areas here:

60-81. How would you have rated the adequacy of your skills in each of the following areas at the time you completed your teacher preparation program: (1) weak, (2) adequate, (3) strong?

| <u>The adequacy of your skills in...</u> | weak | adequate | strong |
|--|------|----------|--------|
| 60. planning stimulating lessons | 1 | 2 | 3 |
| 61. motivating students to participate in academic tasks | 1 | 2 | 3 |
| 62. teaching basic knowledge and skills | 1 | 2 | 3 |
| 63. teaching problem solving and higher-order thinking to all students | 1 | 2 | 3 |
| 64. selecting, preparing, and using educational media | 1 | 2 | 3 |
| 65. using computer in instruction | 1 | 2 | 3 |
| 66. referring students for special assistance when appropriate | 1 | 2 | 3 |
| 67. working with gifted and talented students | 1 | 2 | 3 |
| 68. working with mainstreamed or other special needs students | 1 | 2 | 3 |
| 69. accounting for, and build on, students' cultural diversity in the instruction you provide | 1 | 2 | 3 |
| 70. adapting instruction to address differences in students' academic aptitude | 1 | 2 | 3 |
| 71. enhancing students' sense of personal achievement and self-worth | 1 | 2 | 3 |
| 72. monitoring students' progress and adjusting instruction accordingly | 1 | 2 | 3 |
| 73. designing/interpreting measures of student work and achievement | 1 | 2 | 3 |
| 74. communicating with parents | 1 | 2 | 3 |
| 75. using the community as a resource for teaching and learning | 1 | 2 | 3 |
| 76. using cooperative learning techniques (e.g., jigsaw, Teams-Games-Tournaments (TGT), or others) | 1 | 2 | 3 |
| 77. responding appropriately to disruptive student behaviors | 1 | 2 | 3 |
| 78. assessing the expectations of the community and school administration | 1 | 2 | 3 |

| | | | |
|---|---|---|---|
| 79. developing and/or representing a given concept or idea in a variety of ways (explanation, metaphors, graphs, pictures, manipulatives) | 1 | 2 | 3 |
| 80. planning and implementing a successful first week or school | 1 | 2 | 3 |
| 81. reflecting upon and improving your teaching performance | 1 | 2 | 3 |

If you are Not Currently Teaching, please skip ahead to question 83.

82. Do any of the skills listed in question 60 to 81 represent areas in which you are experiencing problems or frustrations in your current teaching assignment?

(1) No

(2) Yes – please identify up to three areas that pose the most significant problems/frustrations. Write the three number(s) corresponding to these areas here:

— — —

III. Background Information

83. Gender: (1) female (2) male

84-85. Age: (please record your age in columns 84 and 85 on your answer sheet)

86. How long has it been since you completed all the requirements of your teacher education program?

(1) less than one year

(2) 1 to 2 years

(3) 2 to 3 years

(4) more than 3 years

87. Did you complete your teacher education program while earning your undergraduate degree?

(1) Yes If No, how many years elapsed between the time you earned your BA/BS degree and the start of your teacher preparation program?

(2) less than 5 years

(3) 5 to 10 years

(4) more than 10 years

88. Did you earn your BA/BS degree from the institution that sent you this survey?

(1) yes (2) no

89. What is your ethnic background?

(1) American Indian or Alaskan

(2) Asian or Pacific Islander

(3) Black, non-Hispanic

(4) Hispanic

(5) White, non-Hispanic

(6) Other

90. What is the highest degree or highest level of education you hope to attain?
- (1) bachelor's degree—skip ahead to question 93
 - (2) B.A. plus number of graduate credits required for continuing/permanent certification
 - (3) master's degree
 - (4) specialist's degree/certificate of advanced study
 - (5) Ed.D., Ph.D. or other advanced degree

91. Do you plan to do your graduate work in education?
- (1) yes
 - (2) not sure
 - (3) no

92. Do you plan to do your graduate work at the institution that sent you this survey?
- (1) yes
 - (2) not sure
 - (3) no

93. Did you use the Office of Career/Placement Services?
- (1) No
 - If Yes, how would you rate the quality of the services?
 - (2) poor
 - (3) fair
 - (4) good
 - (5) excellent

IV. Views of Teaching: Please answer the following series of questions in terms of your most recent teaching assignment.

(For some of you, this will be student teaching.)

94. Which of the following criteria are you most likely to consider when measuring your success as a teacher? The extent to which students...
- (1) like and respect me as a teacher.
 - (2) learn what I try to teach them.
 - (3) gain a measure of self-confidence and self-worth in my classroom.
 - (4) get along with each other.
95. Student behavior problems may result from a number of different sources, including those listed below. Which of these would you rank as the most frequent source of student behavior problems in classroom settings?
- (1) teacher's inadequate planning/classroom management
 - (2) teacher's failure to establish a supportive classroom environment.
 - (3) unresolved problems students experience outside the classroom setting
 - (4) conflicts between values students acquire at home and those that are prized in schools
 - (5) parents' failure to support teachers/schools.
96. In adapting instruction to address differences in students' academic achievement, are you most likely to vary the...
- (1) content you teach to different students
 - (2) instructional methods you use with different students
 - (3) standards of achievement you expect students to attain (higher standards for more capable students)

97. Some argue that students learn best when they have to figure things out for themselves instead of being told or shown. Do you agree?
- (1) Yes
 - (2) Yes, but only if students have mastered requisite concepts and skills first.
 - (3) No, because some students are not capable of figuring things out for themselves.
 - (4) No, for some other reasons.
98. For which students would instructional materials that emphasize conceptual understanding and higher-order thinking in the most challenging subject you teach be well suited?
- (1) Your talented students
 - (2) Your lower achievement students
 - (3) All of your students
 - (4) None of your students.
99. Which of the following questions is most likely to occur to you when you are trying to decide what content to teach or what not to teach? Will knowing this content help students...
- (1) succeed in later grades or later courses in the subject area?
 - (2) pass state or district tests?
 - (3) acquire the practical knowledge base they will need to function effectively as adults in our society?
 - (4) understand the people and events that are currently shaping their lives?
 - (5) enjoy richer or more meaningful adult lives?
100. Do you believe you can reach even the most difficult or least motivated students?
- (1) Yes
 - (2) No
 - (3) Yes, with some qualifications
 - (4) No, with some qualifications
101. If students seem puzzled or confused at some point during lesson, what are you most likely to do?
- (1) Try to resolve the confusion by providing a clearer example or better explanation.
 - (2) Provide sufficient support for students to work through the source of the confusion on their own.
 - (3) Downplay the seriousness of their confusion so students won't become discouraged.
102. When students fail to achieve intended goals and objective, that failure is often attributed to one of the following sources. Which do you believe is the most frequent source of failure?
- (1) students' home background
 - (2) students' indifference or lack of motivation
 - (3) parents' failure to stress the importance of school
 - (4) teachers' use of inappropriate methods of teaching
 - (5) teachers' failure to consider the unique interests and abilities of students

APPENDIX B

Miami Dade College Baccalaureate in Education Alumni Survey

Baccalaureate in Ed Alumni Survey

MIAMI DADE COLLEGE
BACCALAUREATE IN EDUCATION ALUMNI SURVEY

As a graduate of the Baccalaureate in Education program at MDC, your feedback is very important to us. Please take a moment to complete this survey. Your answers will help improve the quality of education students receive at MDC. Your responses will be kept confidential. Thank you!

