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The Effectiveness of the Student Support Service Program on Retention at a Rural
Appalachia Community College

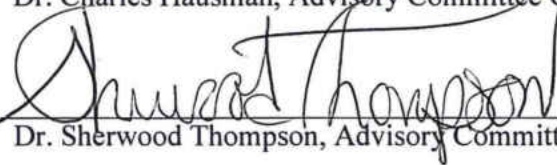
By

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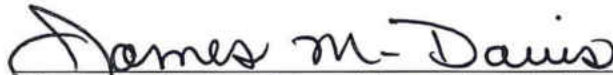
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The Effectiveness of the Student Support Service Program on Retention
at a Rural Appalachia Community College

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May 2017

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Dedication

This dissertation is dedicated to my husband, Buford Hodge, Jr.; my daughter, Crystal Halcomb Burgan; and my late father, Stephen R. Szorcsik, Sr.

Acknowledgements

I would like to thank my husband, Buford. Thank you for your love, support, and encouragement throughout the long process of writing this dissertation. To my daughter, Crystal, thank you for your love, support, and all of your positivity during this time. To my late father, thank you for your unconditional love and for encouraging me to be the best I can be even through all the tough times. Thank you to all my teachers and professors who have taught me to keep up the good work through my educational endeavor, from kindergarten to graduate school. I would like to thank my family and friends who have been supportive through this process. Especially, Shelia Gordon and Carolyn Sundy who have had my back through graduate school and other circumstances that have come up along the way. There are other faculty and staff members at SKCTC who encouraged my work, and I want to thank them for their support. I would also like to thank Dr. Rick Mason thanks for helping me with the data collection for this study. I would like to thank my committee chair, Dr. Charles Hausman for his guidance and encouragement in getting me to create a dissertation of which I could be proud. Finally, would like to extend my deepest appreciation to my doctoral committee members, Dr. Sherwood Thompson and Dr. James Davis for their assistance in completing this dissertation.

Abstract

This study examined the role of TRiO Student Support Services (SSS) programs for students who persist in college. The intent of this study was to determine whether the services provided to participants in SSS helped them achieve higher grade-point averages (GPA), retention rates, and graduation rates. Student Support Services programs are designed to assist first-generation college going, low-income, and students with disabilities with gaining the academic and self-advocacy skills necessary to persist towards an educational goal, 2-year degree completion, transfer to a 4-year university, and/or completion of a certificate program. Services provided to student program participants included: academic tutoring, academic advising, financial and economic counseling, financial aid counseling, transfer counseling, cultural enrichment activities, workshops, mentoring, individualized personal and academic counseling, resources for underrepresented students, and disability services, to eligible students. This study was developed upon the assumption that Student Support Service programs affect the graduation rates, retention rates, and GPA of students. This study did show that Student Support Services participants do better than non-Student Support Services students do throughout their college experience.

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List of Abbreviations and Symbols

Adjusted R Squared	AD
Adult Basic Education	ABE
Americans with Disabilities Act	ADA
Analysis of Covariance	ANCOVA
Analysis of Variance	ANOVA
Beta	β
Career and Transfer Services	CATS
Degree of Freedom	df
Department of Education	DOE
F-ratio.....	F
Free Application for Federal Student Aid.....	FAFSA
Grade-point average.....	GPA
Human Subjects Review Board	HRSB
Individualized Success Plan.....	ISP
Institutional Review Board	IRB
Integrated Postsecondary Education Data Systems	IPEDS
Mean	M
Mid-Term Progress Report	MPR
Money Awareness Program.....	MAP
N-1	r
National Center for Higher Education Management	NCHEMS
no date.....	n.d.
Null Hypothesis	H_0
Number in Sample	N
Pearon's r	R
sig.....	p

sigma.....	sig
Southeast Kentucky Community & Technical College.....	SKCTC
Standard Deviation.....	SD
Standard.....	std
Statistics Package for the Social Sciences.....	SPSS
Student Support Services.....	SSS
The Federal TRIO programs.....	TRiO
t-score.....	t
United States.....	U. S.

Chapter 1

Introduction

Berger, Ramirez, and Lyons (2012) refer to retention as “the ability of an institution to retain a student from admission through graduation” (p. 12). College background characteristics, family income, discrimination, and lack of encouragement are some of the areas where first-generation college students differ from their peers. The lack of family support, when it comes to financial and academic areas, is sometimes the cause of early withdrawals or poor academic performance. These are main areas that affect student retention.

Community colleges are well known for the inspiration and resourcefulness they convey to students in higher education. The concern of student retention in the community college must become a precedence for community college leaders who will commence the exploration on program development essential to create the student retention concepts necessary in the community college setting. Community college leaders improve shared denominators that help individual programs and institutes in verifying whether they are attaining the student retention goals in agreement with student retention concepts that are suitable for community colleges. Student retention has become a significant concern in community colleges unless student retention concerns are addressed in the community college setting.

National Center for Higher Education Management (NCHEMS) Information Center for Higher Education Policymaking and Analysis (n.d.) reports (a) national graduation rates for associate degree seeking students in 2004 was 30%, (3 years) and 55.5% (6 years); (b) national retention rates for associate degree seeking students in 2004 was 58.6% for full-time students and 40.2% for part-time students; (c) 53.2% of freshmen at 2-year colleges return their sophomore year; Remediation: Higher

Education's Bridge to Nowhere (2012) reports (d) 51.7% of students entering a 2-year college enrolled in remediation (p. 6); (e) 64.7% low-income freshman require remediation (p. 6); and (f) 79.9% of low-income students did not complete remediation and associated college-level courses in two years (p. 8).

Retention is an area of particular interest among rural community colleges in Eastern Kentucky. Among two-year colleges, retention rates of college students have been a matter of continued concern for many years due to dropouts. Kentucky (2011) reports (a) graduation rates in Kentucky are very low only 1.8% of associate degree seeking students in 2004 graduate on-time (2 years), 8.5% within 3 years, and 13.5% within 4 years (p. 3); (b) retention rates drop from year to year only 55% in 2 year colleges return to campus in year two and 35.2% in year three (p. 4); (c) 34% of freshman require remediation (p.4).

According to the Integrated Postsecondary Education Data Systems (IPEDS) Data Center, (n.d.) Southeast Kentucky Community & Technical College (SKCTC) graduation rates for associate degree seeking students in 2011 were 26% and retention rates for associate degree seeking students in 2011 were 63% for full-time students and 27% for part-time students. The Student Support Services (SSS) Program at SKCTC had (a) graduation rates in 2009 of 65%; (b) retention rates of 94%; (c) success rates of 81%; (Student Support Services Program: Performance, 2013).

To help understand the SSS program objectives at SKCTC, the objectives from the 2010-2015 grant are: (a) 60% of all participants served by the SSS project will persist from one academic year to the beginning of the next academic year or graduate and/or transfer from a 2-year to a 4-year institution during the academic year; (b) 70% of all enrolled participants served by the SSS project will meet the performance level required to stay in good academic standing at the grantee

institution; (c) 35% of new participants served each year will graduate with an associate's degree or certificate within four years; and (d) 20% of new participants served each year will transfer with an associate's degree or certificate within four years (Gordon, Hodge, & Sundy, 2010).

Colleges offer similar support services that help student retention: academic advising, tutoring, mentoring, personal counseling, first-year programming, early warning alerts, transfer counseling, and financial counseling. These services have already been shown to influence the retention rate of at-risk and low-income students. Drake (2011) revealed the three essential components of retention as tutoring, first-year programming, and academic advising. Pascarella and Terenzini (2005) say a strong relationship between the academic advisor and student plays a very significant role in student retention. Faculty members who teach first-year students play a crucial role in their students' success.

Low-Income/First-Generation

Low-income, first-generation students who attend community colleges have statistically better rates of non-completion when compared to students who are not first-generation or low-income. There was an abundant amount of literature on why low-income, first-generation students are not successful at degree completion; however, literature on why these students do accomplish this goal was skimpy. Specifically, most literature on this subject concentrates on the failure or dropout rate of low-income, first-generation students during their first year of college. There was a little literature focused on the second year, and especially on the continuation of the low-income, first-generation student who starts his or her education at the community college, successfully graduates, and then transfers to a four-year college. Furthermore, there was substantial literature focused on increasing entrance for

students who are low-income, first-generation, but this literature does not reflect that although admission has improved degree completion has not. Furthermore, most of these at-risk students start at a community college; an aspect that also increases the chance that they will not graduate with a four-year degree. Various successful strategies employed at post-secondary institutions to improve college retention focus on academic areas, such as providing tutorial services, others on non-academic areas, such as developing social support groups to increase confidence and commitment.

Statement of Problem

This study examined how the services of Federal TRiO Student Support Services programs could help the fall-to-fall retention, graduation rates, and higher GPAs of low-income, first-generation, and/or disabled participants (students) at SKCTC. Specific information for this inquiry was gathered on how SSS programs have developed and implemented services to help low-income, first-generation, and/or disabled students. These students are considered at-risk of dropping out of college. This study investigated how a SSS programs could have an effect on the retention, graduation rates, and GPA of these students. This dissertation was also important because it shows effective methods to increase retention rates at the post-secondary level. This study was built upon the assumption that TRiO Student Support Service programs can influence the fall-to-fall retention rates, graduation rates, and GPAs of participants.

Significance of Study

This study demonstrates to students the benefits of participating in SSS programs, what is offered, and what students receive when applying for the program. Finally, this study illustrates the benefits of the SSS program and how it helps students stay in college to earn a degree.

Definition of Terms

- Attrition rate: a college's loss of students.
- At-risk students: students who are at-risk of either failing specific courses or failing to graduate, usually caused or influenced by their current home, family, or economic situations. These students are low-income, first-generation, and/or disabled.
- Completion rates: the percentage of students who finish a college program.
- Credential: "is an outcome of student achievement culminating in the awarding of a certificate, diploma, or degree after successful completion of a program" (Davis, 2013, p. 13).
- Cultural Background: life experience as shaped by ethnicity, race, language, religion, sexual orientation, geographical area, socioeconomic status, and gender.
- Disabled: participant who is physically handicapped or academically challenged as defined by the Americans with Disabilities Act (Americans with Disabilities Act, n.d.).
- Disadvantaged: suffering social and/or economic disadvantage in ways that impede access to higher education, including being underprepared academically and being from low-income families and/or households.
- Dropouts: students who leave school and do not return.
- Eligible participants: students who are economically disadvantaged, underrepresented, first-generation students, and students with disabilities.
- First-generation student: a student neither of whose parents or guardians received a bachelor's degree before the enrolled student's 18th birthday, or the first member of the family to attend college.

- Grade-point average (GPA): “total grade points are derived by multiplying the number of credit hours for the course by the number of grade points assigned to the grade earned: A = 4, B = 3, C = 2, D = 1, E = 0” (Enrollment Policies, n.d.).
- Graduation rate: the percentage of first time, first-year undergraduate students who complete their program within 150% of the published time for the program.
- Low-income/first-generation: a participant whose family income falls below the federal income guidelines and neither parent has completed a four-year institution’s program.
- Low-income student: an individual from a family whose taxable income for the preceding year did not exceed 150% of an amount equal to the poverty level determined by using criteria of poverty established by the Bureau of the Census (Student Support Services Program: Legislation, Regulations, and Guidance, 2011).
- Non-SSS eligible student: an individual who has not been active in the SSS Program at SKCTC but is program eligible.
- Participant: a person who has met all eligibility requirements and been chosen to participate in the Student Support Service program.
- Persistence rate: a student’s post-secondary education continuation behavior that leads to graduation.
- Retention rate: the percentage of first time, first-year undergraduate students who continue the next year.
- Student: any student that is attending college.

- Student Success: the ability of a student to support himself or herself in this society after completing college.
- Student Support Services (SSS): one of the TRiO programs, which provides services such as financial counseling, personal counseling, academic advising/course selection, tutoring, as well as transfer counseling, career counseling, cultural activities, social activities, and disability services to eligible undergraduate students (Student Support Services Program: Legislation, Regulations, and Guidance, 2011).
- Transfer rate: the percentage of first time, first-year undergraduate students who transfer to another college within 150% of the published time for the program.
- TRiO: programs created by the Economic Opportunity Act of 1964 (initially just three programs). TRiO began with the Educational Opportunity Act of 1964, the original War on Poverty statute. The programs were funded under Title IV of the Higher Education Act of 1965. This federally funded program was designed to help students overcome class, social, and cultural barriers to higher education. Programs included in TRiO are Upward Bound, Upward Bound Math-Science, Veterans Upward Bound, Talent Search, Student Support Services, Educational Opportunity Centers, and the Ronald McNair Post-Baccalaureate Achievement Program. (Student Support Services Program: Legislation, Regulations, and Guidance, 2011).
- Tutors: staff members or peers who provide one-on-one or group assistance for career or academic course work.