SECTION 1. Please use the scale on the left of each item to rate yourself in the following areas. Then use the scale on the right of each item to rate how helpful MDC was to you in your development in these areas.

| Self-Rating | | | | | MDC Helpfulness | | | | |
|---------------|---------|---------------|----------|--|-----------------|---------|------------------|-------------|----------|
| Above Average | Average | Below Average | Not sure | | Very Helpful | Helpful | Somewhat helpful | Not helpful | Not sure |
| | | | | Ability to write effectively using appropriate grammar | | | | | |
| | | | | Ability to speak and present information effectively | | | | | |
| | | | | Ability to develop, administer, and interpret a variety of assessments to measure student mastery of specified outcomes | | | | | |
| | | | | Ability to communicate effectively with students in the classroom | | | | | |
| | | | | Ability to manage the classroom and deal with discipline problems effectively | | | | | |
| | | | | Appreciation of the need for lifelong learning and professional development | | | | | |
| | | | | Ability to provide opportunities for students to develop critical and higher-order thinking skills | | | | | |
| | | | | Ability to accept and value students from diverse cultures and linguistic backgrounds and treat all students equitably | | | | | |
| | | | | Ability to use effective strategies for instructing students with limited English proficiency | | | | | |
| | | | | Understanding of the Code of Ethics and Principles of Professional Conduct of the Education Profession in Florida | | | | | |
| | | | | Ability to plan instructional activities to address diverse learning styles that are based on established human development learning theories and concepts | | | | | |
| | | | | Ability to recognize signs of reading or computational difficulties in students and address appropriately | | | | | |
| | | | | Knowledge of the subject matter in your program area and its application to real-world settings | | | | | |
| | | | | Knowledge and understanding of Sunshine State Standards | | | | | |
| | | | | Ability to use a variety of techniques to establish an effective teaching environment in the classroom | | | | | |
| | | | | Ability to plan instructional experiences that enable all students to master performance and learning outcomes | | | | | |
| | | | | Ability to work cooperatively with families and colleagues to improve educational experiences | | | | | |
| | | | | Ability to enhance teaching and learning through the use of appropriate technology | | | | | |

Section 2. Please answer the following additional questions:

How would you rate the overall quality of instruction provided by MDC?

- Excellent
- Good
- Average
- Fair
- Poor

How would you rate the overall level of service provided by MDC?

- Excellent
- Good
- Average
- Fair
- Poor

How would you rate your internship experience?

- Excellent
- Good
- Average
- Fair
- Poor

How would you rate your overall satisfaction with MDC?

- Excellent
- Good
- Average
- Fair
- Poor

What was your program area?

- Secondary mathematics
- Secondary science
- Exceptional student education

On which campus did you take most of your baccalaureate classes?

- North Campus
- Kendall Campus
- Walton Campus
- Homestead Campus
- InterAmerican Campus

What did you like the most about the Baccalaureate in Education program at MDC?

How could MDC improve the program?

Please tell us how the program prepared you to be an excellent teacher.

APPENDIX C

Final Version of Disseminated Survey of Graduates

Disclaimer:

By clicking the word "Next" below you acknowledge your understanding that this survey of B.S. Education graduates is being conducted by an independent researcher outside of both St. Petersburg College and The University of South Florida and that these two institutions are in no way involved with nor endorsing this research. Therefore, participation will not affect your current nor future relationship with those institutions in any way.

NEXT**PART A. BACKGROUND**

1. What date did you complete your bachelor's in teacher education program (including the certification exams)?

Please Specify **Month** **Year**
 _____ _____

2. What was your major field of study during this degree? (e.g. Elementary Education, Secondary Biology Education, Secondary Math Education, Exceptional Student Education,...) (please specify)

3. On which campus did you take most of your baccalaureate classes? (please specify)

4. Did you apply to any other teacher education baccalaureate programs?

No Yes

If so, where? (please specify) _____

5. Did you take any of your classes on-line?

no

1

2-3

4-5

6-8

more than 9

other (please specify)

6. What is your gender?

female

male

7. What is your age? (please specify)

8. What is your ethnic background?

- American Indian or Alaskan
- Asian or Pacific Islander
- Black, Non-Hispanic
- Hispanic
- White, Non-Hispanic
- Other (please specify) _____

9. What is the highest degree or highest level of education you hope to attain?

- bachelor's degree
- bachelor's degree plus number of graduate credits required for continuing/permanent certification
- master's degree
- specialist's degree/certificate of advanced study
- Ed.D., Ph.D., or other advanced degree

10. Prior to graduating from this program, had you ever worked as a fulltime teacher?

- No
- Yes
- If yes, please specify number of years _____

11. Which of the following statements best describes why you are not in a full-time teaching position at the present time?

- Teaching was not my first choice of careers at the time I began looking for a job.
- I was offered another job within the field of education (e.g., school administrator).
- I was offered another job outside of education.
- A full-time teaching position was not available in the geographic area where I hoped to reside.
- I tried, but I couldn't find a full-time teaching position anywhere.
- I wanted to continue my education.
- I needed to attend to home/family affairs.
- Other (please specify) _____

12. To what extent did your views of the professional roles and responsibilities of teachers change from the time you entered your teacher preparation program to program completion?

- not at all
- not much
- some
- a lot

13. If you had to do it all over again, would you still have enrolled in a teacher education baccalaureate program?

- definitely not
- probably not
- probably yes
- definitely yes

14. Would you recommend your institution to a friend who wants a bachelor's degree in education?

- definitely not
- probably not
- probably yes
- definitely yes

15. Which of the following best describes your current employment status?

- classroom teacher
- in education, but not teaching (e.g. counselor, librarian, etc.)
- instructor/trainer in a non-school setting
- social service provider
- full-time student
- full-time homemaker
- other (please specify)_____

PART B. EMPLOYMENT IN EDUCATION

16. How would you describe your current position in education?

- full-time teacher
- permanent substitute
- part-time teacher
- educational specialist (e.g., librarian, counselor)
- day-to-day substitute
- school administrator/supervisor
- other (please specify)_____

17. At what grade level do you teach?

- pre-school
- early elementary (grades K-3)
- upper elementary (grades 4-6)
- middle school/junior high
- senior high school
- more than one level/K-12
- other (please specify)_____

18. About what percent of your present teaching is in the grade(s) or subject area(s) in which you were certified?

- 25% or less
- 50%
- 75%
- 100%
- other (please specify)_____

19. How would you describe the type of school where you teach?

- public
- parochial
- private

20. How would you describe the setting of the school where you teach?

- inner-city
 suburban
 small town/rural
 urban (pop. > 100,000)
 town (pop. > 25,000)

21. How many students attend the school where you teach?

- less than 300
 300 to 599
 600 to 899
 900 to 1,200
 more than 1,200

22. Is the school in which you teach located within 50 miles of the...

- high school from which you graduated
 college from which you received your teacher preparation
 both of the above
 neither of the above

23. Are the socioeconomic backgrounds of most of your current students lower, higher, or similar to those of your high school classmates?

- lower
 higher
 similar

24. Approximately what proportion of the students in your class(es) are from minority ethnic groups (Black, Hispanic, Native American, Asian, etc.)?

- 25% or less
 50%
 75%
 100%
 other (please specify)_____

25. Is this percentage lower, higher, or comparable to the proportion of students of color in your high school class?

- lower
 higher
 similar

26. Do you feel you are a(n)...

- inferior teacher
 below average teacher
 average teacher
 better than average teacher
 excellent teacher

27. Five years from now, do you plan to be...

- a school administrator
- an educational specialist (e.g., math consultant, librarian)
- employed outside the field of education
- temporarily outside of the work force (e.g., care for a family)
- permanently out of the work force (e.g., retired)
- other (please specify) _____

PART C: QUALITY OF PROGRAM

(Note: If for question 15 you selected an answer other than the first two options you were automatically taken from question 15 to question 28.)

28. On a scale of one to five, at the institution where you received your bachelor’s degree in education, how would you rate the overall quality of...

| | Poor | Fair | Average | Good | Excellent |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| the liberal arts/general education courses | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| courses in teacher preparation program | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| early (pre-student teaching) field-based experience | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| your student teaching/internship experience | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| feedback from cooperating teachers/mentors | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| feedback from coordinators/supervisors | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| advice/counseling from your academic advisor | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

29. Please use the scale below to rate yourself in the following areas:

| | Above Average | Average | Below Average | Not Sure |
|--|-----------------------|-----------------------|-----------------------|--|
| Ability to write effectively, using appropriate grammar. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input type="checkbox"/> |
| Ability to speak and present information effectively. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ability to develop, administer, and interpret a variety of assessments to measure student mastery of specified outcomes. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ability to communicate effectively with students in the classroom. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input type="checkbox"/> |
| Ability to manage the classroom and deal with discipline problems effectively. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Appreciation of the need for lifelong learning & professional development. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ability to provide opportunities for students to develop critical and higher-order thinking skills. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input type="checkbox"/> |
| <input type="checkbox"/> Ability to accept and value students from diverse cultures and linguistic backgrounds and treat all students equitably. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> <input type="checkbox"/> |
| Ability to use effective strategies for instructing students with limited English proficiency. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Understanding of the Code of Ethics and Principles of Professional Conduct of the Education Profession in Florida. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | Above Average | Average | Below Average | Not Sure |
|---|---------------|---------|---------------|----------|
| Ability to plan instructional activities to address diverse learning styles that are based on established human development/learning theories and concepts. | ☺ | ☺ | ☺ | ☺ |
| □ Ability to recognize signs of reading or computational difficulties in students and address appropriately. | ☺ | ☺ | ☺ | ☺ |
| Knowledge of the subject matter in your program area and its application to real-world settings. | ☺ | ☺ | ☺ | ☺ |
| Knowledge and understanding of Sunshine State Standards. | ☺ | ☺ | ☺ | ☺ □ |
| □ Ability to use a variety of techniques to establish an Effective teaching environment in the classroom. | ☺ | ☺ | ☺ | ☺ |
| Ability to plan instructional experiences that enable all students to master performance and learning outcomes. | ☺ | ☺ | ☺ | ☺ |
| □ Ability to work cooperatively with families and colleagues to improve educational experiences. | ☺ | ☺ | ☺ | ☺ |
| Ability to enhance teaching and learning through the use of appropriate technology. | ☺ | ☺ | ☺ | ☺ |

30. What were the biggest challenges or problems that you faced while enrolled in this bachelor’s degree program?

31. What did you like the most about your Baccalaureate in Education program?

32. How could your Baccalaureate in Education program be improved?

PART D. In Our Own Words

33. Is there anything else you would like to share about your experience in your Baccalaureate in Education program?

Thank you for your participation!

In order to thank you for your participation in this dissertation research study, the author of this survey is offering an optional raffle where the stakes have now been raised so that one out of every 20 alumni whom completes this survey, or has done so in the past, will win a new iPod. If you would like to enter this optional raffle, please complete the entry form below. Your confidentiality will be insured by Victoria Shah, the author of the survey, your name will immediately be separated from your survey so that your name cannot be connected to your individual survey responses.

PART E. IPOD RAFFLE ENTRY FORM (Optional)

34. Contact Information

Name:
Address:
City/Town:
State:
ZIP:
Email Address:
Phone Number:

35. Name of College Where You Completed Your Baccalaureate in Teacher Education

36. Year of Graduation

APPENDIX D

*Teachers College, Columbia University,
IRB Determination of Exemption Letter dated May 21, 2008*

TEACHERS COLLEGE
COLUMBIA UNIVERSITY

OFFICE OF SPONSORED PROGRAMS
Box 151

Institutional Review Board

May 21, 2008

Victoria Shah
193 Sterling Place #1
Brooklyn, NY 11238

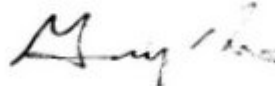
Dear Victoria:

Thank you for submitting your study entitled, "An Exploratory Study of Community College Teacher Education, Baccalaureate Alumni Experiences"; the IRB has determined that your study is exempt from review.

Please keep in mind that the IRB Committee must be contacted if there are any changes to your research protocol. The number assigned to your protocol is **08-219**. Do not hesitate to contact the IRB Committee at (212) 678-4105 if you have any questions.

Best wishes for your research work.