Purpose of Study

The purpose of this research was to determine whether knowledge and utilization of student support program services for example, academic tutoring, academic advising, financial and economic counseling, financial aid counseling, transfer counseling, cultural enrichment activities, workshops, mentoring, individualized personal and academic counseling, resources for underrepresented students, and disability services, to eligible students are effective in determining student success particularly in students obtaining 2-year and 4-year degrees. In addition, investigated whether students who participate in the SSS program at SKCTC attained higher grade-point averages, fall-to-fall retention rates, and graduation rates than do non-SSS eligible students. This study was a quantitative method study that examined how Student Support Services (SSS) programs affect the retention rates of at-risk students. This study examined the impact of SSS programs on low-income, first-generation, and disabled students. The data collected was analyzed by using descriptive and inferential statistics. Data was collected from SKCTC's Institutional Research department along with data from SKCTC's Student Support Services program.

Research Questions

First-generation and/or low-income college students have many barriers they face in order to attend college, persisting from one semester to the next, and successfully obtaining a degree. The following research questions were addressed for the purpose of this study:

1) Are there differences in student success between SSS participants and non-SSS eligible students controlling for first-generation, low-income, and disability? 2) Are SSS program services effective in determining participant success? Student success is

measured by fall-to-fall retention rates, graduation rates, and grade-point averages (GPAs).

Hypotheses

H₀ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by retention rates.

H₁ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by graduation rates.

H₂ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by grade-point averages (GPAs).

H₃ There is no difference in student success as measured by program services provided.

Chapter 2

Literature Review

Economic Factors

Southeast Kentucky Community and Technical College (SKCTC) is located in one of the most remote, underserved and impoverished communities deep in the heart of central Appalachia. Appalachian Kentucky has a long history of poverty and subsistence living that has saturated the social structure and culture, including public education. One of the main poverty issues of Appalachia stems from the fact the employed population makes significantly lower amounts of money than the rest of United States. The service area is located in Kentucky's Appalachian Region, which includes the following counties: Letcher, Bell, and Harlan. Based upon the economic and educational needs of the region, President Barack Obama designated the service area (Bell, Harlan, Letcher) and five other Eastern Kentucky counties in his Promise Zone Initiative. This designation is only one of five in the country. Table 2.1 indicates the increasingly high poverty percentages, high unemployment rates, and low median household incomes as compared to the service area, state, and national levels. These indicators place the service area in the top 100 counties with the lowest per capita income in the United States (Brown, Gordon, Hodge, & Sundy, 2015).

Table 2.1: Economic Indicators

	Letcher	Bell	Harlan	Kentucky	U. S.
Median Household Income	\$29,532	\$25,952	\$26,758	\$42,610	\$53,046
Percent living in poverty	25.7%	33.5%	32.5%	18.6%	14.9%
Unemployment Rate	13.4%	13.3%	13.2%	8.2%	8,1%

Poverty has a direct correlation with the hardships and barriers faced by both traditional and non-traditional college students. The service area maintains one of the lowest levels for educational attainment in the nation. Only 11% of the population has a Bachelor's degree or higher compared to 21.5% in Kentucky (Kentucky Center for Education & Workforce Statistics, n.d.). Due to the low educational attainment and high rates of poverty, 82% of SKCTC total college enrollment is eligible for Student Support Services (SSS). A combination of the consequences of poverty, low educational performance and the lack of a college-going environment contribute to failure in obtaining a post-secondary degree. Among many factors contributing to the student's lack of preparedness, include parent's poor knowledge of college requirements, unavailability of a strong support system, and lack of college readiness skills, which postpone a first-generation student's success (Brown, Gordon, Hodge, & Sundy, 2015).

Retention Overview

The study of college student retention has been part of higher education literature for many years. Several models for student retention and persistence have been developed (Pascarella & Terenzini, 1991 & 2005). The results of research on persistence and retention have guided researchers to highlight the importance of academic and social integration (Astin, 1975; Tinto, 1975, 1993). At higher education institutions in the nation, the interest in student retention and the related research has been recommended by this academic and social integration importance about linking accountability with funding. The students and the institution accrue costs expected to be paid upon degree completion—which many students fail to consider or realize (Astin, 1993; Pascarella & Terenzini, 1991 & 2005; Tinto, 1993).

Student retention and degree completion are critical components in college success and accountability. Retention and graduation rates are being used more often to evaluate institutional performance, and may affect the distribution of funding. Institutional performance in the form of better retention and graduation rates may also be tied to state and federal funds as policymakers seek to increase accountability of higher education institutions.

The first-year of enrollment is crucial for ensuring academic success among college students (Pascarella & Terenzini, 1991; Tinto, 1993). This is especially true for first-generation students whose demographic characteristics place them at-risk for continued academic success (Horn, 1998; Ishitani, 2003). First-generation students are considered disadvantaged and are at a higher risk of dropping out because of their family socioeconomic or cultural background (Ting, 1998). In order for students to be successful, colleges must provide a firm foundation as freshmen transition into the college atmosphere. However, the first academic year tends to be the least satisfactory for students (Astin, 1993; Pascarella & Terenzini, 1991, 2005; Tinto, 1993). The best method to retain freshmen is to implement strong first-year experience programs intended to meet the students' academic, emotional, and social needs (Astin, 1975, 1993; Pascarella & Terenzini, 1980, 2005; Tinto, 1975, 1993).

Retention rates are of extraordinary concern to community colleges. Because of their open-door policy for student acceptance, community colleges are more likely than four-year institutions to attract non-traditional and at-risk students (Stromei, 2000). As a result, the retention level of these students is much lower than of traditional students (Stromei, 2000). In their efforts to retain and graduate non-traditional and at-risk students, community colleges are looking for ways to recognize the factors that contribute to student retention.

While it is regularly acknowledged that, the first-year of college is a vital point for all students, for disadvantaged populations the transition to college can be particularly challenging. The U. S. Department of Education's Beginning Postsecondary Study examined secondary experiences and outcomes of students who entered higher education in 1995-1996 and found that across all types of institutions, first-generation and low-income college students were almost four times more likely to leave college after the first-year than students who had neither of these factors (Wine, Heuer, Link, Whitmore, & Francis, 2001). Successful transition to post-secondary education is key—60% of first-generation, low-income students who leave higher education without attaining a degree do so after the first-year (Tinto, 1993). Numerous studies (Astin, 1975, 1984; Pascarella & Terenzini 1991; Tinto, 1975, 1993) have been conducted to determine what institutions of higher education can do to increase student success, thereby increasing retention. Tinto (2004) stated,

The federal government should work with states to develop a system to monitor student progress and institutional performance over time. This new tracking system must be sensitive to the diversity of institutions and institutional missions. Data or findings should be reported annually in a format that is readily accessible and user-friendly. (p. 11)

Background of the U. S. Department of Education Student Support Services Programs

TRiO programs are programs that were created by the Economic Opportunity Act of 1964, the original War on Poverty statute. The programs are funded under Title IV of the Higher Education Act of 1965. These federally funded program were designed to help students overcome class, social, and cultural barriers to higher education. Programs included in TRiO are Upward Bound, Upward Bound Math-

Science, Veterans Upward Bound, Talent Search, Student Support Services (SSS), Educational Opportunity Centers, and the Ronald McNair Post-Baccalaureate Achievement Program (Student Support Services Program: Legislation, Regulations, and Guidance, 2011).

Through a grant competition, funds are awarded to institutions of higher education to provide opportunities for academic development, assist students with basic college requirements, and to motivate students toward the successful completion of their post-secondary education (Student Support Services Program: Program Home Page, 2014). Student Support Services are one of the TRiO programs, which provides services such as financial counseling, personal counseling, academic advising/course selection, tutoring, as well as transfer counseling, career counseling, cultural activities, social activities, and disability services to eligible undergraduate students (Student Support Services Program: Legislation, Regulations, and Guidance, 2011).

Several Eastern Kentucky community colleges' house federally funded SSS programs in an effort to retain and graduate traditional and non-traditional, low-income, first-generation, and/or disabled students. "The purpose of the...SSS program is to increase the number of disadvantaged low-income college students, first-generation college students, and college students with disabilities in the United States who successfully complete a program of study at the post-secondary level" (Student Support Services Program: Frequently Asked Questions, 2011, para. 2). The SSS program specifically focuses on the retention and graduation rates of these students (Student Support Services Program: Program Home Page, 2014, para. 1). According to the U. S. Department of Education,

To receive assistance, students must be enrolled or accepted for enrollment in a program of post-secondary education at a grantee institution. Low-income students who are first-generation college students and students with disabilities evidencing academic need are eligible to participate in SSS projects [programs]. Two-thirds of the participants in any SSS project [program] must be either disabled or potential first-generation college students from low-income families. One-third of the disabled participants must also be low-income students. (Student Support Services Program: Eligibility, 2009, para. 2)

Program Services

Program Services required by the U. S. Department of Education are academic tutoring, academic advising/course selection, financial and economic literacy, financial counseling, supplemental grant aid, transfer counseling. Additional program services that may be provided by SSS programs are cultural enrichment activities, workshops, mentoring, individualized counseling (career, personal, academic), disability services, programs & activities for underrepresented students in foster care, homeless youth, ESL, and other disconnected students (Student Support Services Program: Legislation, Regulations, and Guidance, 2011).

Furthermore, current participants receiving Federal Pell Grants can be provided with extra grant aid (Student Support Services Program: Eligibility, 2009). The following is a review of the literature describing the possible impact of each service provided by the program.

Academic Tutoring

Many college students are underprepared especially in rural areas of the nation. Tutorial services then become a major role for at-risk students (Astin, 1993;

Tinto, 2004; Pascarella and Terenzini, 2005). These services are the most frequently used in college (Henry, 2000). “Community colleges have a successful history in the area of developmental and remedial education” (Wild & Ebbers, 2002) which support and enhance student retention initiatives relating to tutoring programs and supplemental instruction. Tutoring is beneficial to student in developmental classes (Andrepoint-Warren 2005; Bahr, 2008; Banrey, 2008). Gibson (2003) provides data on participants and non-SSS eligible students seeking tutoring services. Whereas more than one in three non-SSS eligible students sought academic assistance (38%), at 65%, TRiO participants exceeded the tutorial participation level of non-SSS eligible students by 27 percentage points, a statistically significantly difference. According to Gibson (2003), tutorial services contribute to TRiO participants and non-SSS eligible students persisting in college at similar levels (Astin, 1984; Henry, 2000; Tinto, 2004; Seidman, 2012).

Academic tutoring is one technique that at-risk students can acquire help to increase their educational performance. Researchers have shown that tutoring programs increase academic achievement by assisting students with actual class assignments and teaching different approaches that students can generalize to additional academic (Kane, Beals, Valeau, & Johnson, 2004). The perception of academic tutoring has been applied to all ages, ranging from elementary school to post-baccalaureate education. In most instances, students who attend regular sessions of tutoring experienced encouraging results. One-to-one tutoring has positive effects on students’ achievement. In a related study, Dennison (2000) implemented a program in which upper class students tutored and mentored lower class students, and results were beneficial. This study examined the effect tutoring services have on student grade-point averages, fall-to-fall retention, and graduation rates.

The SSS program at Southeast Kentucky Community & Technical College (SKCTC) provides the following tutorial services. The Academic Coordinator, Language and Math Skills Specialists, and Peer Tutors provide and promote tutoring services. The Language Skills Specialist works closely with faculty to improve participant retention in developmental reading and writing classes, English, and online courses. Due to increased online courses, the Language Skills Specialist serves as the Distance Learning Liaison to monitor participants' progress. The Math Skills Specialist tutors math and science courses to help increase student retention in these classes. The Academic Coordinator teaches a tutor training course, and tutors apply the knowledge gained in their daily tutorial sessions. In addition, the Academic Coordinator works with peer tutors to devise a plan geared to increase retention and achievement for each participant with tutoring needs (Gordon, Hodge, & Sundy, 2010).

Academic Advising/Course Selection

This research focused on the many of the services provided by the SSS program nationally. Academic advising/course selection is the most common service offered by college campuses. Some student enters college with specific career goals; however, many do not have any idea of what they want to accomplish. Many disadvantaged students are discouraged from ambitious academic goals for lesser goals because of their status in society (Tintio, 1975; Tinto, 1993; Astin, 1984; Bahr, 2008; Seidman, 2012) making advising very important to student success (Tintio, 1975, 1993; Astin, 1993; Wild & Ebbers, 2002; Pascarella and Terenzini, 2005; Zhang, Chan, Hale, & Kirshstein, 2005; Bahr, 2008; Seidman, 2012). Providing adequate advising (Wild & Ebbers, 2002) when entering college makes many students not dropout after the first semester or year, especially, if the student has an

undecided major. Pascarella and Terenzini (2005) suggest advising is actively beneficial to students' attainment.