Sincerely,



George Bonanno, Ph.D.
Professor
Chair, IRB

cc: File, OSP

APPENDIX E

USF IRB Letter of No Review Indicated, dated July 30, 2008



July 30, 2008

Victoria Jaye Shah
193 Sterling Place, Apt. 1
Brooklyn, NY 11238

RE: Application for Exempt Certification
Title: An Exploratory Study of Community College Teacher Education Baccalaureate
Alumni Experiences
IRB#: 107128 I

Dear Ms. Shah:

On July 29, 2008, I reviewed your application for exempt certification. I determined that this is not a USF study as there are no investigators at USF, no data will reside at USF, and no facilities/resources are being used at USF. As Teachers College has exempted the study and is, therefore, the IRB of record, no USF IRB oversight or review is indicated.

USF's College of Education may wish to consult University counsel prior to releasing alumni names, but USF's IRB does not need to be involved.

We appreciate your dedication to the ethical conduct of human subject research and appreciate being informed of your study. If you have any questions regarding this matter, please call 813-974-9343.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul G. Stiles", is written over a horizontal line.

Paul G. Stiles, JD, PhD, Chairperson
USF Institutional Review Board

CC: Various B. Menzel, CCRP, USF IRB Support Staff
Arthur Mark Langer

OFFICE OF RESEARCH • DIVISION OF RESEARCH INTEGRITY & COMPLIANCE
INSTITUTIONAL REVIEW BOARDS, FWA No. 00001669
University of South Florida • 12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • Fax (813) 974-5618

APPENDIX F

*SPC Research Review Committee Approval of Research Proposal
Correspondence, dated October 27, 2008*

Date: Mon, 27 Oct 2008 15:00:55 -0400 [10/27/08 15:00:55 EDT]
From: Jesse Coraggio <Coraggio.Jesse@spcollege.edu>
To: "vjs9@columbia.edu" <vjs9@columbia.edu>
Cc: Mary Ortiz <Ortiz.Mary@spcollege.edu>, Kay Burniston
 <Burniston.Kay@spcollege.edu>, Anne Cooper
 <Cooper.Anne@spcollege.edu>
Subject: Research Review Committee Response

Ms. Shah,

The Research Review Committee has reviewed your response (received 9/5/2008) to our previous questions regarding your research proposal. You have been approved to conduct research at St. Petersburg College based on your application and with the following limitations:

1. The college can not endorse a candidate's research. Your research can have no direct or implied affiliation with the college either through
 - a. An endorsement from a college official (e.g., letter, email, etc.) or
 - b. An inferred affiliation through a non-designated link from a college website.

While you are permitted to place a link on the College of Education Student Commons website, there must be a disclaimer in the survey link stating that St. Petersburg College is in no way involved or endorsing this research. Upon selecting the link, there must also be an intermediate web page that informs the survey taker that they have left the college website.

2. Legally, the college is unable to participate in a raffle process.

If you choose to conduct your own raffle process, you may only use the names of survey participants that were provided to you through the survey process. If you choose to conduct a raffle, you are solely responsible for any legal requirements involved in a raffle process.

3. As previously mentioned, St. Petersburg College can not provide student or alumni contact information. We would recommend that you add questions to your survey to collect any demographic information that you would need about the participants in your survey. Institutional data about our students and alumni is available on the college's Institutional Research Webpage (www.spcollege.edu/central/ir).

Thank you for your interest in conducting research at St. Petersburg College and please let us know if you have any questions,

Jesse Coraggio, Ph.D.
 Director, Institutional Research and Effectiveness ([website](#))
 St. Petersburg College
 EpiCenter, Services 224
 727.341.3084
 727.341.5411 (fax)

IRE Mission: To measure performance in support of the College's mission and goals by providing accurate and timely information to promote continuous improvement.

APPENDIX G

*Codebook Version of Survey Findings
(Questions 1-29)*

1. What date did you complete your bachelor's in teacher education program (including the certification exams)?

| YEAR OF GRADUATION | SPC | USF |
|--------------------|-----------|-----------|
| 2004 | 12 | 16 |
| 2005 | 18 | 22 |
| 2006 | 16 | 20 |
| 2007 | 17 | 12 |
| 2008 | 26 | 20 |
| Total | 89 | 90 |

2. What was your major field of study during this degree? (e.g. Elementary Education, Secondary Biology Education, Secondary Math Education, Exceptional Student Education,...) (please specify)

| MAJOR | SPC | USF |
|-------------------------------|-----------|-----------|
| Elementary Education | 49 | 58 |
| Exceptional Student Education | 29 | 14 |
| Secondary Math Education | 5 | 8 |
| Secondary Science Education | 4 | 2 |
| Other | 2 | 8 |
| Total | 89 | 90 |

3. At which institution and on what campus did you take most of your baccalaureate classes? (please specify)

| INSTITUTION & CAMPUS | SPC | USF |
|----------------------------------|-----------|-----------|
| SPC Clearwater | 8 | |
| SPC Gibbs in St. Petersburg | 16 | |
| SPC Main Campus, Tarpon Springs | 58 | |
| SPC Subtotal | <u>82</u> | |
| SPC Mixed Campuses, Evenly Split | 4 | |
| SPC Other/Unspecified | 3 | |
| SPC Total | <u>89</u> | |
| USF Main Campus, Tampa | | 56 |
| USF St. Petersburg | | 16 |
| USF Lakeland | | 3 |
| USF Sarasota/Manatee | | 4 |
| USF Subtotal | | <u>79</u> |
| USF Other/Unspecified | | 11 |
| USF Total | | <u>90</u> |

4. Did you apply to any other teacher education baccalaureate programs?

| | SPC | USF |
|---------------|-----------|-----------|
| No | 84 | 82 |
| Yes | 5 | 8 |
| If so, where? | 5 | 8 |
| | | |
| Total | 89 | 90 |

5. Did you take any of your classes on-line?

| | SPC | USF |
|------------------------|-----------|-----------|
| No | 1 | 0 |
| 1 | 9 | 23 |
| 2-3 | 12 | 11 |
| 4-5 | 41 | 38 |
| 6-8 | 16 | 15 |
| More than 9 | 8 | 3 |
| Other (Please Specify) | 2 | 0 |
| | | |
| Total | 89 | 90 |

6. What is your gender?

| | SPC | USF |
|--------------|-----------|-----------|
| Female | 79 | 77 |
| Male | 10 | 13 |
| Total | 89 | 90 |

7. What is your age? (please specify)

| | SPC | USF |
|-------|-------|-------|
| Mean | 35.99 | 30.23 |
| Range | 22-61 | 21-56 |

8. What is your ethnic background?

| | SPC | USF |
|-----------------------------------|------------|------------|
| American Indian or Alaskan | 2 | 0 |
| Asian or Pacific islander | 2 | 2 |
| Black, Non-Hispanic | 4 | 5 |
| Hispanic | 2 | 7 |
| White, Non-Hispanic | 78 | 72 |
| Other (please specify) | 1 | 3 |
| Total | 89 | 89 |

9. What is the highest degree or highest level of education you hope to attain?

| | SPC | USF |
|--|------------|------------|
| Bachelor's degree | 20 | 21 |
| Bachelor's degree plus number of graduate credits required for continuing/permanent certification | 10 | 4 |
| Master's degree | 35 | 50 |
| Specialist's degree/certificate of advanced study | 2 | 5 |
| Ed.D., Ph.D., or other advanced degree | 22 | 8 |
| Total | 89 | 88 |

10. Prior to graduating from this program, had you ever worked as a fulltime teacher?

| | SPC | USF |
|---|------------|------------|
| No | 78 | 82 |
| Yes | 11 | 7 |
| If yes, please specify number of years | | |
| Total | 89 | 89 |

11. Which of the following statements best describes why you are not in a full-time teaching position at the present time?

| | SPC | USF |
|---|-----------|-----------|
| Teaching was not my first choice of careers at the time I began looking for a job | 1 | 0 |
| I was offered another job within the field of education (e.g., school administrator). | 2 | 2 |
| I was offered another job outside of education. | 0 | 0 |
| A full-time teaching position was not available in the geographic area where I hoped to reside. | 3 | 2 |
| I tried, but I couldn't find a full-time teaching position anywhere. | 7 | 3 |
| I wanted to continue my education | 1 | 6 |
| I needed to attend to home/family affairs. | 0 | 2 |
| Other (please specify) | 72 | 72 |
| Total | 86 | 87 |

12. To what extent did your views of the professional roles and responsibilities of teachers change from the time you entered your teacher preparation program to program completion?

| | SPC | USF |
|--------------|-----------|-----------|
| Not at all | 13 | 5 |
| Not much | 18 | 17 |
| Some | 36 | 44 |
| A lot | 22 | 22 |
| Total | 89 | 88 |

13. If you had to do it all over again, would you still enroll in a teacher education program?

| | SPC | USF |
|----------------|-----------|-----------|
| Definitely not | 0 | 3 |
| Probably not | 3 | 8 |
| Probably yes | 19 | 26 |
| Definitely yes | 67 | 52 |
| Total | 89 | 89 |

14. Would you recommend your institution to a friend who wants a bachelor's degree in education?

| | SPC | USF |
|----------------|-----|-----|
| Definitely not | 0 | 2 |
| Probably not | 3 | 2 |
| Probably yes | 17 | 19 |
| Definitely yes | 69 | 66 |
| Total | 89 | 89 |

15. Which of the following best describes your current employment status?

| | SPC | USF |
|---|-----|-----|
| Classroom teacher | 77 | 77 |
| In education, but not teaching (e.g., counselor, librarian, etc.) | 6 | 3 |
| Social service provider | 0 | 0 |
| Full-time student | 0 | 0 |
| Full-time homemaker | 0 | 0 |
| Other (please specify) | 6 | 9 |
| Total | 89 | 89 |

16. How would you describe your current position in education?

| | SPC | USF |
|---|-----|-----|
| Full-time teacher | 75 | 77 |
| Permanent substitute | 2 | 0 |
| Part-time teacher | 0 | 0 |
| Educational specialist (e.g., librarian, counselor) | 2 | 2 |
| Day-to-day substituting | 3 | 1 |
| School administrator/supervisor | 0 | 0 |
| Other (please specify) | 5 | 10 |
| Total | 89 | 89 |

17. At what grade level do you teach?

| | SPC | USF |
|-------------------------------|------------|------------|
| Pre-school | 0 | 2 |
| Early elementary (grades K-3) | 33 | 29 |
| Upper elementary (grades 4-6) | 22 | 19 |
| Middle school/junior high | 9 | 10 |
| Senior high school | 12 | 15 |
| More than one level/K-12 | 8 | 4 |
| Other (please specify) | 5 | 10 |
| Total | 89 | 89 |

18. About what percent of your present teaching is in the grade(s) or subject area(s) in which you were certified?

| | SPC | USF |
|------------------------|------------|------------|
| 25% or less | 2 | 4 |
| 50% | 3 | 1 |
| 75% | 6 | 4 |
| 100% | 76 | 77 |
| Other (please specify) | 2 | 3 |
| Total | 89 | 89 |

19. How would you describe the type of school where you teach?

| | SPC | USF |
|--------------|------------|------------|
| Public | 81 | 82 |
| Parochial | 2 | 0 |
| Private | 5 | 5 |
| Total | 88 | 87 |

20. How would you describe the setting of the school where you teach?

| | SPC | USF |
|------------------------|------------|------------|
| Inner-city | 12 | 12 |
| Urban (pop. > 100,000) | 21 | 22 |
| Suburban | 37 | 31 |
| Town (pop. > 25,000) | 14 | 8 |
| Small town/rural | 1 | 13 |
| Total | 85 | 86 |

21. How many students attend the school where you teach?

| | SPC | USF |
|-----------------|-----------|-----------|
| Less than 300 | 8 | 7 |
| 300 to 599 | 23 | 21 |
| 600 to 899 | 39 | 33 |
| 900 to 1,200 | 6 | 14 |
| More than 1,200 | 12 | 12 |
| Total | 88 | 87 |

22. Is the school in which you teach located within 50 miles of the...

| | SPC | USF |
|--|-----------|-----------|
| High school from which you graduated | 2 | 9 |
| College from which you received your teacher preparation | 37 | 28 |
| Both of the above | 42 | 35 |
| Neither of the above | 7 | 17 |
| Total | 88 | 89 |

23. Are the socioeconomic backgrounds of most of your current students lower, higher, or similar to those of your high school classmates?

| | SPC | USF |
|--------------|-----------|-----------|
| Lower | 49 | 44 |
| Higher | 12 | 8 |
| Similar | 27 | 35 |
| Total | 88 | 87 |

24. Approximately what proportion of the students in your class(es) are from minority ethnic groups (Black, Hispanic, Native American, Asian, etc.)?

| | SPC | USF |
|---------------|-----------|-----------|
| Less than 10% | 15 | 8 |
| 10% | 14 | 12 |
| 25% | 21 | 20 |
| 50% | 20 | 17 |
| 75% | 12 | 12 |
| More than 75% | 6 | 18 |
| Total | 88 | 87 |

25. Is this percentage lower, higher, or comparable to the proportion of students of color in your high school class?

| | SPC | USF |
|------------|-----|-----|
| Lower | 22 | 25 |
| Higher | 40 | 35 |
| Comparable | 26 | 27 |
| Total | 88 | 87 |