Frequently, at-risk students do not understand what their academic goals would have been like without academic advisors. At-risk students, like all students, need advisement in order to become academically and socially integrated into post-secondary education (Tinto, 1975). Student Support Services programs were created, in part, to address the extraordinary necessities of at-risk students and to offer direction guiding them to receiving a four-year degree (Thayer, 2000). It is assumed that SSS helps students persist in college because the advising takes into account a complete outlook of the student, covering financial aid, career concerns, private problems, and transfer counseling (Thayer, 2000).

Program staff provide intrusive bi-weekly advising sessions with participants to plan curriculum and meet requirements for degree and transfer. Priority pre-registration is provided to help participants obtain a course schedule conducive to their academic and personal needs. Staff complete individualized degree audits and monitor Starfish for adjustments to academic plans. (Gordon, Hodge, & Sundry, 2010).

Financial and Economic Literacy

Student Support Services program staff conduct individualized counseling sessions for participants through the Money Awareness Program (MAP). The MAP provides assistance with basic money management skills, including college, financial, and personal, living within a budget, handling credit and debt, choosing and maintaining a checking and savings account, exploring investment options, paying on installment loans, and renting and purchasing a home. To aid in retention, financial planning for post-secondary education is given special attention by providing

workshops and counseling on the dangers and pitfalls of student loan dependence and encouraging efficient use of grants, work-study, and scholarship opportunities (Gordon, Hodge, & Sundy, 2010).

Financial Aid Counseling

Participants need adequate financial assistance to persist and graduate; therefore, SSS program staff help participants locate loan forgiveness programs and complete the Free Application for Federal Student Aid (FAFSA) application, other federal and state grants, and public and private scholarship applications. Our program provides supplemental grant aid funds to eligible program participants. The grant aid plays a major role in the retention of students with unmet financial need. In addition, special attention is given to the dangers and pitfalls of student loan dependence and encourage efficient use of grants, work-study, and scholarship opportunities (Gordon, Hodge, & Sundy, 2010).

Supplemental Grant Aid

For SSS participants not receiving adequate financial assistance, the program allocates approximately 10% of its funding to award grant aid, which program staff have named the Academic Achievers' Award. The name given to SKCTC's SSS grant aid award program stems from our philosophy of encouraging participants to reach their goals through utilization of program services. Program staff distribute and collect completed grant aid applications, which are submitted to SKCTC's financial aid office for verification of Pell eligibility and documentation of unmet financial need. Program staff rank each student according to program services used, unmet financial need, and grade-point averages. Participants with the highest rank are awarded the grant aid, which is distributed through the business office. The additional

grant aid supports retention of participants who are most worthy and needy (Gordon, Hodge, & Sundy, 2010).

Transfer Counseling

Transfer is a key component of the program's retention plan since students with specific transfer plans generally have a higher rate of retention. Program staff make certain all participants are aware of transfer opportunities and procedures by providing information on four-year institutions through traditional print materials, online information, mass email, text alerts, and structured campus visits. Twice each semester, a particular college is highlighted using photographs and brochures to create a "Focus on Transferring" display. In addition, structured campus visits are organized to four-year institutions to broaden awareness of the unique differences of each institution. Staff identify loan forgiveness programs, other financial resources, and writes letters of recommendation for admission and scholarship applications.

Student Support Services program staff at SKCTC complete individualized transfer plan, which includes successful submission of applications for admission, financial aid, housing, and scholarships to ensure that participants transfer with an associate's degree or certificate within four years and to help foster a seamless transition for participants transferring to other institutions. Program staff work with the SKCTC Career and Transfer Services (CATS) Center to coordinate and publicize visits from college and university recruiters (Gordon, Hodge, & Sundy, 2010).

Cultural Enrichment Activities

Participants need an accepting and supportive campus climate. Lectures and workshops are planned that addresses the themes of understanding racial or ethnic differences and accepting people with disabilities. SSS program staff coordinate and promote special programs each year to celebrate Black History, National Women's

History, and Earth Day. Staff serve as advisors for student organizations and encourage participants to become involved in campus activities. To advocate for participants, staff serve on key committees within the college community, attend division meetings, and serve on system wide committees. SSS staff work with the Performing Arts Series Director to ensure that diverse performances are offered and that participants are provided with tickets at no cost. Finally, the Counselor plans an annual cultural enrichment trip. Participation in these activities help broaden participants' awareness of differences and diversity. Many of these low-income, first-generation students have never been out of the county (Gordon, Hodge, & Sundy, 2010).

Workshops

Student Support Services program staff create face-to-face and online workshops each semester to develop participants' academic and life skills, aid in personal growth by addressing non-cognitive factors such as academic mindset, perseverance, social and emotional skills and learning strategies; increase financial and economic literacy, communicate financial aid resource availability, and assist in career and transfer college selection. The workshop brochure is distributed each semester to all participants and faculty. In addition, staff proactively promote workshop times and locations by sending texts, emails, and social media alerts (Gordon, Hodge, & Sundy, 2010).

Mentoring

Mentors are a crucial resource for at-risk students to succeed in college. Mentors could ultimately help them grasp their full potential. Mentoring helps students who retain the institutional cultural capital and social capital that is satisfied in higher education. Institutional cultural capital refers to the information and

knowledge that individuals use to decipher, interpret, comprehend, and navigate the culture of the school. Social capital is defined as obtaining information, resources, knowledge, and skills through individuals' social relationships and social networks. Higher Education researchers have discovered that college students participating in formal mentoring relationships reported an increased satisfaction with college services and in academic persistence, resulting in an overall increase in student retention (Rhodes & DuBois, 2008).

Creating mentoring relationships with participants is a focus of Student Support Services programs. Program staff support the development of relationships through collaboration with faculty, staff, peers, and others. When possible, students are assigned a mentor during their first semester of enrollment at the college. The mentoring relationships that are started within the SSS program being considered and whether they are successful at retaining students throughout their post-secondary educational studies are assessed (Gordon, Hodge, & Sundry, 2010).

Individualized Counseling Services

Career Counseling Participants with clear career paths are more likely to be successful in reaching their goals. Staff contact participants that are undecided and help those select majors and careers that suit their aptitudes and meet the needs of society. Participants are encouraged to consider job market trends and job banks when selecting a career.

Program staff provide participants with career counseling and resume development, individualized counseling for students with undeclared majors, course selection to meet requirements at transfer institutions. Program staff utilize the Focus career software, Occupational Outlook Handbook, O*NET (O*NET), and other

resources to provide information on career opportunities and job outlook information (Gordon, Hodge, & Sundy, 2010).

Personal Counseling Suh, Suh, and Houston (2007) concluded research associated to student persistence in secondary education; they discovered that at-risk students who are successfully graduated most frequently have advising and counseling services accessible to offer necessary support. Their results support the necessity for these services to be offered extra to what happens in a normal educational situation. It was also found that when additional services, such as counseling, are provided, student academic success increases. This study examined the effectiveness of the SSS program increasing the achievement of at-risk students by providing these students with counseling service.

Personal factors have an impact on participants' retention rate and academic success. To address these needs, the Counselor offers personal counseling in a confidential environment and addresses the areas of relationships, families, finances, physical and mental health, and others (Gordon, Hodge, & Sundy, 2010).

Academic Counseling Program staff are responsible for monitoring and documenting the use of program services by participants and contacting those who have not used any services by mid-term. All students are asked to meet with each of their instructors to complete a mid-term progress report (MPR). In addition, program staff evaluate participants' Individualized Success Plan (ISP) goals by completing the ISP Progress Review and retrieving information from program services databases and student files. During this review, a comprehensive evaluation of participants' progress is conducted utilizing degree audit checklists, academic transcripts, and student counseling sessions. Staff provide academic counseling utilizing a variety of

information resources to monitor participant progress including Starfish notifications and mid-term progress reports (Gordon, Hodge, & Sundy, 2010).

Disabilities Services

The Academic Coordinator works closely with SKCTC Disability Coordinator to provide disability accommodations and refers participants to the Kentucky Office of Vocational Rehabilitation and Department for the Blind to obtain special equipment and textbooks. The Academic Coordinator assists program participants with undocumented disabilities by utilizing student self-report and faculty referrals to initiate testing through the Kentucky Office of Vocational Rehabilitation. Disabled participants are referred to the Adult Basic Education (ABE) Center for additional testing utilizing PowerPath assessment, which focuses on how a person learns and provides information on learning style. Assessment results are used to provide more precise disability accommodations.

The Academic Coordinator works closely with participants who have documented disabilities to ensure they are provided the needed accommodations, sends an accommodation request to all of the participant's instructors, and consults with faculty to arrange test proctoring, readers, and scribes when needed. These services increase retention and achievement of participants with disabilities (Gordon, Hodge, & Sundy, 2010).

Underrepresented students

The SSS program collaborates with resources on campus and in the community to meet the needs of participants with limited English proficiency, students who are homeless children and youth, students who are in foster care or aging out of the foster care system, and other disconnected students (Gordon, Hodge, & Sundy, 2010).

Front-loading

Tinto (1993) investigated the reasons that students drop out of college and found that the lowest retention rates were among disadvantaged students (minorities and persons of lower socio-economic status). Tinto also identified a direct correlation between students' first-year experiences and their decisions to drop out, and determined that all aspects of the first-year experience shaped retention. Front-loading includes anticipating and identifying potential student problems and needs—both academic and social—and implementing appropriate interventions as early as possible. Front-loading is most successful when institutional administrators coordinate the work of faculty who teach freshman courses with efforts of those in orientation, admissions, counseling, advising, etc. (Tinto, 1993). These findings support the practice of front-loading which links student success to early intervention, thereby increasing the likelihood of retention (Astin, 1984, 1993; Tinto, 1993; Haycock, 2006).

The importance of both front-loading and attending to certain at-risk student populations is especially relevant to this study involving SSS participants. SSS programs have used the front-loading approach since TRiO's inception (Zhang, Chan, Hale, & Kirshstein, 2005) to help retain college students from low-income families, first-generation, and students with disabilities.

Summary

Higher education institutions have addressed and continue to address the issue of student retention for many years to come. Scholars recognize that students have different individualities, different backgrounds, and different levels of obligation to their college experience. Tinto (1993) concluded that students' academic and social

assimilation into the college atmosphere were the most substantial predictors of whether students were successful in college.

Students' withdrawal from college can rarely be credited to just one variable; instead, withdrawal are influenced by an interaction of many variables. Scholars also have shown that first-generation students are more likely to need academic support services, such as the TRIO programs, to help them succeed. However, an extensive review of the literature suggests that little, if any, information exists that pinpoints which services, or combination of services, most accurately predict TRIO students' outcomes, such as GPA, retention, and, eventually, graduation.

Student Support Services programs were created to offer individuals from economically and culturally disadvantaged backgrounds with support services to enable them to successfully complete post-secondary degree programs. The need for this program and other TRIO programs continues to exist today, as proven by several indicators, including (a) poverty rates, (b) economic disparity, (c) educational achievement and its affiliation to income, (d) post-secondary registration rates, and (e) college retention. Trends in these indicators, such as growing poverty levels and a strong relationship between education and income, suggest there are continuing, perhaps increasing, need to provide services that foster equal educational chance for all students (Henry, 2000).

Chapter 3

Methodology

Purpose of the Study

This study was a quantitative method study that examined how Student Support Services (SSS) programs affect the fall-to-fall retention rates, graduation rates, and grade-point averages (GPAs) of at-risk students. This study examined the impact of SSS programs on low-income, first-generation, and disabled students. This study also examined how the qualities of Federal TRiO Student Support Services Program services help the fall-to-fall retention rates, graduation rates, and GPAs of low-income and/or first-generation participants (students) at Southeast Kentucky Community & Technical College (SKCTC). Specific information for this inquiry was gathered on how SSS programs have developed and implemented services to help low-income and/or first-generation students. These students are considered at-risk of dropping out of college. This study investigated how a SSS program affects the retention rates, graduation rates, and GPAs of these students. This study was also important because it could be an effective method to increase retention and graduation rates at the post-secondary level. This study was built upon the hypothesis that TRiO Student Support Service programs positively influence the fall-to-fall retention rates, graduation rates, and GPAs of participants.