26. Do you feel you are a(n)...

| | SPC | USF |
|-----------------------------|-----|-----|
| Inferior teacher | 0 | 0 |
| Below average teacher | 1 | 0 |
| Average teacher | 15 | 22 |
| Better than average teacher | 50 | 49 |
| Excellent teacher | 23 | 18 |
| Total | 89 | 89 |

27. Five years from now, do you plan to be...

| | SPC | USF |
|---|-----|-----|
| Teaching | 67 | 64 |
| A school administrator | 7 | 9 |
| An educational specialist (e.g., math consultant, librarian) | 7 | 6 |
| Employed outside the field of education | 3 | 3 |
| Temporarily outside of the work force (e.g., care for a family) | 0 | 2 |
| Permanently out of the work force (e.g., retired) | 0 | 1 |
| Other (Please specify) | 5 | 5 |
| Total | 89 | 90 |

28. On a scale of one to five, at the institution where you received your bachelor's degree in education, how would you rate the overall quality of...?

| | <u>Poor</u> | | <u>Fair</u> | | <u>Average</u> | | <u>Good</u> | | <u>Excellent</u> | |
|--|-------------|-----|-------------|-----|----------------|-----|-------------|-----|------------------|-----|
| | No. | % | No. | % | No. | % | No. | % | No. | % |
| 28.1 the liberal arts/general education courses | | | | | | | | | | |
| SPC | 0 | 0 | 5 | 6% | 17 | 19% | 34 | 39% | 32 | 37% |
| USF | 0 | 0 | 3 | 3% | 22 | 25% | 43 | 49% | 20 | 23% |
| 28.2 courses in teacher preparation program | | | | | | | | | | |
| SPC | 0 | 0 | 3 | 3% | 7 | 8% | 31 | 35% | 48 | 54% |
| USF | 0 | 0 | 4 | 4% | 9 | 10% | 43 | 48% | 34 | 38% |
| 28.3 early (pre-student teaching) field-based experience | | | | | | | | | | |
| SPC | 0 | 0 | 9 | 10% | 35 | 39% | 43 | 48% | 9 | 10% |
| USF | 1 | 1% | 14 | 16% | 42 | 47% | 30 | 33% | 14 | 16% |
| 28.4 your student teaching/internship experience | | | | | | | | | | |
| SPC | 3 | 3% | 6 | 7% | 21 | 24% | 54 | 61% | 6 | 7% |
| USF | 2 | 2% | 6 | 7% | 21 | 24% | 58 | 65% | 6 | 7% |
| 28.5 feedback from cooperating teachers/mentors | | | | | | | | | | |
| SPC | 0 | 0% | 3 | 3% | 9 | 10% | 26 | 29% | 51 | 57% |
| USF | 0 | 0% | 1 | 1% | 15 | 17% | 29 | 32% | 45 | 50% |
| 28.6 feedback from coordinators/supervisors | | | | | | | | | | |
| SPC | 3 | 3% | 2 | 2% | 8 | 9% | 34 | 39% | 40 | 46% |
| USF | 4 | 5% | 4 | 5% | 7 | 8% | 33 | 37% | 43 | 48% |
| 28.7 advice/counseling from your academic advisor | | | | | | | | | | |
| SPC | 5 | 6% | 6 | 7% | 16 | 18% | 28 | 32% | 34 | 38% |
| USF | 16 | 18% | 19 | 21% | 18 | 20% | 18 | 20% | 19 | 21% |

Question 29 Teaching Competencies (for the wording of each item please refer to the survey in Appendix C)

| Item | Above Average | | Average | | Below Average | | Not Sure | |
|-------|---------------|---------|---------|---------|---------------|---------|----------|---------|
| | No. | Percent | No. | Percent | No. | Percent | No. | Percent |
| | 29.1 | | | | | | | |
| SPC | 58 | 65% | 29 | 33% | 2 | 2% | 0 | 0% |
| USF | 48 | 53% | 38 | 42% | 4 | 4% | 0 | 0% |
| 29.2 | | | | | | | | |
| SPC | 59 | 66% | 29 | 33% | 1 | 1% | 0 | 0% |
| USF | 48 | 53% | 42 | 47% | 0 | 0% | 0 | 0% |
| 29.3 | | | | | | | | |
| SPC | 45 | 51% | 41 | 46% | 3 | 3% | 0 | 0% |
| USF | 35 | 39% | 53 | 59% | 1 | 1% | 1 | 1% |
| 29.4 | | | | | | | | |
| SPC | 69 | 78% | 18 | 20% | 2 | 2% | 0 | 0% |
| USF | 69 | 77% | 21 | 23% | 0 | 0% | 0 | 0% |
| 29.5 | | | | | | | | |
| SPC | 51 | 57% | 35 | 39% | 3 | 3% | 0 | 0% |
| USF | 52 | 58% | 31 | 34% | 7 | 8% | 0 | 0% |
| 29.6 | | | | | | | | |
| SPC | 71 | 80% | 17 | 19% | 1 | 1% | 0 | 0% |
| USF | 71 | 80% | 17 | 19% | 1 | 1% | 0 | 0% |
| 29.7 | | | | | | | | |
| SPC | 47 | 53% | 41 | 46% | 1 | 1% | 0 | 0% |
| USF | 40 | 44% | 45 | 50% | 5 | 6% | 0 | 0% |
| 29.8 | | | | | | | | |
| SPC | 72 | 81% | 17 | 19% | 0 | 0% | 0 | 0% |
| USF | 72 | 80% | 18 | 20% | 0 | 0% | 0 | 0% |
| 29.9 | | | | | | | | |
| SPC | 47 | 53% | 34 | 38% | 3 | 3% | 5 | 6% |
| USF | 35 | 39% | 50 | 56% | 3 | 3% | 2 | 2% |
| 29.10 | | | | | | | | |
| SPC | 65 | 73% | 24 | 27% | 0 | 0% | 0 | 0% |
| USF | 58 | 64% | 30 | 33% | 2 | 2% | 0 | 0% |
| 29.11 | | | | | | | | |
| SPC | 54 | 61% | 34 | 38% | 1 | 1% | 0 | 0% |
| USF | 48 | 53% | 42 | 47% | 0 | 0% | 0 | 0% |
| 29.12 | | | | | | | | |
| SPC | 44 | 49% | 42 | 47% | 3 | 3% | 0 | 0% |
| USF | 40 | 44% | 43 | 48% | 6 | 7% | 1 | 1% |
| 29.13 | | | | | | | | |
| SPC | 56 | 63% | 33 | 37% | 0 | 0% | 0 | 0% |
| USF | 60 | 67% | 30 | 33% | 0 | 0% | 0 | 0% |

Question 29 (continued)

| | | | | | | | | |
|-------|----|-----|----|-----|---|----|---|----|
| 29.14 | | | | | | | | |
| SPC | 43 | 48% | 44 | 49% | 2 | 2% | 0 | 0% |
| USF | 44 | 49% | 44 | 49% | 2 | 2% | 0 | 0% |
| 29.15 | | | | | | | | |
| SPC | 61 | 69% | 28 | 32% | 0 | 0% | 0 | 0% |
| USF | 62 | 69% | 28 | 31% | 0 | 0% | 0 | 0% |
| 29.16 | | | | | | | | |
| SPC | 49 | 55% | 40 | 45% | 0 | 0% | 0 | 0% |
| USF | 51 | 57% | 39 | 43% | 0 | 0% | 0 | 0% |
| 29.17 | | | | | | | | |
| SPC | 56 | 63% | 30 | 34% | 3 | 3% | 0 | 0% |
| USF | 57 | 63% | 31 | 34% | 1 | 1% | 1 | 1% |
| 29.18 | | | | | | | | |
| SPC | 55 | 62% | 31 | 35% | 3 | 3% | 0 | 0% |
| USF | 52 | 58% | 35 | 39% | 3 | 3% | 0 | 0% |

APPENDIX H

Comparisons of Means and Variations by College for Questions 28 and 29

Comparison of means and variations by college on sub-items of question 28 comparing overall quality.

(FOR THE WORDING OF EACH ITEM, PLEASE REFER TO PAGE 237 OR TO THE SURVEY IN APPENDIX C)

| Q No. | College | N | Mean | SD | F | p | t | df | p |
|--------------|----------------|----------|-------------|-----------|----------|----------|----------|-----------|----------|
| Q28.1 | 1. USF | 88 | 3.91 | .78 | 1.55 | .21 | 1.17 | 174 | .243 |
| | 2. SPC | 88 | 4.06 | .89 | | | | | |
| Q28.2 | 1. USF | 90 | 4.19 | .79 | .37 | .54 | 1.74 | 177 | .083 |
| | 2. SPC | 89 | 4.39 | .78 | | | | | |
| Q28.3 | 1. USF | 90 | 4.08 | .85 | .12 | .73 | 2.16 | 177 | .032 |
| | 2. SPC | 89 | 4.34 | .75 | | | | | |
| Q28.4 | 1. USF | 89 | 4.47 | .89 | 2.00 | .16 | 1.00 | 176 | .320 |
| | 2. SPC | 89 | 4.33 | 1.05 | | | | | |
| Q28.5 | 1. USF | 90 | 4.31 | .79 | .01 | .92 | .78 | 177 | .435 |
| | 2. SPC | 89 | 4.40 | .80 | | | | | |
| Q28.6 | 1. USF | 90 | 4.21 | 1.00 | .01 | .92 | .19 | 176 | .846 |
| | 2. SPC | 88 | 4.18 | 1.01 | | | | | |
| Q28.7 | 1. USF | 90 | 3.06 | 1.41 | 7.38 | .007 | 4.37 | 177 | .0001 |
| | 2. SPC | 89 | 3.90 | 1.16 | | | | | |

Summary Statistics for Question 28 when addressed in aggregate

| Scale | Mean | SD | Alpha | Number of Questions | Number of Subjects |
|---------------------|-------------|-----------|--------------|----------------------------|---------------------------|
| Educational Quality | 28.79 | 4.90 | .829 | 7 | 174 |

Comparison of means and variations by college on sub-items of question 29 comparing teaching competencies.

NOTE: FOR THE WORDING OF EACH ITEM, PLEASE REFER TO THE SURVEY IN APPENDIX C.