Context of Study

The Student Support Services program at Southeast Kentucky Community & Technical College is a Federal program designed to prepare and assist first-generation college going, low-income, and disabled students with gaining the academic skills necessary to obtain a 2-year college degree, complete a certificate program, and/or transfer to a four university. Student Support Service programs provide

comprehensive student services with the goal of student retention, certificate completion, transfer to a 4-year university, and persistence to graduation as the core focus.

Services include academic tutoring, academic advising, financial and economic counseling, financial aid counseling, transfer counseling, cultural enrichment activities, workshops, mentoring, individualized personal and academic counseling, resources for underrepresented students, and disability services, to eligible students. Student Support Services is a program funded by the United States Department of Education (DOE) and is designed to serve 140 students per academic year. An annual performance report is submitted annually to the DOE, and the performance is measured by the number of students who gain a 2-year degree, certificate of completion, or transfer to a 4-year university. The funding for this program is provided in five-year cycles with a program review at the end of each academic year.

Research Sample

This inquiry focused on a rural Appalachian community college in Eastern Kentucky. This institution was a convenience sample since it is where the researcher is employed and where retention rates have become a major concern. Due to these concerns, the motivation for this study at this community college was to show how this college could retain more students. Therefore, the participants in this study included former and present Student Support Service program participants, as well as former and present students who attended classes at one of SKCTC campuses who have not participated in SSS. These students meet the criteria of being full-time, first-generation, low-income, and/or disabled.

The research sample was collected using data between Fall 2007 and Fall 2012. As shown in Table 3.1, the sample contained 946 students of which 277 were Student Support Services participants and 669 were non-SSS eligible students.

Table 3.1 Participant in Student Support Service Program

		Frequency	Valid Percent
Valid	No	669	70.7
	Yes	277	29.3
	Total	946	100.0

Gender by SSS Participation

A cross tabulation of students was created to examine the gender of students. As shown in Table 3.2, 946 students were identified – 591 (62.5%) students were female and 355 (37.5%) students were male. The number of females in both SSS participants 201 (72.6%) and non-SSS eligible students 390 (27.4%) were significantly greater than the number of males in SSS participants 76 (58.3%) and non-SSS eligible students 279 (41.7%).

Table 3.2 Gender * Student Support Services Cross Tabulation

			Student Support Services		Total
			No	Yes	
Gender	Female	Count	390	201	591
		% within Student Support Services	58.3%	72.6%	62.5%
	Male	Count	279	76	355
		% within Student Support Services	41.7%	27.4%	37.5%
Total	Count		669	277	946
	% within Student Support Services		100.0%	100.0%	100.0%

Variables and Measures

Covariates

Three covariates were used in this study for the research question—low-income status, first-generation status, and disability. Students were coded low-income status as determined by federal Pell grant eligibility, and were coded as 0 = Not low-income, 1 = low-income; first-generation status—neither parent has bachelor’s degree were coded as 0 = Not first-generation, 1 = first-generation, and disability status—student has documented disability were coded as 0 = Not disabled, 1 = disabled. The covariates were chosen based on the effect they have on retention.

First-Generation by SSS Participation

A cross tabulation of students was created to examine the first-generation status of students. As shown in Table 3.3, 946 students were identified – 763 (80.7%) students were first-generation and 183 (19.3%) students were not. The number of first-generation students in both SSS participants 265 (95.7%) and non-SSS eligible

students 498 (74.4%) were significantly greater than the number of not first-generation in SSS participants 12 (4.3%) and non-SSS eligible students 171 (25.6%).

Table 3.3 First-Generation * Student Support Services Cross Tabulation

			Student Support Services		Total
			No	Yes	
First-Generation	No	Count	171	12	183
		% within Student Support Services	25.6%	4.3%	19.3%
	Yes	Count	498	265	763
		% within Student Support Services	74.4%	95.7%	80.7%
Total		Count	669	277	946
		% within Student Support Services	100.0%	100.0%	100.0%

Low-income by SSS Participation

A cross tabulation of students was created to examine the low-income status of students. As shown in Table 3.4, 946 students were identified – 840 (88.8%) students were low-income and 106 (11.2%) students were not. The number of low-income students in both SSS participants 210 (75.8%) and non-SSS eligible students 630 (94.2%) were significantly greater than the number of not low-income in SSS participants 67 (24.2%) and non-SSS eligible students 39 (5.8%).

Table 3.4 Low-Income * Student Support Services Cross Tabulation

			Student Support Services		Total
			No	Yes	
Low-Income	No	Count	39	67	106
		% within Student Support Services	5.8%	24.2%	11.2%
	Yes	Count	630	210	840
		% within Student Support Services	94.2%	75.8%	88.8%
Total		Count	669	277	946
		% within Student Support Services	100.0%	100.0%	100.0%

Disability by SSS Participation

A cross tabulation of students was created to examine the disability of students. As shown in Table 3.5, 946 students were identified – 62 (6.6%) students had disabilities and 884 (93.4%) did not. The number of disabled students not in both SSS participants 255 (92.1%) and non-SSS eligible students 629 (94%) were significantly greater than the number of disabled students in SSS participants 22 (7.9%) and non-SSS eligible students 40 (6%).

Table 3.5 Disability * Student Support Services Cross Tabulation

			Student Support Services		Total
			No	Yes	
Disability	No	Count	629	255	884
		% within Student Support Services	94.0%	92.1%	93.4%
	Yes	Count	40	22	62
		% within Student Support Services	6.0%	7.9%	6.6%
Total		Count	669	277	946
		% within Student Support Services	100.0%	100.0%	100.0%

Dependent Variables

The dependent variables measured for this study are indicators of academic success in the SSS program and include grade-point average were coded on a 4 point scale, retention rates (fall-to-fall status) were coded as retained = 1 and not retained = 0, and graduation rates (credentials obtained within four years) were coded as graduated = 1 and not graduated = 0.

Independent Variables

The independent variables that were utilized for this study included the following: SSS participation (0) or non-SSS participation (1) in the Student Support Services Program.

Data Collection

Data collected during the research study is in the form of document analysis. Document analysis was collected from the Office of Institutional Research and Effectiveness at SKCTC, who shared the database content electronically with non-

identifiable student information along with archival data that were collected from SKCTC's Student Support Services (SSS) program database, which houses data on all students who have participated in the SSS programs offered. By using this process, the researcher maintained the confidentiality of all students and protected against researcher bias. To protect all data, the database was kept on a secured computer that can only be accessed by the researcher. All precautions were taken to protect the identity of the students. The researcher obtained approval from the SSS Director and the Human Subjects Review Board (HRSB) (Appendix B) to acquire access to the databases.

Document analysis included all participants' gender, graduation status, GPA, and retention rates (fall-to-fall status). All data were imported into SPSS for analysis, where the researcher compared the results between SSS participants and non-SSS eligible students using Analysis of Covariance (ANCOVA).

Limitations of Study

This study was limited to college students who were enrolled at SKCTC. The study focused on SSS participants and non-SSS eligible students. The location and size of the study limits the generalizability of the study. The study investigated the factors that contribute to retention rates of these students. The conclusion of this study will be subject to limitations enforced by the analysis and accuracy of the data.

Data Analysis

The statistical analysis that was used to investigate the primary research question was an ANCOVA using the Statistics Package for the Social Sciences (SPSS). The first null hypothesis was that fall-to-fall retention rates will not be affected by participation in the Student Support Services Program at SKCTC. The first alternate hypothesis was that participation in the SSS program does affect fall-to-

fall retention rates. The second null hypothesis was that graduation rates will not be affected by participation in the SSS program. The second alternate hypothesis was that participation in the SSS program does affect graduation rates. The third null hypothesis was that grade-point averages (GPAs) will not be affected by participation in the SSS program. The third alternate hypothesis was that participation in the SSS program does affect GPAs. The fourth null hypothesis was that participant success will not be affected by the use of program services provided SSS. The fourth alternate hypothesis was that the use of SSS program services does affect student success.

This study also utilized descriptive and inferential statistics to provide an understanding of the impact that participation in a SSS program has on student success. Descriptive data about the sample included important information such as gender, low-income status, first-generation, and disability. Indicators of student success included GPA, graduation, retention, and credentials earned.

A backup copy of the all data was made on a regular basis. The findings from the data in this study can be applied to helping the retention rates of all college students on SKCTC campuses.

Role of Researcher

In this study, meaning from the data collection was made through original knowledge and ideas due to the researcher's own experiences as a professional who works with SSS students. The tasks included the review of the literature, the development of the research design, the collection of data, the performance of the analysis, the presentation of data, and addressing all other matters concerning this study.

As an experienced professional in federal TRiO programs and a doctoral candidate, the researcher met all the professional and academic qualifications

necessary to conduct this study. The researcher was a former SSS participant and employee who has worked with TRiO programs for over 15 years, and has received extensive training in program management, regulations, evaluation, proposal development, and budget management by the U. S. Department of Education. A strong obligation to the operation of the college and to the populace is a requirement to be effective in helping a diverse population to persist at the institution.

Understanding the needs of SSS participants is essential to enhancing services and to preparing, arranging, and presenting new services that help the students reach their educational goals.

Benefits of the Study

This study examined and compared how academic preparation has been connected to the students' possibility of dropping out of college before finishing a degree. Understanding their impact on persistence may disclose valuable information. The outcomes connected to academic preparation and family background characteristics, if assessed for their relation to persistence, aid institutions in the design and implementation of proper policies to retain students. It was also important to observe the influence certain program services have on students' decision to persist or dropout.

Research Questions

1) Are there differences in student success between SSS participants and non-SSS eligible students controlling for first-generation, low-income, and disability? 2) Are SSS program services effective in determining participant success? Student success is measured by retention rates, graduation rates, and grade-point averages (GPAs).

Hypotheses

H₀ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by fall-to-fall retention rates.

H₁ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by graduation rates.

H₂ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by grade-point averages (GPAs).

H₃ There is no difference in student success as measured by program services provided.

Summary

This study examined the participants (students) academic preparation and background material of students with the intent to ascertain if their connection to persistence is adequate to designate them as academically successful. If a participant of SSS programs utilized the services offered through the program, the participant has a much better chance to remain in college. These services include workshops, tutorial services, academic counseling, personal counseling, financial counseling, career counseling, and transfer counseling. Many of these students are low-income, first-generation, and/or disabled and have never traveled far from home. Student Support Service programs also offered services such as cultural enrichment activities and social activities. Disability services are offered to those who are eligible. The overall question guiding this study was whether student persistence can be correctly predicted from knowledge of the students' family background and whether persistence was improved among students that participate in an organized set of activities such as those offered by Student Support Services.

Chapter 4

Results

A cross tabulation of students was created to examine the fall-to-fall retention rate of students by gender, first-generation, low-income, and disability. Table 4.1 shows that out of the 946 students used in the research sample 257 (27.2%) were retained and 689 (72.8%) were not.

Fall-to-Fall Retention Rate by Gender

As shown in Table 4.1, 591 students were female and 355 students were male. The fall-to-fall retention rate in females 184 (31.1%) was significantly greater than for the number of males in SSS participants 73 (20.6%).

Table 4.1 Gender * FALL-TO-FALL (RETENTION) Cross Tabulation

			FALL-TO-FALL (RETENTION)		Total
			No	Yes	
Gender	Female	Count	407	184	591
		% within Gender	68.9%	31.1%	100.0%
	Male	Count	282	73	355
		% within Gender	79.4%	20.6%	100.0%
Total	Count		689	257	946
	% within Gender		72.8%	27.2%	100.0%

Fall-to-Fall Retention Rate by First-Generation

As shown in Table 4.2, 946 students were identified – 763 students were first-generation and 183 students were not. The fall-to-fall retention rate of students who were first-generation 247 (32.4%) was significantly greater than the number of students not first-generation SSS participants 10 (5.5%) who were retained.

Table 4.2 First-Generation * FALL-TO-FALL (RETENTION) Cross Tabulation

			FALL-TO-FALL (RETENTION)		Total
			No	Yes	
First-Generation	No	Count	173	10	183
		% within First-Generation	94.5%	5.5%	100.0%
	Yes	Count	516	247	763
		% within First-Generation	67.6%	32.4%	100.0%
Total		Count	689	257	946
		% within First-Generation	72.8%	27.2%	100.0%

Fall-to-Fall Retention Rate by Low-Income

As shown in Table 4.3, 946 students were identified as low-income; 840 students were low-income and 106 students were not. The fall-to-fall retention rate of students who were low-income in was 201 (23.9%), which was significantly greater than the number of students non-SSS low-income 56 (52.8%) who were retained.

Table 4.3 Low-Income * FALL-TO-FALL (RETENTION) Cross Tabulation

			FALL-TO-FALL (RETENTION)		Total
			No	Yes	
Low-Income	No	Count	50	56	106
		% within Low-Income	47.2%	52.8%	100.0%
	Yes	Count	639	201	840
		% within Low-Income	76.1%	23.9%	100.0%
Total		Count	689	257	946
		% within Low-Income	72.8%	27.2%	100.0%

Fall-to-Fall Retention Rate by Disability

As shown in Table 4.4, of the 946 students who were identified, 62 students had a disability and 884 students did not. The fall-to-fall retention rate of students who were disabled was 17 (27.4%) and which was almost identical to the percentage of non-disabled retained students 240 (27.1).

Table 4.4 Disability * FALL-TO-FALL (RETENTION) Cross Tabulation

			FALL-TO-FALL (RETENTION)		Total
			No	Yes	
Disability	No	Count	644	240	884
		% within Disability	72.9%	27.1%	100.0%
	Yes	Count	45	17	62
		% within Disability	72.6%	27.4%	100.0%
Total		Count	689	257	946
		% within Disability	72.8%	27.2%	100.0%

Cross tabulations of students were created to examine the graduation rate of students by gender, first-generation, low-income, and disability. Table 4.5 shows that out of the 946 students used in the research sample 251 (26.5%) graduated and 695 (73.5%) did not.

Graduation Rate by Gender

As shown in Table 4.5, 591 students were female and 355 students were male. The graduation rate for females was 174 (29.4%) which was significantly higher than the rate for males 77 (21.7%).

Table 4.5 Gender * Graduated Cross Tabulation

			Graduated		Total
			No	Yes	
Gender	Female	Count	417	174	591
		% within Gender	70.6%	29.4%	100.0%
	Male	Count	278	77	355
		% within Gender	78.3%	21.7%	100.0%
Total	Count		695	251	946
	% within Gender		73.5%	26.5%	100.0%

Graduation Rate by First-Generation

As shown in Table 4.6, 946 students were identified – 763 students were first-generation and 183 students were not. The graduation rate of students who were first-generation was 243 (31.8%) which was significantly greater than the percentage of graduates who were not first-generation 8 (4.4%).

Table 4.6 First-Generation * Graduated Cross Tabulation

			Graduated		Total
			No	Yes	
First-Generation	No	Count	175	8	183
		% within First-Generation	95.6%	4.4%	100.0%
	Yes	Count	520	243	763
		% within First-Generation	68.2%	31.8%	100.0%
Total	Count		695	251	946
	% within First-Generation		73.5%	26.5%	100.0%

Graduation Rate by Low-Income

As shown in Table 4.7, 946 students were identified – 840 students were low-income and 106 students were not. The graduation rate of students who were low-income was 197 (23.5%), while non-SSS low-income 54 (50.9%) graduated at over double the rate.

Table 4.7 Low-Income * Graduated Cross Tabulation

			Graduated		Total
			No	Yes	
Low-Income	No	Count	52	54	106
		% within Low-Income	49.1%	50.9%	100.0%
	Yes	Count	643	197	840
		% within Low-Income	76.5%	23.5%	100.0%
Total		Count	695	251	946
		% within Low-Income	73.5%	26.5%	100.0%

Graduation Rate by Disability

As shown in Table 4.8, 946 students were identified – 62 students were disabled and 884 students were not. The graduation rate of students who were disabled was 18 (29%) which was significantly greater than the number of non-disabled students 238 (26.4%).

Table 4.8 Disability * Graduated Cross tabulation

			Graduated		Total
			No	Yes	
Disability	No	Count	651	233	884
		% within Disability	73.6%	26.4%	100.0%
	Yes	Count	44	18	62
		% within Disability	71.0%	29.0%	100.0%
Total		Count	695	251	946
		% within Disability	73.5%	26.5%	100.0%

Mean Cumulative GPA

As shown in Table 4.9, the mean cumulative GPA for students by gender was ($M=2.79$) for females compared to the rate of ($M=2.69$) for males. A mean difference of .10 was found.

Table 4.9 Mean GPA by Gender Report Cumulative GPA

Gender	Mean	N	Std. Deviation
Female	2.7917	591	.93774
Male	2.6881	355	.94971
Total	2.7528	946	.94309

As shown in Table 4.10, the mean cumulative GPA by first-generation was ($M=2.87$) compared to the rate of ($M=2.26$) for not first-generation students. A considerable difference of .61 was found.

Table 4.10 Mean GPA by First-Generation Report Cumulative GPA

First-Generation	Mean	N	Std. Deviation
No	2.2639	183	.86630
Yes	2.8701	763	.92337
Total	2.7528	946	.94309

As shown in Table 4.11, the mean cumulative GPA for low-income students was ($M=2.69$), while it was ($M=3.22$) for non-SSS low-income students. This yields a considerable difference of .53.

Table 4.11 Mean GPA by Low-Income Report Cumulative GPA

Low-Income	Mean	N	Std. Deviation
No	3.2216	106	.77048
Yes	2.6936	840	.94669
Total	2.7528	946	.94309

As shown in Table 4.12, the mean cumulative GPA of non-disabled students was ($M=2.80$) compared to the rate of ($M=2.06$) for those with disabilities. A considerable difference of .74 was found.

Table 4.12 Mean GPA by Disability Report Cumulative GPA

Disability	Mean	N	Std. Deviation
No	2.8013	884	.88268
Yes	2.0616	62	1.40736
Total	2.7528	946	.94309

The Effect of SSS on the Academic Success of First-Generation Students

As noted in Table 4.13, first-generation students served in SSS programs earned a slightly higher GPAs and credentials at a higher percentage, but were

retained at lower rates than their non-SSS first-generation peers. The reason for this disconnect with retention deserves further attention since higher GPAs and graduation rates would be expected to be positively correlated with retention.

Table 4.13 The Effect of SSS on the Academic Success of First-Generation Students

First-Generation		FALL TO		
		FALL (RETENTION)	Cumulative GPA	Graduated
No	Mean	.83	2.8950	.67
	N	12	12	12
	Std. Deviation	.389	.70371	.492
Yes	Mean	.75	2.9257	.69
	N	265	265	265
	Std. Deviation	.433	.71358	.465
Total	Mean	.75	2.9243	.69
	N	277	277	277
	Std. Deviation	.431	.71192	.465

The Effect of SSS on the Academic Success of Low-Income Students

As displayed in Table 4.14, low-income students served in SSS programs perform lower on all three measures of academic success than their low-income peers not served in SSS. It may be that using a dichotomous variable for low-income (i.e., PELL eligible) is insufficient given the broad variance in low-income status.

Table 4.14 The Effect of SSS Programs on Low-Income Students

		FALL TO FALL (RETENTION)	Cumulative GPA	Graduated
Low-Income	No			
	Mean	.84	3.2699	.81
	N	67	67	67
	Std. Deviation	.373	.60226	.398
Yes	Mean	.73	2.8141	.65
	N	210	210	210
	Std. Deviation	.446	.71013	.479
Total	Mean	.75	2.9243	.69
	N	277	277	277
	Std. Deviation	.431	.71192	.465

The Effect of SSS Programs on Students with Disabilities

As displayed in Table 4.15, students with disabilities who participate in SSS programs experience slightly greater academic success than their disabled peers not in SSS. This finding holds true across all three indicators of success.

Table 4.15 The Effect of SSS Programs on the Academic Success of Students with Disabilities

		FALL TO FALL (RETENTION)	Cumulative GPA	Graduated
Disability	No			
	Mean	.75	2.9206	.68
	N	255	255	255
	Std. Deviation	.432	.71374	.468
Yes	Mean	.77	2.9673	.77
	N	22	22	22
	Std. Deviation	.429	.70541	.429
Total	Mean	.75	2.9243	.69
	N	277	277	277
	Std. Deviation	.431	.71192	.465

Influence of Specific Program Services on Participant's Success

Below are the results of the exit survey (see Appendix C) that each Student Support Services participant must take when he/she exits the program. The purpose of the exit survey was meant to show the experience participants had with program services during his/her participation in the SSS Academic Advantage Program at Southeast Kentucky Community & Technical College. Participants self-reported their opinion of the level of impact of each program service. Participants had the choice of responding to each statement with "4" very satisfied, "3" satisfied, "2" somewhat satisfied, and "1" not satisfied. A "4" was considered the most impact with a "1" being the least positive impact.

Frequencies of the survey were generated using SPSS. The frequency of each of the program services is shown in Tables 4.16 through 4.25. The program services and frequencies included academic advising/course selection services (272), transfer counseling services (231), career counseling services (234), academic and personal counseling (232), financial aid counseling (233), financial and economic literacy (260), Successful Student Workshops (247), cultural enrichment (221), academic tutoring (206), and mentoring (181). Academic advising/course selection was the most frequently used services with mentoring being the least frequently used. Satisfaction rates were very high with the vast majority rating each service very satisfied and no respondents reporting not satisfied.

Table 4.16 Academic Advising/Course Selection Services

		Frequency	Valid Percent	Cumulative Percent
Valid	Somewhat Satisfied	2	.7	.7
	Satisfied	26	9.6	10.3
	Very Satisfied	244	89.7	100.0
	Total	272	100.0	

Table 4.17 Transfer Counseling Services

		Frequency	Valid Percent	Cumulative Percent
Valid	Satisfied	16	6.9	6.9
	Very Satisfied	215	93.1	100.0
	Total	231	100.0	

Table 4.18 Career Counseling Services

		Frequency	Valid Percent	Cumulative Percent
Valid	Somewhat Satisfied	5	2.1	2.1
	Satisfied	28	12.0	14.1
	Very Satisfied	201	85.9	100.0
	Total	234	100.0	

Table 4.19 Academic and Personal Counseling

		Frequency	Valid Percent	Cumulative Percent
Valid	Satisfied	9	3.9	3.9
	Very Satisfied	223	96.1	100.0
	Total	232	100.0	

Table 4.20 Financial Aid Counseling

		Frequency	Valid Percent	Cumulative Percent
Valid	Satisfied	10	4.3	4.3
	Very Satisfied	223	95.7	100.0
	Total	233	100.0	

Table 4.21 Financial and Economic Literacy

		Frequency	Valid Percent	Cumulative Percent
Valid	Somewhat Satisfied	2	.8	.8
	Satisfied	20	7.7	8.5
	Very Satisfied	238	91.5	100.0
	Total	260	100.0	

Table 4.22 Successful Student Workshops

		Frequency	Valid Percent	Cumulative Percent
Valid	Satisfied	13	5.3	5.3
	Very Satisfied	234	94.7	100.0
	Total	247	100.0	

Table 4.23 Cultural Enrichment

		Frequency	Valid Percent	Cumulative Percent
Valid	Satisfied	18	8.1	8.1
	Very Satisfied	203	91.9	100.0
	Total	221	100.0	
Total		277		

Table 4.24 Academic Tutoring

	Frequency	Valid Percent	Cumulative Percent
Valid Satisfied	26	12.6	12.6
Very Satisfied	180	87.4	100.0
Total	206	100.0	

Table 4.25 Mentoring

	Frequency	Valid Percent	Cumulative Percent
Valid Somewhat Satisfied	5	2.8	2.8
Satisfied	31	17.1	19.9
Very Satisfied	145	80.1	100.0
Total	181	100.0	

Correlations of Student Support Services with Student Outcomes

Bivariate Correlations

Pearson's *r* correlations were calculated to assess the relationship between fall-to-fall retention rates, graduation rates, and cumulative GPAs with Student Support Services program services as shown in Table 4.26.

There were significant positive correlations between fall-to-fall retention rates and graduation rates ($r(276)=.843, p=.000$), cumulative GPA ($r(276)=.489, p=.000$), academic advising/course selection services ($r(271)=.515, p=.000$), transfer counseling services ($r(230)=.264, p=.000$), career counseling services ($r(233)=.141, p=.032$), financial and economic literacy ($r(259)=.282, p=.000$), Successful Student workshops ($r(246)=.230, p=.000$), cultural enrichment ($r(220)=.062, p=.362$), academic tutoring ($r(205)=.155, p=.027$), and mentoring ($r(180)=.046, p=.537$).

Additionally, there were significant positive correlations between graduation rates and fall-to-fall retention rates ($r(276)=.843, p=.000$), cumulative GPA ($r(276)=.490, p=.000$), academic advising/course selection services ($r(271)=.448, p=.000$), transfer counseling services ($r(230)=.181, p=.006$), career counseling services ($r(233)=.100, p=.126$), financial and economic literacy ($r(259)=.215, p=.000$), Successful Student workshops ($r(246)=.208, p=.001$), cultural enrichment ($r(220)=.037, p=.563$), and academic tutoring ($r(205)=.195, p=.005$).

Furthermore, there were significant positive correlations between cumulative GPAs and fall-to-fall retention rates ($r(276)=.489, p=.000$), graduation rates ($r(276)=.490, p=.000$), academic advising/course selection services ($r(271)=.341, p=.000$), transfer counseling services ($r(230)=.205, p=.002$), career counseling services ($r(233)=.249, p=.000$), academic and personal counseling ($r(231)=.006, p=.929$), financial aid counseling ($r(232)=.130, p=.048$), financial and economic literacy ($r(259)=.180, p=.004$), Successful Student workshops ($r(246)=.236, p=.000$), cultural enrichment ($r(220)=.079, p=.244$), academic tutoring ($r(205)=.329, p=.000$), mentoring ($r(180)=.209, p=.005$), and supplemental grant aid ($r(221)=.078, p=.244$).

A significant, but negative correlation was found when comparing fall-to-fall retention rates to academic and personal counseling ($r(231)=-.099, p=.134$), financial aid counseling ($r(232)=-.016, p=.809$), and supplemental grant aid ($r(221)=-.087, p=.198$). A significant, but negative correlation was also found when comparing graduation rates to academic and personal counseling ($r(231)=-.123, p=.062$), financial aid counseling ($r(232)=-.048, p=.464$), mentoring ($r(180)=-.036, p=.626$), and supplemental grant aid ($r(219)=-.115, p=.087$).

Table 4.26 Correlations

		FALL-TO-FALL (RETENTION)	Graduated	Cumulative GPA
FALL-TO-FALL (RETENTION)	Pearson Correlation	1	.843	.489
	Sig. (2- tailed)		.000	.000
	N	277	277	277
Graduated	Pearson Correlation	.843	1	.490
	Sig. (2- tailed)	.000		.000
	N	277	277	277
Cumulative GPA	Pearson Correlation	.489	.490	1
	Sig. (2- tailed)	.000	.000	
	N	277	277	277
Academic Advising/Course Selection Services	Pearson Correlation	.515	.448	.341
	Sig. (2- tailed)	.000	.000	.000
	N	272	272	272
Transfer Counseling Services	Pearson Correlation	.264	.181	.205
	Sig. (2- tailed)	.000	.006	.002
	N	231	231	231
Career Counseling Services	Pearson Correlation	.141	.100	.249
	Sig. (2- tailed)	.032	.126	.000
	N	234	234	234

Table 4.26 (continued)

Academic and Personal Counseling	Pearson Correlation	-.099	-.123	.006
	Sig. (2-tailed)	.134	.062	.929
	N	232	232	232
Financial Aid Counseling	Pearson Correlation	-.016	-.048	.130
	Sig. (2-tailed)	.809	.464	.048
	N	233	233	233
Financial and Economic Literacy	Pearson Correlation	.282	.215	.180
	Sig. (2-tailed)	.000	.000	.004
	N	260	260	260
Successful Student Workshops	Pearson Correlation	.230	.208	.236
	Sig. (2-tailed)	.000	.001	.000
	N	247	247	247
Cultural Enrichment	Pearson Correlation	.062	.037	.079
	Sig. (2-tailed)	.362	.583	.244
	N	221	221	221
Academic Tutoring	Pearson Correlation	.155	.195	.329
	Sig. (2-tailed)	.027	.005	.000
	N	206	206	206

Table 4.26 (continued)

Mentoring	Pearson Correlation	.046	-.036	.209
	Sig. (2-tailed)	.537	.626	.005
	N	181	181	181
Supplemental Grant Aid	Pearson Correlation	-.087	-.115	.078
	Sig. (2-tailed)	.198	.087	.244
	N	222	222	222

Student Support Services Means in Descending Order

Descriptive statistics are reported in descending order in Table 4.27 and reveal that academic and personal counseling ($M=3.96$, $SD=.194$) and financial aid counseling ($M=3.96$, $SD=.203$) received the highest mean response for positively affecting fall-to-fall retention rates, graduation rates, and cumulative GPA. Other responses are as follows: supplemental grant aid ($M=3.95$, $SD=.218$), Successful Student workshops ($M=3.95$, $SD=.224$), transfer counseling services ($M=3.93$, $SD=.254$), cultural enrichment ($M=3.92$, $SD=.274$), financial and economic literacy ($M=3.91$, $SD=.316$), academic advising/course selection services ($M=3.89$, $SD=.337$), academic tutoring ($M=3.87$, $SD=.333$), and career counseling services ($M=3.84$, $SD=.424$). Mentoring ($M=3.77$, $SD=.481$) was rated the least influential of all indicators of student success.

Table 4.27 Descriptive Statistics: Program Services

	N	Mean	Std. Deviation
Academic and Personal Counseling	232	3.96	.194
Financial Aid Counseling	233	3.96	.203
Supplemental Grant Aid	222	3.95	.218
Successful Student Workshops	247	3.95	.224
Transfer Counseling Services	231	3.93	.254
Cultural Enrichment	221	3.92	.274
Financial and Economic Literacy	260	3.91	.316
Academic Advising/Course Selection Services	272	3.89	.337
Academic Tutoring	206	3.87	.333
Career Counseling Services	234	3.84	.424
Mentoring	181	3.77	.481

Academic Achievement of Student Support Services Participants

Table 4.28 and 4.29 shows after controlling for gender, first-generation, low-income, and disability, students participating in SSS program ($Ad; M=.75\%$) were retained at higher rates than non-SSS eligible students in the SSS program ($Ad; M=.07\%$) [$F=725.7 (1), p=.000$]. Collectively, the variables explained 49.2% of the variance in fall-to-fall retention rates. The only significant covariate was first-generation ($p=.003$), which indicated first-generation students are more likely to be retained.

Table 4.28 Descriptive Statistics: Fall-to-Fall Retention

Dependent Variable: FALL-TO-FALL (RETENTION)

Student Support Services	Mean	Std. Deviation	N
No	.07	.258	669
Yes	.75	.431	277
Total	.27	.445	946

Table 4.29 Tests of Between-Subjects Effects: Fall-to-Fall Retention

Dependent Variable: FALL-TO-FALL (RETENTION)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	92.523 ^a	5	18.505	183.761	.000	.494
Intercept	9.289	1	9.289	92.240	.000	.089
GENDER	.097	1	.097	.963	.327	.001
FIRSTGEN	.919	1	.919	9.125	.003	.010
LOW-INCOME	.088	1	.088	.871	.351	.001
DISABILITY	.110	1	.110	1.090	.297	.001
SERVED	73.082	1	73.082	725.742	.000	.436
Error	94.658	940	.101			
Total	257.000	946				
Corrected Total	187.181	945				

a. R Squared = .494 (Adjusted R Squared = .492)

Table 4.30 and 4.31 shows after controlling for gender, first-generation, low-income, and disability, students participating in SSS program (*Ad*; $M=.69\%$) graduated at higher rates than non-SSS eligible students in the SSS program (*Ad*; $M=.09\%$) [$F=442.3 (1), p=.000$]. Collectively, the variables explained 38.4% of the

variance in graduation rates. The only significant covariate was first-generation ($p=.000$), which indicated first-generation students are more likely to be graduated.

Table 4.30 Descriptive Statistics: Graduated

Dependent Variable: Graduated

Student Support Services	Mean	Std. Deviation	N
No	.09	.288	669
Yes	.69	.465	277
Total	.27	.442	946

Table 4.31 Tests of Between-Subjects: Effects Graduated

Dependent Variable: Graduated

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	71.329 ^a	5	14.266	118.593	.000	.387
Intercept	7.278	1	7.278	60.504	.000	.060
GENDER	.004	1	.004	.030	.863	.000
FIRSTGEN	1.793	1	1.793	14.901	.000	.016
LOW-INCOME	.225	1	.225	1.872	.172	.002
DISABILITY	.012	1	.012	.096	.757	.000
SERVED	53.199	1	53.199	442.253	.000	.320
Error	113.074	940	.120			
Total	251.000	946				
Corrected Total	184.403	945				

a. R Squared = .387 (Adjusted R Squared = .384)

Table 4.32 and 4.33 shows after controlling for gender, first-generation, low-income, and disability, students participating in SSS program ($Ad; M=2.92$) had higher GPAs than non-SSS eligible students in the SSS program ($Ad; M=2.68$) [$F=.263$ (1), $p=.608$]. Collectively, the variables explained 12.9% of the

variance in GPAs. The significant covariates were first-generation ($p=.000$), low-income ($p=.000$), and disability ($p=.000$) which indicated first-generation, low-income, and disabled students are more likely to have a higher GPA.

Table 4.32 Descriptive Statistics: Cumulative GPA

Dependent Variable: Cumulative GPA

Student Support Services	Mean	Std. Deviation	N
No	2.6818	1.01566	669
Yes	2.9243	.71192	277
Total	2.7528	.94309	946

Table 4.33 Tests of Between-Subjects Effects: Cumulative GPA

Dependent Variable: Cumulative GPA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	112.146 ^a	5	22.429	28.947	.000	.133
Intercept	510.792	1	510.792	659.224	.000	.412
GENDER	1.627	1	1.627	2.100	.148	.002
FIRSTGEN	44.330	1	44.330	57.211	.000	.057
LOW-INCOME	21.356	1	21.356	27.562	.000	.028
DISABILITY	34.980	1	34.980	45.145	.000	.046
SERVED	.204	1	.204	.263	.608	.000
Error	728.348	940	.775			
Total	8009.207	946				
Corrected Total	840.494	945				

a. R Squared = .133 (Adjusted R Squared = .129)

Regression Student Retention on Student Support Services

As shown in Tables 4.34, 4.35, and 4.36 in order to define what specific program services were associated with these indicators (fall-to-fall retention rates, graduation rates, and cumulative GPA) of student achievement in Student Support Services participants, simple linear regression analyses were conducted with fall-to-fall retention rate as the dependent variable. The predictor variables in the regression were supplemental grant aid, financial aid counseling, academic/course selection services, cultural enrichment, career counseling services, academic tutoring, mentoring, transfer counseling services, financial and economic literacy, and Successful Student Workshops. Overall, the model was significant ($F=12.24$, $p<.000$). In other words, the ten predictors explain retention better than chance alone. Together, the predictors explained 49% of the variance in fall-to-fall retention rates. Results revealed that financial and economic literacy, career counseling services, academic tutoring, transfer counseling services, supplemental grant aid, mentoring, were not related to student success as measured by fall-to-fall retention rate, but academic/course selection services ($\beta=.594$), cultural enrichment ($\beta=.146$), and Successful Student Workshops ($\beta=.466$) significantly predicted fall-to-fall retention rates. Academic advising/course selection services and Successful Student Workshops were the most influential predictors and are nearly five times more influential than the other predictors. Financial aid counseling was negatively related to retention ($\beta=-.469$) It is still important to stress that using other services significantly predicted fall-to-fall retention rates while financial aid counseling, financial and economic literacy, and supplemental grant aid did not.

Table 4.34 Model Summary: Fall-to-Fall Retention

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.696 ^a	.485	.445	.255

a. Predictors: (Constant), Supplemental Grant Aid, Financial Aid Counseling, Academic Advising/Course Selection Services, Cultural Enrichment, Career Counseling Services, Academic Tutoring, Mentoring, Transfer Counseling Services, Financial and Economic Literacy, Successful Student Workshops

Table 4.35 ANOVA^a: Fall-to-Fall Retention

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.973	10	.797	12.243	.000 ^b
	Residual	8.466	130	.065		
	Total	16.440	140			

a. Dependent Variable: FALL-TO-FALL (RETENTION)

b. Predictors: (Constant), Supplemental Grant Aid, Financial Aid Counseling, Academic Advising/Course Selection Services, Cultural Enrichment, Career Counseling Services, Academic Tutoring, Mentoring, Transfer Counseling Services, Financial and Economic Literacy, Successful Student Workshops

Table 4.36 Coefficients^a: Fall-to-Fall Retention

Model		Standardized Coefficients	t	Sig.
		Beta		
1	(Constant)		-2.943	.004
	Academic Advising/Course Selection Services	.594	8.969	.000
	Transfer Counseling Services	.103	1.288	.200
	Career Counseling Services	.128	1.652	.101
	Financial Aid Counseling	-.469	-3.216	.002
	Financial and Economic Literacy	-.095	-1.042	.299
	Successful Student Workshops	.466	3.730	.000
	Cultural Enrichment	.146	2.190	.030
	Academic Tutoring	.090	1.191	.236
	Mentoring	.022	.290	.772
	Supplemental Grant Aid	-.122	-1.520	.131

a. Dependent Variable: FALL-TO-FALL (RETENTION)

As shown in Tables 4.37, 4.38, and 4.39 in order to define what factors were associated with academic success in Student Support Services participants, simple linear regression analyses were conducted with cumulative GPA the dependent variable. The predictor variables in the regression were supplemental grant aid, financial aid counseling, academic/course selection services, cultural enrichment, career counseling services, academic tutoring, mentoring, transfer counseling services, financial and economic literacy, and Successful Student Workshops. Overall, the model was significant ($F=6.74$, $p<.000$). In other words, the ten predictors explain cumulative GPA better than chance alone. Together, the predictors explained 34% of the variance in fall-to-fall retention rates. Results revealed that

neither Successful Student Workshops nor supplemental grant aid were related to student success as measured by cumulative GPA, nor were financial and economic literacy ($\beta=.040$), financial aid counseling ($\beta=.083$), cultural enrichment ($\beta=.070$), career counseling services ($\beta=.037$), or transfer counseling services ($\beta=.167$). Only academic advising ($\beta=.594$), academic tutoring ($\beta=.284$), and mentoring ($\beta=.194$) significantly predicted the rate of cumulative GPA. Academic advising/course selection services was the most influential predictor and is twice as influential as the other predictors are. It is still important to stress that using other services significantly predicted cumulative GPA while Successful Student Workshops and supplemental grant aid did not.

Table 4.37 Model Summary: Graduated

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.584 ^a	.341	.291	.42933

a. Predictors: (Constant), Supplemental Grant Aid, Financial Aid Counseling, Academic Advising/Course Selection Services, Cultural Enrichment, Career Counseling Services, Academic Tutoring, Mentoring, Transfer Counseling Services, Financial and Economic Literacy, Successful Student Workshops

Table 4.38 ANOVA^a: Graduated

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	12.415	10	1.241	6.735	.000 ^b
Residual	23.963	130	.184		
Total	36.377	140			

a. Dependent Variable: Cumulative GPA

Table 4.39 Coefficients^a: Graduated

Model	Standardized Coefficients		t	Sig.
	Beta			
1 (Constant)			-3.444	.001
Academic Advising/Course Selection Services	.438		5.857	.000
Transfer Counseling Services	.167		1.856	.066
Career Counseling Services	.037		.427	.670
Financial Aid Counseling	.083		.504	.615
Financial and Economic Literacy	.040		.394	.695
Successful Student Workshops	-.025		-.178	.859
Cultural Enrichment	.070		.934	.352
Academic Tutoring	.284		3.334	.001
Mentoring	.194		2.272	.025
Supplemental Grant Aid	-.120		-1.320	.189

a. Dependent Variable: Cumulative GPA

As shown in Tables 4.40, 4.41, and 4.42 in order to define what factors were associated with these indicators (fall-to-fall retention rates, graduation rates, and cumulative GPA) of student achievement in Student Support Services participants, simple linear regression analyses were conducted with graduation rate as the dependent variable. The predictor variables in the regression were supplemental grant aid, financial aid counseling, academic/course selection services, cultural enrichment, career counseling services, academic tutoring, mentoring, transfer counseling services, financial and economic literacy, and Successful Student Workshops. Overall, the model was significant ($F=4.58, p<.000$). In other words, the ten predictors explain graduation rate better than chance alone. Together, the predictors

explained 26% of the variance in graduation rates. Results revealed that only academic tutoring ($\beta=.227$), Academic advising/course selection services ($\beta=.438$) Successful Student Workshops ($\beta=.298$) significantly predicted graduation rates. Academic advising/course selection services was the most influential predictor and is approximately twice as influential as the other predictors are.

Table 4.40 Model Summary: Cumulative GPA

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.510 ^a	.261	.204	.390

a. Predictors: (Constant), Supplemental Grant Aid, Financial Aid Counseling, Academic Advising/Course Selection Services, Cultural Enrichment, Career Counseling Services, Academic Tutoring, Mentoring, Transfer Counseling Services, Financial and Economic Literacy, Successful Student Workshops

Table 4.41 ANOVA^a: Cumulative GPA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.986	10	.699	4.581	.000 ^b
	Residual	19.823	130	.152		
	Total	26.809	140			

a. Dependent Variable: Graduated

Table 4.42 Coefficients^a: Cumulative GPA

Model		Standardized Coefficients	t	Sig.
		Beta		
1	(Constant)		-1.087	.279
	Academic Advising/Course Selection Services	.439	5.537	.000
	Transfer Counseling Services	.011	.112	.911
	Career Counseling Services	-.066	-.716	.475
	Financial Aid Counseling	-.266	-1.521	.131
	Financial and Economic Literacy	-.073	-.674	.502
	Successful Student Workshops	.298	1.992	.048
	Cultural Enrichment	.063	.791	.430
	Academic Tutoring	.227	2.517	.013
	Mentoring	-.109	-1.208	.229
	Supplemental Grant Aid	-.159	-1.650	.101

a. Dependent Variable: Graduated

Chapter 5

Discussion

This chapter analyzes and interprets the data presented in Chapter 4 and offers recommendations for future research. Chapter 5 was organized into several different sections. The first section reviews the purpose of the study and research questions. The second section discusses the results of the study as it relates to the research questions. The next two sections discuss the program effect on postsecondary education and the implications for practice and policy. The final section recommends areas for future research and summary.

Purpose of Study

The purpose of this study was to determine whether the students who participated in the Student Support Services (SSS) program at Southeast Kentucky Community and Technical College (SKCTC) had higher GPAs, fall-to-fall retention rates and graduation rates than non-SSS eligible students who were also first-generation (FG), low-income (LI), and/or disabled.

Comparisons of the SSS participants and non-SSS eligible student's GPAs, retention and graduation rates were made. Further, the effectiveness of SSS program services was evaluated through surveys that each participant completed when exiting the program. The survey results showed which specific program services predicted increased student retention and higher academic achievements.

Research Questions

The following research questions guided the study:

- 1) Are there differences in student success between SSS participants and non-SSS eligible students controlling for first-generation, low-income, and disability?

2) Are SSS program services effective in determining participant success?

Student success is measured by retention rates, graduation rates, and grade-point averages (GPAs).

Null Hypotheses

H₀ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by retention rates.

H₁ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by graduation rates.

H₂ There is no difference in student success between SSS participants and non-SSS eligible students with similar backgrounds as measured by grade-point averages (GPAs).

H₃ There is no relationship between student success as measured by specific program services provided.

The Effectiveness of the SSS Program

The data collected on the Student Support Services Program and data received from the Institutional Research Office at Southeast Kentucky and Technical College revealed students participating in the Student Support Services Program had significantly higher fall-to-fall retention rates, graduation rates, and higher GPAs as compared to comparable college students that did not participate. In fact, first-generation students in SSS outperformed non-SSS first-generation students who did not participate in SSS programs in terms of GPA and graduation rates. The results are summarized in Table 5.1.

Table 5.1 The Effect of SSS on the Academic Success of First-Generation Students

		FALL TO FALL (RETENTION)	Cumulative GPA	Graduated
First-Generation No	Mean	.83	2.8950	.67
	N	12	12	12
	Std. Deviation	.389	.70371	.492
Yes	Mean	.75	2.9257	.69
	N	265	265	265
	Std. Deviation	.433	.71358	.465

Similar findings emerged for the effect of SSS programs on students with disabilities. In fact, students with disabilities outperformed their non-disabled peers who participated in SSS on all three measures of academic success. The results are displayed in Table 5.2.

Table 5.2 The Effect of SSS Programs on the Academic Success of Students with Disabilities

		FALL TO FALL (RETENTION)	Cumulative GPA	Graduated
Disability No	Mean	.75	2.9206	.68
	N	255	255	255
	Std. Deviation	.432	.71374	.468
Yes	Mean	.77	2.9673	.77
	N	22	22	22
	Std. Deviation	.429	.70541	.429
Total	Mean	.75	2.9243	.69
	N	277	277	277
	Std. Deviation	.431	.71192	.465

Despite the outstanding findings above, they did not hold for low-income students. The results are shown in Table 5.3. In other words, non-SSS low-income students outscored low-income SSS participants on all measures of academic success.

Therefore, SSS appears to add greatest value more too first-generation and disabled students.

Table 5.3 The Effect of SSS Programs on Low-Income Students

Low-Income		FALL TO	Cumulative	
		FALL (RETENTION)	GPA	Graduated
No	Mean	.84	3.2699	.81
	N	67	67	67
	Std. Deviation	.373	.60226	.398
Yes	Mean	.73	2.8141	.65
	N	210	210	210
	Std. Deviation	.446	.71013	.479
Total	Mean	.75	2.9243	.69
	N	277	277	277
	Std. Deviation	.431	.71192	.465

The results from the ANCOVAs on the effect of the SSS program on indicators of academic success also were positive. First, after controlling for gender, first-generation, low-income, and disability, students participating in SSS program ($Ad; M=.75\%$) were retained at higher rates than non-SSS eligible students in the SSS program ($Ad; M=.07\%$) [$F=725.7 (1), p=.000$]. Similarly, after controlling for gender, first-generation, low-income, and disability, students participating in SSS program ($Ad; M=.69\%$) graduated at higher rates than non-SSS eligible students in the SSS program ($Ad; M=.09\%$) [$F=442.3 (1), p=.000$]. Finally, after controlling for gender, first-generation, low-income, and disability, students participating in SSS program ($Ad; M=2.92$) had higher GPAs than non-SSS eligible students in the SSS program ($Ad; M=2.68$) [$F=.263 (1), p=.608$]. Collectively, these results provide compelling evidence of the positive effects of SSS program participation by traditionally underserved students.

The Effect of Specific SSS Services on Academic Success

The results from the exit surveys SSS participants complete when exiting the program showed high levels of satisfaction with the program services. Most of the program services offered by the Student Support Services Program played an immense part in student success. The frequency of the results was calculated in SPSS using the ten program services offered. Favorability ratings for all but one service (mentoring - 181) were between 200 and 272. More evidence is needed on why these ratings were slightly lower. It may be that all participants do not have a mentor or fail to meet in meaningful ways if they do.

The most popular service was academic advising/course selection. Both academic and personal counseling and financial aid counseling received the highest mean response ($M=3.96$) of all program services. Again, the least influential was mentoring ($M=3.77$), which still had a high rating.

In addition, the influence program services have on student success was shown using bivariate correlations and multiple regressions. The bivariate correlations follow. Academic advising/course selection services was the predictor most positively correlated with fall-to-fall retention rates ($r(271)=.515, p=.000$) followed by financial and economic literacy ($r(259)=.282, p=.000$), transfer counseling services ($r(230)=.264, p=.000$), Successful Student workshops ($r(246)=.230, p=.000$), academic tutoring ($r(205)=.155, p=.027$), career counseling services ($r(233)=.141, p=.032$), cultural enrichment ($r(220)=.062, p=.362$), and mentoring ($r(180)=.046, p=.537$). Academic advising/course selection services was the predictor most positively correlated with graduation rates ($r(271)=.448, p=.000$) followed by financial and economic literacy ($r(259)=.215, p=.000$), Successful Student workshops ($r(246)=.208, p=.001$), academic tutoring ($r(205)=.195, p=.005$),

transfer counseling services ($r(230)=.181, p=.006$), career counseling services ($r(233)=.100, p=.126$), and cultural enrichment ($r(220)=.037, p=.563$). Academic advising/course selection services was the predictor most positively correlated with cumulative GPA ($r(271)=.341, p=.000$) followed by academic tutoring ($r(205)=.329, p=.000$), career counseling services ($r(233)=.249, p=.000$), Successful Student workshops ($r(246)=.236, p=.000$), mentoring ($r(180)=.209, p=.005$), transfer counseling services ($r(230)=.205, p=.002$), financial and economic literacy ($r(259)=.180, p=.004$), financial aid counseling ($r(232)=.130, p=.048$), cultural enrichment ($r(220)=.079, p=.244$), supplemental grant aid ($r(221)=.078, p=.244$), and academic and personal counseling ($r(231)=.006, p=.929$).

Finally, the simple linear regressions showed the importance of the academic elements of the program. Specifically, academic advising/course selection significantly predicted GPA, retention and graduation. Academic tutoring predicted graduation and GPA, while Successful Student Workshop positively predicted graduation and retention. Mentoring also was positively related to GPA. Surprisingly, financial aid counseling was negatively related to retention. On the contrary, cultural enrichment was positively related to retention, indicating the importance of a sense of place.

Implications of Practice

The results of this study provide ample evidence of the benefits of SSS program participation by low-income, first-generation and disabled students. With that in mind, the following recommendations are made to enhance implementation of SSS programs.

- The college presidents and faculty should work together to increase the level of awareness of both staff and students about the SSS program.

- The college's institutional research office should keep follow-up information on all participants. The keeping of such information would make available more and better statistics for studies similar to the present study and would allow the institution an opportunity, not only to evaluate programs but to meet future needs of students.
- The community college has an open-door admission policy for all students. Admissions officers should identify the students who meet the criteria of SSS programs (first-generation, low-income, and/or disability). These students could then be informed by mail, email, text, and social media of the services available to them through the SSS program.
- Any participant whose GPA drops sharply should be identified by a computerized tracking system. This could give the SSS staff an opportunity to advise the participant before the student withdraws from college or fails to return after the semester is completed.
- Participants should be given one hour of elective credit for participation in SSS program workshops such as orientation to college, study skills, writing skills, math skills, and occupational essentials.
- The SSS program should be located in an area that is easily assessable to students. This will help keep their activities highly visible.
- College administration should seek resources to extend the SSS program to serve more participants.

Implications for Policy

Performance and outcome-based funding is particularly meant to benefit at-risk (low-income/first-generation) students, who frequently leave college in debt, without degrees, and good job opportunities. Performance and outcome-based funding helps

these students by encouraging colleges to concentrate more heavily on providing support and removing obstacles to help them earn significant credentials.

Performance and outcome-based funding recognizes that underrepresented students require extra academic, financial and social supports to succeed (Prichard Committee for Academic Excellence, 2016). Kentucky is moving to the performance and outcome-based funding model. It is obvious that the Kentucky Community and Technical College System (KCTCS), will eventually gear toward performance and outcome-based funding, it will be based on credit hours, graduation rates, and credentials earned. Therefore, some of the findings found in this study that has led to these positive outcomes are going to mean more money for KCTCS and SKCTC, but if they do not reach all students needing SSS programs to be academically successful, it is going to mean less money for the institutions and put their sustainability at risk.

Recommendations for Future Research

Based on the findings and conclusions of this study, the following recommendations are offered for future research and for improving practice in the SSS program.

- Additional research should be under taken to determine the quality of SSS programs being offered in the Kentucky Community and Technical College Systems.
- A long-term follow-up study of students from a greater span of years from different community colleges should be undertaken.
- Replication of the study at state or private colleges or universities in Kentucky or in other states should be implemented.
- A longitudinal study that tracks and monitors comparable SSS and non-SSS eligible students through graduation should be conducted.

- Replication of the study that focuses on student's prior academic preparation should be done.
- Replication of study on additional non-academic factors that cause students to withdraw from the institution should take place.
- There is a lack of empirical research on SSS programs in community colleges, especially when it comes to the practice of retention. More studies must be performed to not only inform practice, but to inform resource allocations in this era of accountability and declining resources for many postsecondary institutions.

Summary

With the continuing loss of jobs and other economic issues in Southeastern Kentucky and the majority of the Appalachian region, a college education is more crucial than ever to residents in the area. Every effort must be made to help low-income, first-generation students be successful or progressions of poverty will remain and increase in the rural communities this college serves. This study showed that first-generation/low-income students who participate in Student Support Services programs do better in college than non-SSS eligible college students at SKCTC. The findings indicate that SSS participants have higher retention rates, graduation rates, and grade point averages. The results of the exit survey that SSS participants answered, illustrates the importance of the program services provided. The academic components were the most significant. It is vital that Southeast Kentucky Community & Technical College do everything conceivable to help area residents access advanced training, provide the support to help all students succeed, and allow students to earn degrees. SSS programs are helping some low-income, first-generation students accomplish such goals, and their capability to assist additional

students should be extended. The Student Support Services program staff should be applauded for the exceptional obligation they have to helping increase the academic and overall student success of its participants.

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Appendices

Appendix A: Copy of IRB Approval Letter



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NOTICE OF IRB EXEMPTION STATUS

Protocol Number: 15-005

Institutional Review Board IRB00002836, DHHS FWA00003332

Principal Investigator: Deborah D. Hodges Faculty Advisor: **Dr. Charles Hausman**

Project Title: The Effect of a Student Service Support Program on Retention at a Rural Appalachian Community College

Exemption Date: July 20, 2015

Approved by: Dr. Tara Shepperson, IRB Member

This document confirms that the Institutional Review Board (IRB) has granted exempt status for the above referenced research project as outlined in the application submitted for IRB review with an immediate effective date. Exempt status means that your research is exempt from further review for a period of three years from the original notification date if no changes are made to the original protocol. If you plan to continue the project beyond three years, you are required to reapply for exemption.

Principal Investigator Responsibilities: It is the responsibility of the principal investigator to ensure that all investigators and staff associated with this study meet the training requirements for conducting research involving human subjects and follow the approved protocol.

Adverse Events: Any adverse or unexpected events that occur in conjunction with this study must be reported to the IRB within ten calendar days of the occurrence.

Changes to Approved Research Protocol: If changes to the approved research protocol become necessary, a description of those changes must be submitted for IRB review and approval prior to implementation. If the changes result in a change in your project's exempt status, you will be required to submit an application for expedited or full IRB review. Changes include, but are not limited to, those involving study personnel, subjects, and procedures.

Other Provisions of Approval, if applicable: None

Please contact Sponsored Programs at 859-622-3636 or send email to tiffany.hamblin@eku.edu or lisa.royalty@eku.edu with questions.



Eastern Kentucky University is an Equal Opportunity-Affirmative Action Employer and Educational Institution.

Appendix B: Copy of HRSB Approval Letter

300 North Main Street
Versailles, KY 40383
Telephone: (502) 256-3100
Website: kctcs.edu

7/21/2015

Deborah D. Hodge
700 College Rd.
Cumberland, KY 40823

RE: The Effectiveness of the Student Support Services Program on Retention at a Rural Appalachia
Community College

Dear Deborah:

After careful consideration of your application to the KCTCS Human Subjects Review Board, I have determined that you are eligible for exemption from federal regulations regarding the protection of human subjects based on your research using a procedure that meets the exempt review criteria section 7 (2).

Thank you for your cooperation in meeting the federal requirements for conducting research that utilizes human subjects. We appreciate your notification to this board and we will keep your information on file.

Sincerely,



Rhonda R. Tracy, Ph.D.
Chancellor
Chair, KCTCS Human Subjects Review Board

cc: Christina Whillfield, Ph.D.
System Director of Research and Policy Analysis

Appendix C: Student Support Services Exit Survey



Student Support Services Exit Survey

Name: _____ Student ID: _____ Date: _____

Please take a few minutes to fill out this survey on your experience during your participation in the Academic Advantage Program at Southeast Kentucky Community and Technical College. We welcome your feedback and your answers will be kept confidential. If you did not use a service, please mark N/A. Thank you for your participation.

Circle the response that most accurately describes your opinion of each statement.

Academic Advising/ Course Selection Services Registration, Graduation Degree Check Sheet/Audit, Major/Minor Exploration, Schedules

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Transfer Counseling Services Transfer School Advising, Campus Visits

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Career Counseling Services Career Exploration

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Counseling Services Academic and personal issues

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Financial Aid Counseling Academic and personal issues

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Financial and Economic Literacy Financial Information

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Successful Student Workshops Online or Face-to-Face

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Cultural Enrichment Trips and Events attended

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Academic Tutoring Individual and/or Group Tutoring

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Mentoring Individual mentor

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Supplemental Grant Aid Financial Supplement to eligible participant.

5 Very Satisfied 4 Satisfied 3 Somewhat Satisfied 2 Not Satisfied 1 N/A

Vita

Deborah D. Hodge

Academic Coordinator for Student Support Services/Adjunct Faculty/

Education Specialist

Southeast Kentucky Community and Technical College

Cumberland, Kentucky

Education:

Doctoral Candidate, Doctor of Education (Ed.D), Educational Leadership & Policy

Studies, Eastern Kentucky University, August 2012 - Present

Master of Science, Information Systems/Management, University of Phoenix Online,

August 2004 - May 2006

Bachelor of Arts, Business Administration/Computer Information Systems, Lincoln

Memorial University, August 2002 - May 2004

Experience:

Southeast Kentucky Community and Technical College (SKCTC)

Education Specialist – Academic Coordinator October 2007-present

for TRiO Student Support Services

Adjunct Faculty – Hazard Community College January 2010-present

Adjunct Faculty – Southeast Kentucky CTC August 2006-present

Learn by Term Test Proctor October 2004-present

Co-Coordinator – Academic Support Center August 2006-Dec. 2016

ACT, Inc. Test Proctor August 2004-Dec. 2011

Adjunct Faculty – Elizabethtown CTC August 2009-Dec. 2010

Interim Academic Coordinator December 2006-Oct. 2007

for TRiO Student Support Services

Assistant Coordinator – Academic Support Center July 2004-August 2006

Professional Tutor – Academic Support Center August 2000-June 2004

Receptionist – Academic Support Center August 1999-May 2000

Teaching:

Introduction to Computer, CIT 105, *Southeast Kentucky CTC*

Human Resource Management, BAS 274, *Southeast Kentucky CTC*

Computational Thinking, CIT 120, *Hazard Community College*

Leadership Development, PSY 181, *Southeast Kentucky CTC*

Principles of Management, BAS 283, *Southeast Kentucky CTC*

The Exemplary Tutor, GEN 122, *Southeast Kentucky CTC*

Introduction to Computer, CIS 105, *Southeast Kentucky CTC*

Pre-Algebra, MT 055, *Southeast Kentucky CTC*

Foundations of College Writing II, ENC 091, *Southeast Kentucky CTC*

Webpage Development, IT 132, *Hazard Community College*

Design and Development, CIS 120, *Hazard Community College*

Visual Basic I, CIS 148, *Hazard Community College*

Principles of Management, BA 283, *Elizabethtown CTC*

Leadership/Awards/Presentations:

Kentucky Association of Educational Opportunity Program Personnel Emerging

Leader 2013

Southeast Kentucky Community & Technical College 5-Year Service Award 2012

University of Phoenix Magna Cum Laude May 2006

Lincoln Memorial University Summa Cum Laude May 2004

Alpha Chi National College Honor Scholarship Society – since March 2004

Outstanding Computer Information Systems Award April 2004

Phi Theta Kappa International Honor Society, Xi Sigma Chapter – since Dec. 2000

Phi Theta Kappa International Honor Society Award for Outstanding Achievement in
four hallmarks Leadership, Scholarship, Fellowship, and Service May 2001
and 2002

All-USA Academic Team Nominee 2002

Kentucky All-State Academic Team 2002

Phi Theta Kappa International Honor Society-Distinguished Chapter Member-Xi
Sigma 2002

All-American Scholar 2001

Phi Beta Lambda Member 1999-2003

Phi Beta Lambda Leadership Award 2002

Who's Who in Kentucky Phi Beta Lambda 2002

Outstanding Phi Beta Lambda Award 2000

Wilderness Road Girl Scout Council Outstanding Leader Award 1997

Dean's List-Fall 1999-Spring 2004

National Dean's List-2000-2004

Academic Advantage Award 2002

Outstanding Graduate in Office Systems May 2001

Unite Camp Coordinator 2014

JumpStart (AHED grant) Online Learning Presentation 2015, 2016, 2017

Southeast Scholars Study/Test Taking Skills Presentation 2016

East Kentucky Leadership Conference Coordinator on SKCTC Middlesboro
Campus 2013

Summer Bridge Supervisor for Upward Bound 2009, 2010 and 2011

Summer Job Shadowing Component Supervisor for Upward Bound Summer Bridge
2009, 2010 and 2011

Martin Luther King, Jr. Annual Breakfast Coordinator 2010-2017

Women's History Month Program Panel Coordinator 2016

Women's History Month Program Coordinator 2007-2015

Wilderness Road Girl Scout Council - Tri-City Area Service Unit Manager
1995-2004

Wilderness Road Girl Scout Council Leader – Tri-City Area 1993-2002

Wilderness Road Girl Scout Council Assistant Leader 1990-1991

Cumberland High School Youth Service Center Advisory Council Member 1998

Leadership Harlan County United 2002

Commonwealth Institute for Parent Leadership 2001

Southeast Scholar Mentor 2006

Southeast Scholar Counselor for Summer Institute 2006

Southeast Scholar Heritage Workshop Presentation 2006

Phi Theta Kappa International Honor Society Kentucky Region Honors 2005

Phi Theta Kappa International Honor Society, Xi Sigma Chapter President and
Vice-President 2000-2008

Phi Beta Lambda, Chi Alpha Alpha Chapter Vice-president, Secretary, and Treasurer
2000-2004

Kentucky Phi Beta Lambda State Secretary 2000