| Q No. | College | N | Mean | SD | F | p | t | df | p | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|----------------|----------|-------------|-----------|----------|----------|----------|-----------|----------|--------|--------|----|------|------|-------|-------|------|-----|------|--------|----|------|------|--------|--------|----|------|------|-------|-------|------|-----|------|--------|----|------|------|--------|--------|----|------|------|-------|-------|------|-----|------|--------|----|------|------|--------|--------|----|------|------|-------|-------|------|-----|------|--------|----|------|------|--------|--------|----|------|------|-------|-------|------|-----|------|--------|----|------|------|--------|--------|----|------|-----|-------|-------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|-------|-------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|-------|-------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|-------|-------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|-------|-------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|-------|-------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|-------|-------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|-------|-------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|------|------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|------|------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|------|------|------|-----|------|--------|----|------|-----|--------|--------|----|------|-----|-----|------|------|
| Q29.1 | 1. USF | 90 | 1.51 | .59 | 3.94 | .049 | 1.68 | 177 | .095 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.37 | .53 | | | | | | Q29.2 | 1. USF | 90 | 1.47 | .50 | 3.09 | .081 | 1.58 | 177 | .117 | 2. SPC | 89 | 1.35 | .50 | Q29.3 | 1. USF | 90 | 1.64 | .57 | .97 | .327 | 1.37 | 177 | .171 | 2. SPC | 89 | 1.53 | .57 | Q29.4 | 1. USF | 90 | 1.23 | .43 | .43 | .514 | .20 | 177 | .839 | 2. SPC | 89 | 1.25 | .48 | Q29.5 | 1. USF | 90 | 1.50 | .64 | 2.01 | .158 | .44 | 177 | .664 | 2. SPC | 89 | 1.46 | .57 | Q29.6 | 1. USF | 89 | 1.21 | .439 | .00 | 1.00 | 0.00 | 177 | 1.00 | 2. SPC | 89 | 1.21 | .439 | Q29.7 | 1. USF | 90 | 1.61 | .59 | 1.46 | .229 | 1.53 | 177 | .129 | 2. SPC | 89 | 1.48 | .52 | Q29.8 | 1. USF | 90 | 1.20 | .40 | .09 | .763 | .15 | 177 | .880 | 2. SPC | 89 | 1.19 | .40 | Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | 2. SPC | 89 | 1.62 | .81 | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 |
| Q29.2 | 1. USF | 90 | 1.47 | .50 | 3.09 | .081 | 1.58 | 177 | .117 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.35 | .50 | | | | | | Q29.3 | 1. USF | 90 | 1.64 | .57 | .97 | .327 | 1.37 | 177 | .171 | 2. SPC | 89 | 1.53 | .57 | Q29.4 | 1. USF | 90 | 1.23 | .43 | .43 | .514 | .20 | 177 | .839 | 2. SPC | 89 | 1.25 | .48 | Q29.5 | 1. USF | 90 | 1.50 | .64 | 2.01 | .158 | .44 | 177 | .664 | 2. SPC | 89 | 1.46 | .57 | Q29.6 | 1. USF | 89 | 1.21 | .439 | .00 | 1.00 | 0.00 | 177 | 1.00 | 2. SPC | 89 | 1.21 | .439 | Q29.7 | 1. USF | 90 | 1.61 | .59 | 1.46 | .229 | 1.53 | 177 | .129 | 2. SPC | 89 | 1.48 | .52 | Q29.8 | 1. USF | 90 | 1.20 | .40 | .09 | .763 | .15 | 177 | .880 | 2. SPC | 89 | 1.19 | .40 | Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | 2. SPC | 89 | 1.62 | .81 | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | |
| Q29.3 | 1. USF | 90 | 1.64 | .57 | .97 | .327 | 1.37 | 177 | .171 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.53 | .57 | | | | | | Q29.4 | 1. USF | 90 | 1.23 | .43 | .43 | .514 | .20 | 177 | .839 | 2. SPC | 89 | 1.25 | .48 | Q29.5 | 1. USF | 90 | 1.50 | .64 | 2.01 | .158 | .44 | 177 | .664 | 2. SPC | 89 | 1.46 | .57 | Q29.6 | 1. USF | 89 | 1.21 | .439 | .00 | 1.00 | 0.00 | 177 | 1.00 | 2. SPC | 89 | 1.21 | .439 | Q29.7 | 1. USF | 90 | 1.61 | .59 | 1.46 | .229 | 1.53 | 177 | .129 | 2. SPC | 89 | 1.48 | .52 | Q29.8 | 1. USF | 90 | 1.20 | .40 | .09 | .763 | .15 | 177 | .880 | 2. SPC | 89 | 1.19 | .40 | Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | 2. SPC | 89 | 1.62 | .81 | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | |
| Q29.4 | 1. USF | 90 | 1.23 | .43 | .43 | .514 | .20 | 177 | .839 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.25 | .48 | | | | | | Q29.5 | 1. USF | 90 | 1.50 | .64 | 2.01 | .158 | .44 | 177 | .664 | 2. SPC | 89 | 1.46 | .57 | Q29.6 | 1. USF | 89 | 1.21 | .439 | .00 | 1.00 | 0.00 | 177 | 1.00 | 2. SPC | 89 | 1.21 | .439 | Q29.7 | 1. USF | 90 | 1.61 | .59 | 1.46 | .229 | 1.53 | 177 | .129 | 2. SPC | 89 | 1.48 | .52 | Q29.8 | 1. USF | 90 | 1.20 | .40 | .09 | .763 | .15 | 177 | .880 | 2. SPC | 89 | 1.19 | .40 | Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | 2. SPC | 89 | 1.62 | .81 | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.5 | 1. USF | 90 | 1.50 | .64 | 2.01 | .158 | .44 | 177 | .664 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.46 | .57 | | | | | | Q29.6 | 1. USF | 89 | 1.21 | .439 | .00 | 1.00 | 0.00 | 177 | 1.00 | 2. SPC | 89 | 1.21 | .439 | Q29.7 | 1. USF | 90 | 1.61 | .59 | 1.46 | .229 | 1.53 | 177 | .129 | 2. SPC | 89 | 1.48 | .52 | Q29.8 | 1. USF | 90 | 1.20 | .40 | .09 | .763 | .15 | 177 | .880 | 2. SPC | 89 | 1.19 | .40 | Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | 2. SPC | 89 | 1.62 | .81 | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.6 | 1. USF | 89 | 1.21 | .439 | .00 | 1.00 | 0.00 | 177 | 1.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.21 | .439 | | | | | | Q29.7 | 1. USF | 90 | 1.61 | .59 | 1.46 | .229 | 1.53 | 177 | .129 | 2. SPC | 89 | 1.48 | .52 | Q29.8 | 1. USF | 90 | 1.20 | .40 | .09 | .763 | .15 | 177 | .880 | 2. SPC | 89 | 1.19 | .40 | Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | 2. SPC | 89 | 1.62 | .81 | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.7 | 1. USF | 90 | 1.61 | .59 | 1.46 | .229 | 1.53 | 177 | .129 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.48 | .52 | | | | | | Q29.8 | 1. USF | 90 | 1.20 | .40 | .09 | .763 | .15 | 177 | .880 | 2. SPC | 89 | 1.19 | .40 | Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | 2. SPC | 89 | 1.62 | .81 | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.8 | 1. USF | 90 | 1.20 | .40 | .09 | .763 | .15 | 177 | .880 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.19 | .40 | | | | | | Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | 2. SPC | 89 | 1.62 | .81 | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.9 | 1. USF | 90 | 1.69 | .65 | 3.54 | .061 | .650 | 177 | .517 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.62 | .81 | | | | | | Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | 2. SPC | 89 | 1.27 | .45 | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.10 | 1. USF | 90 | 1.38 | .53 | 9.09 | .003 | 1.47 | 177 | .143 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.27 | .45 | | | | | | Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | 2. SPC | 89 | 1.40 | .52 | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.11 | 1. USF | 90 | 1.47 | .50 | .182 | .671 | .817 | 177 | .415 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.40 | .52 | | | | | | Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | 2. SPC | 89 | 1.54 | .57 | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.12 | 1. USF | 90 | 1.64 | .66 | 1.04 | .309 | 1.15 | 177 | .254 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.54 | .57 | | | | | | Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | 2. SPC | 89 | 1.37 | .49 | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.13 | 1. USF | 90 | 1.33 | .47 | 1.08 | .301 | .52 | 177 | .602 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.37 | .49 | | | | | | Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | 2. SPC | 89 | 1.54 | .55 | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.14 | 1. USF | 90 | 1.53 | .55 | .0001 | .988. | .07 | 177 | .941 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.54 | .55 | | | | | | Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | 2. SPC | 89 | 1.31 | .48 | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.15 | 1. USF | 90 | 1.31 | .47 | .010 | 920 | .05 | 177 | .960 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.31 | .48 | | | | | | Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | 2. SPC | 89 | 1.45 | .50 | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.16 | 1. USF | 90 | 1.43 | .50 | .18 | .670 | .216 | 177 | .829 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.45 | .50 | | | | | | Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | 2. SPC | 89 | 1.4 | .56 | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.17 | 1. USF | 90 | 1.4 | .58 | .004 | 949 | .053 | 177 | .958 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.4 | .56 | | | | | | Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q29.18 | 1. USF | 90 | 1.46 | .56 | .17 | .683 | .474 | 177 | .636 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2. SPC | 89 | 1.42 | .56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |