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The Impact Of Orientation Programming On Student Success Outcomes At A Rural Community College

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THE IMPACT OF ORIENTATION PROGRAMMING ON STUDENT SUCCESS OUTCOMES AT A RURAL COMMUNITY COLLEGE

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DEDICATION

I hereby dedicate this research document to all of those students who were not expected to be academically successful, to those who come from impoverished or disadvantaged backgrounds, to those who are students that are underrepresented in higher education, and to those who have an aptitude for learning, who strive to achieve, and who seek their opportunity at the American dream.

ACKNOWLEDGEMENTS

First and most importantly, I want to offer my praise to God, because it is he who has provided me with this life, with my intellectual capacity, and the opportunity to utilize education as a pathway to personal improvement. It is my faith in Jesus Christ that will lead me to become a better man, father, and husband. The principles of servant leadership will help me to become a better, more effective educator.

My family has played an instrumental role in my personal life as well as my professional career. It is their steadfast support from which I have derived my motivation to pursue higher education. My dear Mom, Darlene, was a role model in her persistent and dedicated pursuit to earn her college degree. She demonstrated that there is a pathway forward to increased prosperity for her three children. My mother's educational journey showed the way; her determination was inspiring, and her innumerable sacrifices made my quest for educational attainment a possibility and a realization. And to my Dad, Bill, who provided many of the material needs that a child and young man would need to pursue his dreams of college and who never hesitated to give what was needed in order to help me to achieve my dreams. So, it is heartfelt and true emotional sincerity that I say to the both of you, thank you, and I love you!

It is my wife, Tammy, that I owe much gratitude and appreciation. Without her support and encouragement, I would not have accomplished many of my personal and professional achievements. When I studied, she worked; when I needed, she provided; when I was frustrated, she consoled; when I was at wits end, she was there to say, "you got this; you can do it." To my beautiful, amazing, and wonderful partner in life and love, I say thank you! And, to my children, Amy and William, I say I love you and what I do,

have done, and plan to do is because I want you to have an opportunity to enjoy the American dream of life, liberty, and the pursuit of happiness.

Finally, and with sincerity, I offer my thanks to my chair, Dr. Charles Hausman, who provided insight, assistance, and guidance as I completed this dissertation. I am thankful that he believed in my study and in me to the successful production of this dissertation. It is also important to me that I recognize my committee members, Dr. Sherwood Thompson, Dr. Deborah West, and Dr. Wheeler Conover, who provided support and technical assistance as I worked on this dissertation project from their classrooms, throughout the proposal stage, and toward the culmination of a successful dissertation study. The dissertation process was daunting, the time commitment was consuming, the stress was burdensome, but the weary traveler who meandered along this pathway has reached his destination.

ABSTRACT

Economic and fiscal challenges, increased public scrutiny, and calls for accountability from stakeholders necessitate that community colleges work diligently to improve student success outcomes. Programs, services, and initiatives need to be developed and implemented that will increase student retention. Orientation is an important intervention service that can help new students to acclimate and make a more successful transition to college. There is a need to study programs that increase student success, and new student orientation programs have demonstrated their promise in reducing student attrition. This quantitative study examined a first year new student orientation program at a rural community college in Appalachia and its impact on term-to-term retention for credential seeking students.

Academic and other non-academic information for all first-time, full-time status incoming students in the Fall 2010 were collected and compared between those students who participated in the Academic Orientation Program (AOP) and those who did not. Data utilized to measure student success outcomes were cumulative grade point average, total credit hours earned, the number of credentials earned, as well as term-to-term persistence and retention rates for both groups over a two full academic year period. Independent samples T-tests were performed as well as linear regressions, both of which resulted in positive findings that showed the overall positive impact of the AOP on student success. Implications for policy development, best practice, and further study are discussed, and an example of the AOP curriculum plan is provided in the appendix.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1: INTRODUCTION

Education is the academic and intellectual pathway that can lead to increased personal and professional success for individuals and society at large. It is increasingly important that citizens have the knowledge, skills, and abilities to compete within a more globalized and competitive workforce environment. Increasing educational attainment levels and building intellectual capital within rural communities will help individuals residing in such communities be able to qualify for and obtain gainful employment within the job market. New and emerging careers will necessitate that workers have acquired the knowledge, skills, and abilities that will enable them to enter the 21st Century workforce. Comprehensive community and technical colleges across America have an important role to play in preparing students for the world of work. It is vital that there is a strong postsecondary educational system that collaborates with the P-12 education system so that curriculum alignment can help students to meet college and career readiness standards. Although populations are burgeoning within the metropolitan cities and large suburban areas which attract significant public policy attention, it is also important that rural communities continue to receive consideration and the appropriate resources and support systems that will empower those citizens to be able to participate in the global economy.

Economic and demographic challenges exist within many rural Appalachian areas that include significant population loss, older age levels within the community, a reduced tax base, chronically high unemployment, and economic stagnation (Pollard & Jacobsen, 2012). Community and technical colleges will continue to have an ever increasing role to play in workforce preparedness. Community and technical colleges across America are

geographically situated in such a manner that can help to increase access for citizens at a lower cost, and they offer a wide variety of programs of study. Many community colleges now offer multiple methods of instructional delivery to include direct classroom instruction, hybridization, and distance learning technology formats that are relevant to the existing and emerging job market.

Economic despair, persistently high unemployment, and keen competition for jobs have fueled an increase of enrollments at community colleges across the country (Kantrowitz, 2010). Many of the students that attend community colleges come from a more diverse background than students that attend four-year colleges (Mullin, 2011). The diversity of the student population that attends a community college, which enriches the campus community, does include a broader age range that incorporates higher numbers of non-traditional students, unemployed or dislocated workers with significant work experience, a large number of first generation college students, and a high number of low socioeconomic status students. Approximately 43% percent of community college students have remedial course needs in reading, writing, or mathematics, and many others students are from underrepresented student populations that typically do not begin their studies at four year schools (Strong American Schools, 2008). It is incumbent upon the institution to recognize the value of diversity on campus while also realizing the challenges and obstacles that their students face.

Many community college students and others who are first time college students do not have a schematic frame of reference about how to go to college and what they need to be able to do to become a successful student. These first time students may benefit from the college providing a comprehensive Academic Orientation Program.

Academic success is important to the student, the institution, and the community, and institutions need to provide a range of resources and services to help students achieve their goals. Orientation is one of the most common intervention strategies used by institutions to promote retention and increase their engagement with new college students (Brawer, 1996). Brawer (1996) found that orientation programs impacted student retention and success rates, regardless of gender, age, academic major, placement scores, and employment status. This finding is important because Cohen and Brawer (2003) emphasized the lack of control that community colleges have with regard to student retention and persistence, and these authors assert that various reasons lead to student attrition that are often beyond the control of the institution such as familial environment and socioeconomic status.

Emerging Role of Community Colleges in Educational Attainment

Historically, community and technical colleges across America have been portrayed in popular culture, as well as within the higher education community, as a lesser important avenue by which students access postsecondary education. With the increased attention being paid to economic development and the goal to increase baccalaureate degree attainment levels in America, there has been an increase in the amount of attention being paid and resources allocated to the community college systems. For example, the Kentucky Council on Postsecondary Education (CPE) announced on October 7, 2007 that it had set goals and would intentionally provide resources to support increased enrollments within the Kentucky Community and Technical College System (KCTCS) through the Double the Numbers Plan (Kentucky CPE, 2007). The Commonwealth of Kentucky needs to double the number of bachelor's degree graduates

by 2020 in order to remain competitive in economic development efforts according to the Kentucky Council on Postsecondary Education. In 1997, the General Assembly passed the Kentucky Postsecondary Improvement Act, with the purpose of creating an independent yet comprehensive system of community and technical colleges under the auspices of KCTCS. The primary purpose of KCTCS is to increase the standard of living for citizens of the Commonwealth while providing enhanced access to postsecondary educational opportunity. Since the creation of KCTCS in 1997 student enrollment at community and technical colleges across Kentucky have increased dramatically to over 108,000 students in the Fall 2011 (Kentucky CPE, 2012).

Relationship Between Educational Attainment and Economic Opportunity

Evidence strongly indicates that educational attainment increases economic opportunity and earnings (U.S. Census, 2010). The U.S. Census Bureau report from 2010 clearly demonstrates that a higher level of educational attainment produces significantly higher income for those who have earned postsecondary credentials. Workers with less than a high school education earned a median annual income of $25,705, whereas those who completed high school or earned the GED had median earnings of $35,035. The data clearly show that those who have completed an Associate degree have a 17.4% increased earning capacity over those who only have the high school equivalent. The median earning of individuals holding an Associate degree is $42,419. Further, those who have earned a Bachelor's degree have a median earning capacity of $55,864, which is higher than those who have earned the Associate degree level credential (U.S. Census, 2010). The relationship between income and education level is presented in Figure 1.1.

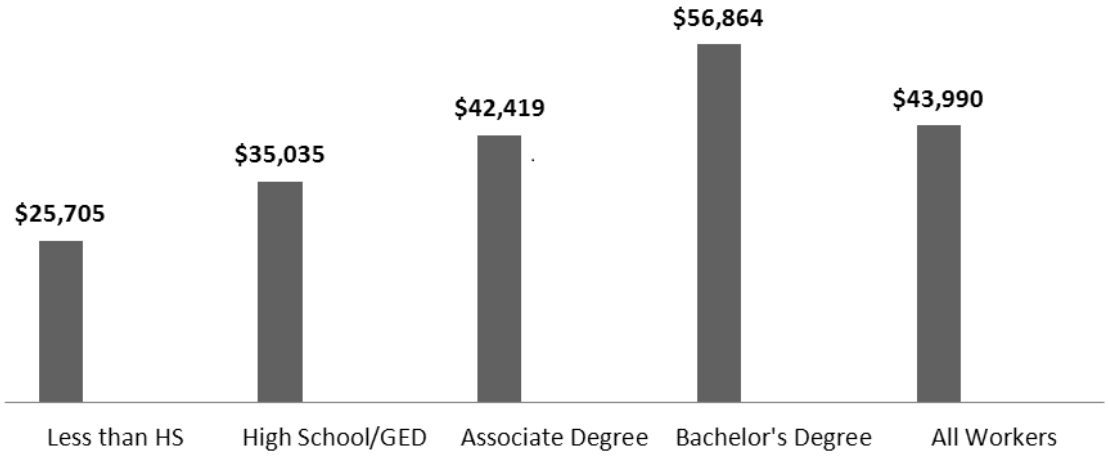

Figure 1.1. Median Earnings for Full-time, Year-round Workers by Educational Attainment

Source: U.S. Census Bureau. (2010). *PINC-03, Table 28*. Retrieved from http://www.census.gov/hhes/www.cpstables/032011/perinc/new03_028.htm

Data from the Bureau of Labor Statistics (BLS) reveal significant differences in the unemployment rates for those with less educational attainment as compared to those who have higher levels of education (U.S. BLS, 2013). Figures show those persons with less than a high school diploma were unemployed at the rate of 11.4% in April 2013; whereas those with high school diplomas and Associate degrees had unemployment rates of 7.2% and 6.0%, respectively. The educational attainment group with the lowest rate of unemployment, 3.6%, was those who had earned a Bachelor's degree or higher according to the BLS. The relationship between education level and unemployment rate is presented in Figure 1.2.

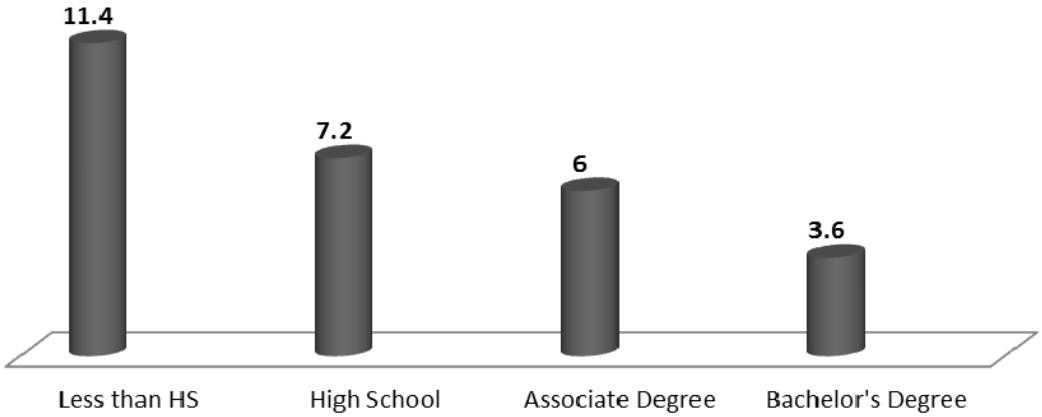

Figure 1.2. Unemployment Percentage Rate by Educational Attainment

Source: U.S. Bureau of Labor Statistics. (2013). *Table A-17*. Retrieved from http://www.bls.gov/web/empsit/cpseea17.htm

Research continues to suggest that individuals and society at large benefit from educational attainment. A review of the benefits of education indicate that attending community college improves individual health status and emotional well-being, and lowers criminal activity, incarceration rates, and welfare dependency (Belfield & Levin, 2007). The benefits of educational attainment with respect to individual well-being can also have a positive effect upon the entire family and the community (Arent, 2005).

Educational attainment by gender at the associate degree level is shown to improve the earnings capacity of female graduates at higher rates than males (Heckman, Lochner, & Todd, 2008). It also appears that younger graduates have increased earnings potential and capacity compared to older workers (Jacobson, LaLonde, & Sullivan, 2005). Data collected from the 2000's in Kentucky showed that positive earnings effects of degrees, diplomas, and certificates decreased with age (Jepsen, Troske, & Coomes, 2009). Evidence on race and earning gains is mixed and inconsistent. Reports indicate

that African-Americans have higher earnings gain estimates than Caucasians for those who hold the Associate degree (Averett & Dalessandro, 2001; Gill & Leigh, 2003). On the contrary, utilizing information from the National Adult Literacy Survey (NALS) database, it was reported that African-Americans earned the lowest gains in earnings for postsecondary education (Ishikawa & Ryan, 2002). Although some reports are contradictory, it is well understood that increased educational attainment is strongly associated with higher income and earnings potential at the aggregate level.

Rationale for Orientation Programs for Community College Students

Providing access to postsecondary educational opportunities is a necessary but not sufficient condition to increase educational attainment levels. It is essential that colleges create and implement student development programs to address high attrition rates, thereby increasing retention and student success. Colleges have strategic goals to increase student enrollments but often fail to address the needs of students to be more persistent once they have matriculated and arrived on campus (Feldman, 1993). The community college is a significant and important gateway for students to access postsecondary education and training because of lower tuition expenses, more open admissions policies, and closer physical proximity within the community.

It is widely understood and accepted by researchers and practitioners that student engagement is a critically important element that can lead to improved student success (Gardner, 1986; Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M., 2008; Svanum, S., & Bigatti, S. M., 2009). Student engagement begins at the point of recruitment and should continue throughout student's academic careers and beyond as the institution seeks input and support from alumni. Colleges that create a more inclusive and

engaging campus environment report that students become more participatory and active in the learning process (Chesley, 2004). Gardner and Siegel (2001) identify the first few weeks of the freshman term as a time when students develop independence, social networks, intellectual habits, as well as the skills and knowledge needed to succeed. Institutional and student development activities that facilitate student inclusion and actively engage students can increase achievement (Barefoot, 2000).

A highly diverse community college student body may necessitate that the institution be innovative as well as creative in the development of service oriented programs to help students adapt to and assimilate within the campus community (Boyer, 1996). Many institutions provide a new student orientation program for incoming first time students as well as parents so that each party will be able to develop a more comprehensive understanding of the collegiate environment in which students now find themselves. Orientation programs may be as simple as a one session welcome/student success seminar; more elaborate to include a welcoming campus tour, a student success seminar, and an advising session; or a robust comprehensive first year experience student development program that includes a student success course for credit. In order to reduce high attrition rates and thereby improving student success outcomes at the average community college, stakeholders must shift the focus from deficits with the incoming student and more clearly identify inadequate supports and services offered by the institution (Zwerling, 1980). Retention rates at community colleges are significantly lower than those rates found at four-year institutions (Schneider & Yin, 2012). Thirty-two percent of new college students attending 4-year public colleges drop out during their

freshman year, while 46% of 2-year public community college students leave before their sophomore year (ACT, 2009).

Engaging new students, providing an early intervention, and promoting student development may be helpful to first time students who are arriving on campus. Studies report that academic support programs are essential in helping students to persist and increase retention rates (Engle & Tinto, 2008; Lotkowski, Robbins, & Noeth, 2004; Reyes, 1997). Academic advising and career counseling can be integral components of a comprehensive student retention program. Students who are experiencing academic challenges must be provided the opportunity to work more closely with their instructors before and/or after class, and they also need to have access to tutorial support services. It is also critically important for institutions to provide an assimilation process by which students can learn how to adapt to the collegiate environment, learn to cope with social change, and learn how to navigate the college bureaucracy. It is through an effective orientation program and the development of first year experience programs that institutions help students make this transition. Such student development programs have been found to increase academic achievement, student satisfaction, and student retention (Barefoot, B.O., 2005; Gaff, 1997; Svanum, S., & Bigatti, S. M., 2009).

Purpose of the Study

The primary objective of this study was to ascertain the value of one new student orientation program at a rural community college in Kentucky as a student development service. Specifically, the study assessed the impact of this program on retention rates and other measures of student success. The orientation program provides specific types of services that are thought to be helpful and influential in students being able to effectively

adapt to the college environment. The program encompasses four components including a student success presentation, a campus resources component that helps students to learn how to navigate the college web page, a session on how to utilize campus software programs, and an academic advising and program planning session. The orientation program purposefully includes personnel from the college to be involved in the instructional effort so that students will have an opportunity to meet and work with faculty members.

It is the intent of the CPE that colleges and universities throughout Kentucky improve student success outcomes and increase degree attainment levels. For this goal of CPE to be realized, the legislature provided impetus and authorization via Senate Bill One to align curriculum throughout the P-16 systems so that students would be more able to meet college and career readiness standards. Senate Bill One (SB1) was signed by Governor Steve Brashear on March 26, 2009. SB1 called upon the Kentucky Department of Education, in collaboration with the Kentucky Council on Postsecondary Education, to plan and implement a comprehensive process for revising academic content standards. A comprehensive plan also was developed to create a unified strategy to reduce college remediation rates and increase graduation rates of postsecondary students with developmental education needs (Kentucky CPE, 2009). Senate Bill One identified several important strategies to promote college and career readiness and degree completion. It has led institutions to prioritize transitional programs such as orientation, accelerated learning such as dual enrollment initiatives, student support services, and early alert retention systems.

Consistent with the above emphases on student retention and success, as well as the role that orientation programs may play in improving these, this study focused on the following questions.

1. Are there differences in the academic success of students who participate in the Academic Orientation Program (AOP) compared to those who don't? Academic success is operationalized as persistence, retention, grade point average, credit hours earned, and credentials conferred.
2. What is the relationship between economic status; college readiness in reading; credit hours earned; and participation in orientation with retention.

Conceptual Framework for Student Retention: The IEO Model

Student Involvement Theory was developed by Alexander Astin throughout the 1980s and 1990s and culminated in the dissemination of the IEO Model. Figure 1.3 shows the major components of the IEO Model, including I-Inputs, E-Environment, and O-Outputs.

Figure 1.3. Astin's Input-Environment-Output (I-E-O) Model

Source: Astin, A. W. (1985). Involvement the cornerstone of excellence. *Change: The Magazine of Higher Learning*, *17*(4), 35-39.

The guiding principles of the IEO model suggest that educational assessment is not complete unless the evaluation includes information on student inputs, the educational environment, and student outcomes (Astin, 1993). A symbiotic relationship exists between the three components, much like Albert Bandura (1977) posits with his social learning theory that relies upon reciprocal determinism which influences behavioral expressions.

The IEO model is constructive when applying it to new student matriculation processes and the process of assimilation to college. The input variable includes the knowledge, skills, and abilities that a student has upon entering college. It also includes student personality dispositions and familial background, and how those may impact student success. The environment includes every situation whether on campus, at work, at home, or otherwise that may influence the student's level of engagement and distribution of effort. The output is the result of student engagement as evidenced by academic achievement such as increased credit hours earned, higher grade point averages, and the conferring of credentials.

Definitions of Terms

Academic Orientation Program is the purposeful delivery of instructional services to incoming freshman students and is an experiential learning activity aimed at engaging students as well as assisting them in their assimilation to the college classroom and campus environment.

Attrition is the reduction of credit hours within a term, withdrawing from any coursework, or the total withdrawal from school.

Credential is an outcome of student achievement culminating in the awarding of a certificate, diploma, or degree after successful completion of a program.

Drop-out results from the student completing a total withdrawal and/or leaving the institution prior to completing their program of study, earning their credential, or making a successful transfer to another postsecondary institution.

Dual credit is an educational program that provides high school students with enrollment access to college level, credit bearing courses that can be applied to their credentials once matriculated to a postsecondary institution.

General Educational Development (GED) is an educational program that is designed for adult learners to be able to meet high school graduation equivalency standards and earn their diploma.

House Bill One (HB1) is an act passed in the Commonwealth of Kentucky and signed into law by the Governor in 1997. It resulted in the creation of the KCTCS as a means to provide greater access to citizens who seek postsecondary education and training.

Hybridization is the utilization of direct classroom and laboratory instruction as well as the implementation and use of distance learning technologies such as online coursework, software programs, and other multimedia resources.

IEO model is the theoretical model proposed by Alexander Astin that includes variables such as student inputs (academic background, socioeconomic status, development maturity) and environmental influences (home life, peer relations, campus transition) as complimentary and significant factors that impact outcomes (persistence, achievement, graduation).

Matriculation is the process by which a student begins to prepare for and enters into an educational institution that includes admissions, assessment, and enrollment.

P-12 is an educational system that includes elementary, middle, and secondary grades from pre-kindergarten thru grade 12.

P-16 is an educational system that includes primary, secondary, and tertiary institutions from the pre-kindergarten to the baccalaureate degree level.

Persistence is the process by which a student remains enrolled in coursework from one academic term to the next successive term of enrollment and continues to make satisfactory academic progress toward earning their credential. As an example, fall enrollment continues to the spring term.

Postsecondary institution is a tertiary level education institution that grants college level credentials such as certificates, diplomas, and degrees.

Retention is the process by which a student remains persistent and maintains continuously enrolled into coursework from one academic year to the next and continues to make satisfactory academic progress toward earning their credential. For example, fall enrollment continues to include the spring enrollment and subsequent fall term.

Stop-out is the temporary cessation of coursework whereby a student leaves the institution but may intend to re-enroll at a later date and/or who has left but returned to coursework.

Student engagement is a purposeful action with and reaction to students that is intended to produce a rapport, a sense of belongingness, and an ability for the student to more successfully integrate and assimilate themselves into the college campus.

The *American College Test (ACT)* is administered by the College Board, Inc. and provides student assessment data regarding college and career readiness to various educational and governmental entities as well as other stakeholders.

The *Appalachian Regional Commission (ARC)* is a regional economic development agency that represents a partnership of several federal, state, and local government entities. Established by an act of Congress in 1965, ARC is composed of the governors of the 13 Appalachian states, and a federal Co-chair appointed by the President. Local participation is provided through multiple county area development districts.

The Kentucky Community and Technical College System (KCTCS) is the umbrella organization for the 16 comprehensive community and technical colleges that operate within the Commonwealth of Kentucky and offer certificate, diploma, and Associate degree level credentials.

The *Kentucky Council on Postsecondary Education (CPE)* is a state level agency authorized and charged with the management and operations of public and private colleges and universities throughout the Commonwealth of Kentucky.

The *Kentucky Department of Education (KDE)* is the state level agency that oversees P-12 educational institutions and works collaboratively with other pertinent postsecondary education organizations.

The *Support Educational Excellence in Kentucky (SEEK) program* is designed to provide qualified high school students with the opportunity to earn dual credits that apply to their high school graduation requirements and college level credits for completed courses.

Senate Bill One (SB1) is an act passed in the Commonwealth of Kentucky and signed into law by the Governor in 2009. It seeks to overhaul P-16 educational systems and increase student achievement, teacher performance, and institutional accountability.

CHAPTER 2: REVIEW OF THE LITERATURE

The purpose of this review is to provide a context for the study as it relates to the theoretical framework, historical background, research foundations, and practical use of orientation programming in American colleges. This literature review provides additional contextual information that is found to be relevant to postsecondary student success outcomes such as employability based upon credentials earned, rural settings and economic development, socioeconomic status, and college readiness.

Academic, economic, and personal success are often measured by educational attainment and socioeconomic status in America and around the world. In order for more citizens to gain the benefits of higher levels of socioeconomic success, educational institutions must help establish stronger connections for students between the world of academia and the world of work. Students bring with them a set of characteristics, aptitudes, and abilities that can prove to be an asset to them as well as a liability. It is important that educational institutions realize the input variables that students display such as their academic backgrounds, sociocultural values, and motivations, as well as the potential impact these variables have upon the learning environment and student achievement. The campus learning environment poses significant challenges for many students who may be underprepared academically, are from underrepresented groups, or have little understanding of the expectations and requirements of a college level classroom. In order to increase the opportunity for student success or the expected outcome of the educational experience of attending college, an institution must develop strategies, programs, and services that help each student maximize their potential. Therefore, for institutions that serve predominantly low socioeconomic status,

academically under-prepared, and underrepresented students, it is important that orientation programs and services be made available to all students that will actively engage them in learning about college classroom expectations, the campus environment, and the student development resources that exist for their benefit.

Foundations of Retention Research: IEO Theory and Practice

Student achievement research often focuses upon which variables influence and ultimately provide for success or the lack thereof such variables include academic ability, intrinsic motivation, and environmental resources. With this understanding of internal and external sources of influence, Alexander W. Astin (1984) promulgated a student development theory that suggests what the student brings to the environment; namely the inputs such as knowledge, skills, abilities, and motivations to learn; has a determining effect upon the outputs, such as achievement, which is the result of persistence, level of student effort, and institutional systems. This Input-Environment-Outcome (IEO) model provides a framework by which researchers and practitioners can assess student success outcomes and identify opportunities for the institution to provide support service interventions.

In applying the IEO model to incoming students who matriculate to the community college, practitioners and researchers can review the input variables and then utilize assessment methods to ascertain whether any of the variables have an immediate and lasting effect upon persistence, retention, and completion rates. For this study design, it was necessary to identify the predominant variables that are present within the population that is served by one rural, comprehensive community and technical college. The majority of students are low socioeconomic status as defined by federal Pell grant

eligibility. Additionally, many are academically underprepared as defined by CPE based upon ACT and/or Compass placement scores and reside in an underserved rural area with chronically high levels of unemployment and historically low levels of educational attainment.

Assessment in higher education is primarily defined as obtaining information about how students, personnel, and the institution function (Astin, 1993). Data gathered from assessments can be utilized by teachers, students, and policymakers to better understand the learning that takes places in a particular classroom (Cross, 1999). Most educational research takes place within naturally occurring environments such as the classroom; thus, the IEO model was designed as an effort to control for the methodological problems associated with random assignment of people and environments (Astin & Sax, 1998). Utilization of the IEO model necessarily requires a review of both internal (inputs) and external (environments) variables and their potential influence upon student achievement (outcomes).

Community College Orientation Programs and Student Success Outcomes

Orientation programming for community college students is essential for this population of typically underserved, often lesser prepared, primarily low income, and predominantly first generation students. Such programming empowers students with the knowledge, skills, and abilities to access an array of resources that can help them to have a more successful collegiate experience (Cohen & Brawer, 1996). Enabling students to become self-sufficient and better understand the processes involved with becoming a college student actively engages students and helps them to more effectively navigate the college campus environment. Nearly three-fourths of all undergraduate students

participate in some form of new student orientation or first-year seminar (Barefoot & Gardner, 1993) with the majority of community colleges offering such programs for their students (Gardner & Siegel, 2001; Schroeder, 2003; Stephenson, 1997). The residual benefit expected from offering comprehensive orientation program services is that opportunities for student involvement increase and help to improve institutional retention rates (Gardner & Siegel, 2001). Orientation programs ease the transition for new students into the collegiate environment (Brown, 1997). More specifically, an orientation program can help to improve new student self-esteem, which can be an important predictor of personal and academic achievement (Hickman, Bartholomae, & McHenry, 2000). Providing orientation program services also allows the institution to convey important information about the institution, support systems available, and expectations of students (Twale & Schaller, 2003).

Historical Foundations of College Orientation

Boston College pioneered the new student orientation program in 1888, and for well over a century, colleges and universities have developed, modified, and implemented strategies that are designed to increase student success (Gardner, 1986). In 1972, the University of South Carolina developed the nation's first orientation course that has come to be widely understood as a first-year experience (FYE) program (Schroeder, 2003). Common elements of a first-year experience program include welcome week, in which students are brought into small group and social situations so that they can learn about and from others who are attending the college. In addition, programs often include an orientation seminar, a for credit course to help them make the transition to college, and various enrichment activities throughout the academic year to help students remain

engaged. In order to adequately implement student orientation programming, college leaders must consider the differences in campus environment and student populations served by the community college compared to traditional four-year colleges. For instance, community colleges are primarily non-residential and serve commuter students, which may lessen the sense of campus community that students experience. On the contrary, four-year schools have a vast array of social, athletic, and extra-curricular activities that actively engage students and attempt to assimilate them into the broader campus community. Therefore, community colleges must leverage and maximize the social learning opportunities that will bring a class or cohort of students together to actively involve them in the culture of the campus (Stephenson, 1997). Stephenson (1997) further recognized that new student orientation provided for community college students significantly differs in terms of structure and length of time compared to the orientation programs conducted at traditional four-year schools, but Stephenson contended that even a smaller time frame session such as an afternoon seminar can still be influential.

Community College Retention

Community colleges typically have a significantly higher level of attrition than most four-year degree granting institutions due to the nature of the underprepared population they serve (Provasnik & Planty, 2008). Community colleges include more part-time, non-traditional, minority, first generation, and low-income students, all of which are characteristics that can create more challenges for these students than those experienced by students who are of traditional, full-time, and residential status (American College Testing, 2007).

A proactive approach to increasing institutional interaction with students should engage students from the beginning of their collegiate experience and help them to develop their knowledge base on the academic environment in which they exist, increase their awareness of support resources, and provide them with the social networking opportunities that can become instrumental in their feeling a sense of belongingness and acceptance on campus (Boyer, 1996). Alexander Astin (1984) determined that the persistence of students is greatly affected by the quantity and quality of their interactions with peers as well as campus personnel. Similarly, Tinto (1987) identified several major factors in student departure from school that included academic problems, adjustment issues, inability to clearly set academic and career goals, a lack of commitment, and poor integration within the college campus community. Consequently, retention can be highly affected by enhancing student interactions with campus personnel, which reduces social isolation and feelings of detachment (Tinto, 1987). Rendon (1995) indicated that a critical factor influencing students' decisions to remain enrolled until the attainment of their credentials is making the successful transition to college via orientation and the utilization of academic advising programs, thereby making positive connections with peers and college personnel during their first term of enrollment.

Providing community college students an appropriate orientation to college can be instrumental in helping them to understand the collegiate environment, classroom learning expectations, and social interactions that take place. It also helps students become informed about the multitude of support resources available. Enrollment management services typically include a new student academic orientation program, which is a critically important element often utilized to effectively increase student

persistence rates. Retention services at the postsecondary level are intended to improve the rates of student persistence so that students are able to successfully complete their programs of study. An institution's retention rate is often perceived as a reflection of the quality of education received and can significantly influence academic program rankings (Wyman, 1997).

Retention rates can also serve as a benchmark utilized to secure external funding and for the allocation of state resources as an indicator of institutional effectiveness (Borrego, 2002; Sydow, 1998). Although there is a tremendous need to reduce attrition and student drop out, community college retention studies have been minimal (Derby & Smith, 2004). The perception that community colleges are revolving doors of opportunity led Derby and Smith (2004) to address this viewpoint by explaining how diverse the needs are of the student body of a typical community college and the need for orientation programs. According to Hossler (2005), most colleges "do not conduct studies of the efficacy of retention intervention programs" (p. 7); therefore, it is important for colleges to assess their practices. Each institution should provide for an evaluation process for each program that is aimed to increase student retention and academic achievement. Post-secondary institutions have understood from historical precedence that offering a comprehensive academic orientation program can help new students acclimate to the college environment and thus become more likely to integrate themselves into the collegiate culture (Gardner, 1986).

Gardner and Siegel (2001) noted the first few weeks of the freshman term are critical and influence academic success and persistence among first year students. It is during this first term that students develop independence, social networks, intellectual

habits, and the skills and knowledge needed to be more successful. Institutional activities that facilitate personal, academic, and social development can increase student achievement (Barefoot, 2000). The community college student body benefits from such innovative orientation programs that can help them to develop a sense of trust, acceptance, and appreciation of diversity (Cook, Cully, & Huftalin 2003). Some institutions do not take student retention seriously as they should as evidenced by an insufficient number of programs to increase it (Tinto, 1999). With an average attrition rate of 41% from first to second year and a 34% persistence-to-graduation rate, it is necessary for all postsecondary institutions to focus more on student success and effective predictors of student retention (American College Testing, 2010). Zwerling (1980) states "to reduce significantly the staggering attrition at the average community college, it appears necessary to shift our focus from what is wrong with the student to what is wrong with the institution" (p. 56). He suggests that institutional programs and services can have a profound impact on student persistence and retention. Such programs may include academic achievement recognition, academic advising, guidance counseling, and sponsoring orientation for new students. Kay McClenney identified the first term of enrollment as the critical window of time for community colleges to reduce student attrition (National On-Campus Report, 2005). Marina & McGuire (2008) suggest the moment that an individual begins to develop a relationship with a college or university is important for first year student success.

Retention rates at community colleges are significantly lower than at four-year institutions. The Mohammadi (1996) report indicates that only about 50% of community college students return for their second year of study, whereas approximately 67% of

four-year students return for the second year of study. As stakeholders examine the important role of the community college in the post-secondary education arena, they must recognize the overwhelming data that indicate approximately 44% of all undergraduates and 47% of first-time freshman enrolled at community colleges in 1997 (Vaughn, 2000). It is apparent that more research will need to be conducted that focuses upon the community college experience and how postsecondary institutions can develop services, allocate resources, and employ strategies to help retain their students to the successful completion of their studies. Pascarella and Terrenzini (1998) state that insufficient research is being conducted to identify variables influencing retention of the burgeoning community college student population, which is nearly half of all first-time college students in America. Over the past two decades, college student retention has received increased attention and grown in importance; however, the majority of retention research has been dominated by four-year college studies, and the research on community colleges is sparse (Walters & McKay, 2005). Furthermore, the majority of retention research has been focused on traditional-age students in the residential four-year college settings (Bailey & Alfonso, 2005). This is particularly problematic for community colleges, which serve students who differ significantly from those in four-year institutions.

Successful Transition to College

Students have been and continue to be offered a myriad of services and activities by their institutions that include but are not limited to a new student orientation, a transition to college course for first-time students, academic advising, supplemental and tutorial support services, as well as student life activities and health services. All such efforts are intended to help students make a successful transition into college by helping

them to establish positive and productive relationships with peers, professors, and other campus personnel (Robinson et al., 1996). Researchers such as Astin (1993), Pascarella and Terrinzini (1991) and Tinto (1993) reported that as students become more satisfied and involved with the campus and academic community, they are more likely to remain enrolled. Orientation and freshman seminars were found to be the most effective student success programs to assist new college students (Fidler & Hunter, 1989). Community college students who enroll continuously without stopping out are more likely to transfer to a four-year college and earn an Associate degree (Adelman, 2005; Offenstein & Shulock, 2010). Credit accumulation, particularly in the first year, is associated with completion of credentials and transfer, and is considered a good early indication that students are on track to meet these goals (Calcagno et al., 2006; Chen, 2005; Moore & Shulock, 2009; Roksa & Calcagno, 2008). Therefore, higher education institutions have an incumbent responsibility and moral obligation to provide student success programs such as orientation (Upcraft & Farnsworth, 1984).

New student orientation courses have often been referred to as “the most frequently researched and empirically well-documented course in the history of higher education” (Cuseo, 1997, p. 3). Researchers are conflicted in their level of agreement about the effectiveness of orientation program courses on student retention. Some researchers suggest that those who do not participate in orientation achieve at rates comparable to their peers who do participate (Bolender, 1994; Friedlander, 1995; Keenan & Gabovitch, 1995; Wilkie & Kuckuck, 1989), while others report mixed results (Buchanan, 1993; Fonte, 1997; Habing, 1999; Tobolowsky, 2005). However, the majority of studies have indicated that orientation programs promote a campus culture of student

persistence, retention, and graduation, as well as improved academic achievement levels and increased use of support services (Busby, Gammel, & Jeffcoat, 2002; Folger, Carter, & Chase, 2004; Glass & Garret, 1995; Ryan & Glenn, 2004; Willford, Chapman, & Kahrig, 2001). Upcraft (2003) suggests that interactive programming, active engagement of students, and the utilization of technology can help institutions prepare the new students of the 21st century to better integrate into the campus environment and be more prepared to understand what institutional programs, services, and support systems are available to facilitate higher levels of student achievement.

Limitations of Research on Orientation Programs

While numerous studies have reported positive student success outcomes associated with student participation in orientation programs, nearly all have methodological limitations (Green, 1998). The limitations provide a lack of clarity and an inability to conclude with pronounced confidence that the orientation programs have a direct and positive impact on student success. For example, Pascarella, Terrenzini, and Wolfe (1986) found that student background and other non-academic characteristics are difficult to control for statistically. Bean and Eaton (2001) suggest that individual psychological attributes also confound methodological design and analysis. Berger and Milem (1999) indicated that the students most likely to persist are those whose values and belief systems facilitated behaviors that were consistent with those that prevailed on campus. Attinasi (1989) underscored the importance of making social connections with peers and faculty members. Correspondingly, Kenny and Stryker (1996) found that social adjustment to college for racially and ethnically diverse students was largely a function of their family support networks. Psychological contract theory (Rousseau, 1995) purports

that students have fixed beliefs about the nature of relationships with peers and campus staff, and London (1989) reported that first-generation students stand on the periphery of two cultures that often create conflict, their friends and family being juxtaposed with the campus community. Clearly, these studies reveal the complexity of research on student orientation programs. Therefore, additional study is needed to further understand the personality dynamics involved with individuals, the importance of social interactions within the campus community, and support systems that influence students. As the community and technical college system continues to expand enrollments and effectively becomes a preferred gateway to post-secondary education and training in America, stakeholders will need to find new and innovative ways to improve student persistence by providing support service programming that is meaningful, purposeful, and engaging and can be empirically evaluated to help prescribe best practices.

The Structure of Rural Community Colleges and Communities and Their Influence on Student Success Outcomes

Rural America faces many daunting challenges that include but are not limited to geographical isolation, demographic changes within the local population, and the effects of globalization which results in the loss of localized manufacturing. In order for rural communities to be economically viable and self-sufficient in the 21st century, a shift of focus will need to be placed upon a knowledge and skills based economy, one that will allow workers to be able to train, qualify, and obtain gainful employment within their regional markets. Community colleges will be asked to provide more and better training programs that will necessarily help students achieve higher levels of economic and personal success.

Being able to address the challenges of rural community college students will require that policymakers more specifically identify a rural college classification. In 2005, the Carnegie Foundation for the Advancement of Teaching provided multiple classifications for colleges offering the Associate degree, which had previously been a single category. There are at least 922 rural community college campus locations across America (Hardy & Kastinas, 2006). The newly created public college categorization includes rural, suburban, and urban serving institutional designations. Enrollments are equitably distributed among rural, suburban, and urban-serving institutions with approximately 34 percent of the nation's community college students attending rural colleges, 32 percent attending suburban community colleges, and 34 percent attending urban community colleges (Hardy, 2005).

Cohen (1978) reported that faculty and staff in small rural community colleges often have multiple roles and are involved in the administration of programs. This difference in role may have important considerations as economic development officials look to the community college to improve local job markets and the employability of their constituents. Small rural districts enroll fewer students, which may require personnel to multitask and serve in various roles (Hardy, 2005).

Policy implications and resource needs exist when rural community college students have significantly increased challenges as a result of lack of on-campus child care and distance education programs (Katsinas, Alexander, & Opp, 2003). Additionally, it is important to note the demographic and enrollment characteristics of community college students. White students account for 74 percent of all rural community college enrollments, nationally. African-American students make up the largest minority group in

rural community colleges, while Hispanic students comprise only seven percent of students attending rural community colleges. Enrollment status and gender also are important considerations as policy initiatives are developed to propel the community college forward into the 21st century. Specifically, enrollment status patterns clearly illustrate that rural community colleges serve more full-time students, whereas urban community colleges have a smaller percentage of full-time students. Furthermore, 55 percent of the full-time students at rural community colleges are female. Female students earn 63 percent of all Associate degrees (Hardy, 2005). Rural colleges, much like their suburban and urban counterparts, offer similar support service programs that are designed to assist students with matriculation and graduation. Gender also is an important factor to be considered as policies, programs, and resources are implemented to assist rural community college students.

The typical rural community college differs from most other institutional categories in a multitude of ways. For example, rural colleges are less likely to offer a more diverse and comprehensive array of educational programs and student services. In addition, they are more likely to rely upon state appropriations and more often than not have a higher cost per student (Roessler, 2006). With limited resources and an inability to generate large scale revenues as proposed by Katsinas, Alexander, and Opp, 2003), it may become an important consideration that additional state and federal funds are allocated in the forms of vouchers, waivers, or block grants to help ease the financial burdens of these institutions.

Students experience impediments to achieving access. It is known that sociocultural influences impact student's academic aspirations. Stage and Hossler (1989)

reported that the levels of the father's and mother's educational attainment and household income are important factors that affect the parents' educational expectations for their children. The Appalachian Access and Success (AAS) study (Spohn, Crowther, & Lykins, 1992) conducted in the rural Appalachian region of Ohio examined the educational aspirations of rural Appalachian youth. Results of the AAS study indicated that costs of postsecondary education when contrasted with the ability to obtain a job and earn an income through employment, coupled with the lack of information that many high school seniors had about the availability of financial aid, influenced the student's decision not to matriculate after graduation.

The Appalachian region has historically been identified as an economically disadvantaged area for various reasons (Gebremariam, Gebremedhin, & Schaeffer, 2011; Obermiller & Maloney, 2002; Wood, & Bischak, 2000). Family and per capita incomes are significantly lower than those reported for other regions within the United States. Higher levels of unemployment and highly concentrated areas of poverty in the Appalachian region have resulted from job losses in the mining, timber, and manufacturing industries. Increased rates of dependency on federal and state supplemental income have resulted in generational poverty. The rates of college completion and degree attainment in this area are lower than the state and national averages (U.S. Census, 2000). Lower high school completion rates and correspondingly low college attendance rates have been related to the perception of the unimportance of educational attainment to economic conditions (Bickel, 1989). Eighty percent of the respondents to a 1991 survey of high school seniors from the Appalachian area of Ohio stated they aspired to go to college. Conversely, only about one-third of the high school

seniors in the area were likely to matriculate to college after graduation. (Spohn, Crowther, & Lykins, 1992).

Socioeconomic Status and Student Success Outcomes

Community colleges have and continue to play a vital role in expanding access to postsecondary education and training for many disadvantaged and underrepresented students. A survey of first-time college students in 2003–04 revealed that nearly two-thirds of first-time college students with family incomes of $32,000 or lower started at a two-year or less-than-two-year college rather than matriculate to a four-year institution (Berkner, Choy, & Hunt-White, 2008). However, students that begin their studies at community colleges often face long odds of actually earning a college credential. Only about one-third of first-time students who entered community colleges in 2003-04 earned a postsecondary credential within six years (Radford, Berkner, Wheeless, & Shepherd, 2010).

A myriad of multi-dimensional factors such as increased educational attainment across the globe, higher salary returns for more education (Rouse, 2007), and financial challenges being placed upon educational institutions and families have joined to alter the focus of higher education policy beyond providing college access to the more important task of increasing completion rates (Kentucky CPE, 2009). Governmental leaders, policymakers, and other stakeholders are especially concerned with closing the gap in completion rates between disadvantaged students and their more advantaged peers. The high school dropout rate in 2007 among persons 16- 24 years old was higher in lower-income families (16.7%) than higher-income families (3.2%) (Chapman, Laird, Ifill, & KewalRamani, 2011). Consequently, the Lumina Foundation for Education has set the

specific goal of increasing the percentage of college graduates from 39% to 60% by the year 2025, a goal that will require significantly increasing the rates of persistence, retention, and credential completion among a diverse set of students who have typically faced obstacles to achieving success in college (Lumina Foundation, 2013). The Gates Foundation has also launched a postsecondary student success initiative designed to double the number of low-income young adults who earn a postsecondary degree or credential with employability value by age 26. The Gates Foundation and the Lumina Foundation understand that community colleges are the key to achieving these goals and these colleges provide enhanced access to higher education for disadvantaged students to include open admissions, closer geographic proximity, lower cost tuition, as well as multiple delivery formats such as day, evening, weekend, and distance learning technology programs. Research clearly indicates that more disadvantaged and underrepresented students that attend community colleges complete and transfer at lower rates than do those students who are significantly more advantaged (Bailey, Jenkins, & Leinbach, 2005; Goldrick-Rab, 2010).

There are some areas of rural America that enjoy higher levels of prosperity, but the vast majority suffer from economic isolation, decline, and remain mired in persistent poverty. Stauber (2001) reported the rural middle class continues to show shrinkage as young families leave their home area in search of jobs and opportunity elsewhere. Perceptions held by students about their families' economic stress and personal financial constraints affect student's emotional stability and academic achievements (Mistry, Benner, Tan, & Kim, 2009). Globalization applies external market pressures upon local rural economies, which continue to show decline and consolidation of their agricultural

and manufacturing sectors, and thus, job loss (Fluharty, 2004). Incomes tend to be lower and poverty rates higher in rural areas as compared to urban areas (Miller & Rowley, 2002). If rural communities and rural colleges are to be able to survive the economic storm they face, then the 386 counties across America that are categorized as persistent poverty counties (U.S. Department of Agriculture, 2004) must facilitate entrepreneurship and build self-sustaining and more diverse economies that encourage families to want to build a future and stay in these home communities (Dorr, 2006). Schools in low-SES communities suffer from high levels of unemployment, migration of the most highly qualified teachers, and low educational achievement (Muijs et al., 2009). Since rural communities and rural colleges share a mutual bond and a common future, they work in collaboration to grow and develop their human resources, educational capital, and economic potential (Cohen & Brawer, 2003).

Developing a cohesive and comprehensive community partnership will not be easy. David Pierce, former CEO of the American Association of Community Colleges said, “The work of community revitalization is uncertain and afflicted by the very fragmentation that we seek to correct” (Pierce, 1996). Various factors such as the local social, political, and economic environments influence the outcome of such efforts. Rubin et al. (2005) made several recommendations to improve the community colleges in rural Mississippi: 1) build human capital; 2) nurture social capital, and strong, healthy communities; 3) work regionally rather than in isolation; 4) find niche opportunities; and 5) promote a culture of entrepreneurship. Several agencies, groups, and entities may exist to provide community and economic development, but none are more equipped to address all five strategic areas of importance than the community college.

Despite the pivotal role of community colleges, federal funding is significantly less in areas served by rural community colleges. Fluharty (2006) described data found within *The Consolidated Federal Funds Report* for 2001 on U.S. government expenditures by program and county indicating that rural areas received approximately $5.5 billion less than urban areas annually on a per capita basis, thus creating a persistent disadvantage to rural areas. Similarly, in 2001, as a percent of all federal funds per capita, there was a 13 percent difference between rural and urban America in the amount of direct payments to individuals (Reeder & Calhoun, 2002). This differential in funding greatly diminishes the capacity for rural communities to build their infrastructures and to grow their local economies. This long term financial disadvantage will result in a continued inability for rural communities to create a more vibrant, self-sustaining, and attractive community in which residents can build successful lives and futures. A widely accepted, comprehensive view of the community college mission "is to provide postsecondary programs and services that lead to stronger, more vital communities" (Vaughn, 2000).

Remediation and Student Success

Community colleges face many daunting challenges in helping their service area residents increase their educational attainment. The rural areas of eastern Kentucky have much lower levels of Bachelor's degree attainment as compared to other regions throughout the Commonwealth of Kentucky (U.S. Census, 2000). Educational assessment and placement is particularly important at community colleges because of their open admission policies and significant outreach to students from underserved groups, which often means that a much larger percentage of their students take

developmental education courses than do those students at four-year institutions. (Provasnik & Planty, 2008).

College readiness is a critically important element that can help to improve student success outcomes at the community college level. Data reported from the Kentucky CPE (2010) indicate that in the Cumberland Valley Area Development District, which in centered in southeastern Kentucky, although much improved from previous reports, nearly 45 percent of students are not college ready in at least one or more subjects. Other rural area development districts throughout Appalachian Kentucky such as the Big Sandy, the Kentucky River, and the Lake Cumberland districts also show significant improvement since 2002, but still nearly half of all students fail to meet college readiness benchmarks in at least one subject area of study (Kentucky CPE, 2010).

Attewell, Lavin, Domina, & Levey (2006) reported data from the National Education Longitudinal Study (NELS) in 2002 which indicated that 68 percent of students successfully completed the remedial writing courses in which they enrolled and 71 percent were successful in completing their remedial reading courses. Students had much less success with math courses with only 30 percent passing all of the math developmental courses in which they enrolled. The “Achieving the Dream: Community Colleges Count”, a national initiative funded by the Lumina Foundation, reported in 1996 that 59 percent of students in the colleges participating in the initiative were enrolled in at least one remedial education course during the three academic years monitored.

The degree completion rate for remedial students is low. Specifically, less than one-quarter of community college students in the NELS report who were enrolled in remedial course work successfully earned a degree or certificate within eight years of

their matriculation to college. In stark contrast, nearly 40 percent of community college students in the NELS study who did not enroll in any remedial courses successfully completed a credential within the specified timeframe. Students who enter community colleges with remedial needs face significant academic challenges, and reports suggest that remediation is not effectively able to close the skill gap. However, it is quite possible that remedial students would have even lower success rates if these remedial instructional services were not made available.

The benefits of remedial education need close scrutiny, with emphasis on their evaluation in relation to their expense to the state, the institution, and more importantly to the student. Breneman and Haarlow (1998) reported that colleges spent over one billion dollars annually on remedial education program services at that time. Strong American Schools (2008) calculated the annual cost of remediation services at 1.9 to 2.3 billion dollars at community colleges. The substantial financial and emotional costs to the students are even more consequential to many students who are enrolled into remedial education programs. Students often accumulate loan debts and must utilize their limited financial aid eligibility not earning credits toward a degree. In real-time, taking remedial courses lengthens the time required to complete a credential, and factors that lengthen the time to degree also tend to reduce the likelihood of degree completion (Horn & Nevill, 2006; Horn & Carroll, 1996). A recent survey of remedial students found that a majority believed that they were academically prepared for college courses (Strong American Schools, 2008). This astonishing gap between their understanding of their own skills and the disheartening results of assessment tests such as the Compass may cause students to become discouraged, give up, and not enroll into college (Deil-Amen & Rosenbaum,

2002). Faculty and academic advisors often cooperate with students in an effort to avoid remediation, utilizing administrative overrides and consent of the instructor exceptions that can often be found within academic guidelines (Perin, 2006). The long term implications of such overrides warrant further empirical study.

Senate Bill One (SB1) in Kentucky, which was passed in 2009, calls for continuous and improved achievement levels for P-12 students, with an increase in students being college and career ready. For example, the Cumberland Valley Area Development District, which is located in eastern Kentucky, has schools that have significantly decreased the percentage of students who were not college ready in at least one subject from 53.7% in 2002 to 44.5% in 2008 according to the Council on Postsecondary Education in Kentucky (Kentucky CPE, 2010). Data clearly show that students made substantial improvements in Reading, Mathematics, and English from 2002 to 2008. The subject area in which the most gain in student achievement was demonstrated was Reading, which showed a decrease in the percent not ready for college in 2002 of 26.9% to only 16% by 2008. English and Math saw a decrease in the percent of students not ready between 2002 and 2008 of 7.9% and 7.8%, respectively, (Kentucky CPE, 2010).

The Kentucky Department of Education commissioned reports to be prepared by the Office of Knowledge, Information and Data Services for 2010 and 2011 (Kentucky Department of Education, 2010, 2011). These reports indicate improved rates of college and career readiness throughout the rural areas of Appalachian Kentucky, but many districts continue to struggle to make it to the next level of readiness. These data reports reflect the instructional programs and student support provisions of Senate Bill One, and

although gains are being made, it is evident that fluctuations in performance will occur within districts and across the region as longitudinal data are gathered to fully assess the impact of SB1.

Reducing the need for remediation is well underway in various communities across America as various locales and community colleges are developing collaborative dual enrollment partnerships to increase student achievement. South Texas College, which is located in McAllen, Texas, serves a large number of Hispanic students, whom are traditionally underrepresented in college going rates**.** South Texas College has a dual enrollment of 12,000 students in 68 partner high schools and has been recognized by Achieving the Dream as being among the most connected community college to local high schools in the country. Through dual enrollment programs, students can earn college level credits that apply toward their Associate Degree, which in turn can improve student motivation, persistence, and degree completion. Since 2004, the remediation rates for incoming students dropped from 45 percent to 17 percent according to Shirley A. Reed, the President of South Texas College, which predominantly serves a lower income, first-generation student population (Fain, 2013).

In Kentucky, many high school students are offered dual credit enrollment programs. Some students take general education courses that are taught on-site at their high school and receive college credits, whereas other students complete career and technical education courses at their local Area Technology Center. In an effort to increase levels of student engagement and improve the assimilation to the college process, students can also take courses on the college campus with other regular adult learners such as in the SCC's Support Educational Excellence in Kentucky (SEEK) Program. In

most cases, students receive a full tuition waiver, or they may have to pay a nominal fee and/or a reduced tuition rate.

CHAPTER 3: METHODOLOGY AND RESEARCH DESIGN

This study was designed to investigate the impact of a new student Academic Orientation Program upon student success as measured by grade point average, credit hours earned, persistence rates, retention rates, and credentials conferred. The students in this study were all first-time, full-time enrolled freshman students attending a rural, 2-year community college in Kentucky (referred to as the pseudonym, Community College) who matriculated in the Fall 2010.

The Commonwealth of Kentucky is primarily a rural state with three large urban areas that include Covington, Lexington and Louisville, but the vast majority of the geographic land area is either rural, mountainous or both in the case of the Appalachian region of eastern Kentucky. The Postsecondary Improvement Act of 1997 created the Kentucky Community and Technical College System (KCTCS), which has given rise to significant increases in the college enrollment rates across the Commonwealth and enrolls more than 100,000 students (Kentucky CPE, 2012). The Kentucky Council on Postsecondary Education (CPE) reports that the 2009 KCTCS first-time freshman cohort achieved a system-wide retention rate of 52.8% of students that persisted and returned to the same institution for the fall 2010 academic semester. Moreover, 3.7% of students transferred to other institutions, and 43.5% did not continue their enrollment at any institution.

The Community College is one of the sixteen comprehensive community and technical colleges that exist within the KCTCS. The Community College in this study is typically ranked as having the third largest college enrollment within KCTCS with a fall 2011 enrollment of approximately 10,000 students (Kentucky CPE, 2012).

The Community College serves the Cumberland Valley Area Development District and the Lake Cumberland Area Development Districts, both of which are situated in southern and eastern Kentucky and have a rural population that is predominantly low income with recorded lower college attainment levels than the state and national rates. Students are often underprepared for the transition to postsecondary education. Given the large number of students that matriculate to this Community College, it has an important role to play in helping the Kentucky Council on Postsecondary Education (CPE) meet its goal of increasing educational attainment levels across the Commonwealth. Not only will the Community College help increase student access to postsecondary education and training, but the institution also will need to deliver specialized programs and services to increase retention, credential completion, and transfer rates for students. The Kentucky Council on Postsecondary Education (CPE) reports that the 2009 first-time freshman cohort at this Community College achieved a retention rate of 56.9% of students that persisted and returned for the fall 2010 academic semester, whereas 3.3% of students transferred to other institutions, and 39.8% did not continue their enrollment at any institution.

Sample

Sampling Method

Every student that matriculated to the Community College in the fall 2010 academic semester was provided the opportunity to participate in an Academic Orientation Program. Students registered to attend an available orientation session. This study collected data from the Office of Institutional Research and Effectiveness on a sample of students who were designated and enrolled as first-time, full-time status

students during the fall 2010 term. No part-time students were included in the sample since they do not have the same academic course load as full-time students. No returning students during the fall 2010 term were included in the sample.

Final Sample

There were a total of 296 designated first-time, full-time equivalent students that matriculated to the Community College in the fall 2010 academic semester. There were 105 students (35.5%) who participated in the Academic Orientation Program, while 191 (64.5%) students did not participate in the program. The study population is comprised of 200 (67.6%) females and 96 males (32.4%). There were 49 students (16.6%) that were not Pell grant eligible, and 247 students (83.4%) that were Pell grant eligible. There were 200 students (67.6%) that were college ready based upon their entering reading assessment scores, and 96 students (32.4%) that were not college ready in Reading. Characteristics of the student sample are displayed in Figure 3.1.

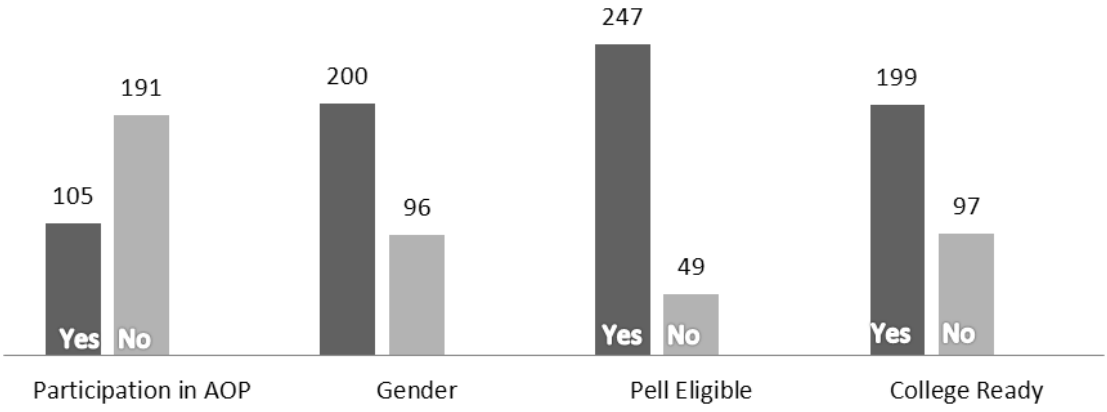

Figure 3.1. Academic Orientation Program Descriptive Student Data, Fall 2010

The Academic Orientation Program

All new students who matriculated to the Community College in the fall 2010 were provided an opportunity to participate in the Academic Orientation Program (AOP), but the college did not require that new students participate in the Academic Orientation Program. The new student Academic Orientation Program involves five integrated components such as welcome and registration, student success, web page navigation, student self-service software utilization, and academic advising. The Academic Orientation Program is an experiential learning activity that necessarily engages students with personal interactions, guided practice with software systems, and direct student support. The AOP is conducted for a total of two instructional hours.

Upon arrival, students are greeted with a welcome and offered registration services in order to actively participate in the Academic Orientation Program. Students are asked to verify their intended program of study, and a review of their student assessment scores is completed. Once the assessment scores are interpreted, any and all course recommendations are made and recorded on their registration card. The students are provided a printed copy of their program plan of study for future reference with their assigned faculty advisor. Students are provided assistance with logging into the campus computer system by orientation team members. The orientation program is conducted in the computer lab classroom and has an enrollment capacity of 20 students. There are typically 3-5 members of the orientation program team that work in collaboration to support new students and their assimilation to the collegiate environment.

Students are provided direct instruction on strategies for student success via PowerPoint presentation for visual appeal and with interpersonal communication with the

orientation team. The student success presentation includes topics such as study skills, time management, stress management, understanding classroom expectations, facilities, resources, student services, as well as campus clubs and organizations. Students are actively engaged with college website navigation on the computers that helps them to identify and understand the various campus resources and services that are available. The social interaction between students and with orientation team members is intentional and is aimed at assisting them to assimilate into the campus environment while developing a greater sense of belongingness.

Students continue to receive direct instruction and learn how to utilize the various software systems that are employed by the college such as email, PeopleSoft, and Blackboard. Students are able to set up their username and password access with direct support from orientation team members. The orientation program instructor actively demonstrates how to view and use the PeopleSoft student center so that students can understand its features and how they impact student access to financial aid information, course registration, advisor contact information, and program planning. Students actively employ the computer system and learn how to search for courses that were identified during the academic advising segment. Students initiate usage and learn how to select and complete an enrollment transaction for a desired course. Students complete their search and enrollment transactions and report to the orientation leader, who prints two copies of the schedules and provides the student an opportunity to review their class pattern, the course load, and ask additional questions about their program plan of study.

Upon successful completion of the new student Academic Orientation Program, students depart with a folder of resource information that can be referenced and utilized

to identify support systems and campus personnel. During the new student orientation program, students receive direct instruction, are actively engaged with experiential learning, interact socially with their peers and college personnel, and begin the important process of acclimating to the college environment.

Variables and Measures

Dependent Variables

The dependent variables measured for this study are indicators of academic success and include the student's cumulative grade point average, the number of credit hours earned, persistence, retention, and the number of college credentials conferred to the student.

Independent Variables

The independent variables that were utilized for this study include the following:

1. participation (1) or non-participation (0) in the Academic Orientation Program,
2. socioeconomic status as determined by federal Pell grant eligibility, (0=Economically disadvantaged, 1=Not Economically disadvantaged),
3. college readiness as determined by reading placement score assessment, (0=Not college ready, 1=college ready).

Reliability

The data utilized in this study were collected from the Office of Institutional Research and Effectiveness and therefore are the official data source for information utilized in institutional planning and program operations. Given the high stakes of several variables in this study, it is assumed that the data were collected and reported accurately.

Data Collection

The data were collected electronically from the institutional database at Community College and reported in spreadsheet format with non-identifiable student information to maintain student confidentiality and safeguard against research bias. This spreadsheet was generated by the staff from the Office of Institutional Research and Effectiveness, who shared the database once it was anonymous with the researcher.

Data Analyses

This study utilized descriptive and inferential statistics to provide an understanding of the impact that participation in a new student orientation program has on student achievement. Descriptive data about the sample included important information such as gender, academic readiness, socioeconomic status, attrition, persistence, retention rates, cumulative grade point average, credit hours earned, and credentials conferred.

Two independent groups, those who participated in orientation and those who did not participate in orientation, were compared utilizing independent samples t-tests to determine if there were significant differences in the mean levels of the indicators of academic success utilized in this study. Indicators of academic success included cumulative GPA, total credit hours earned, persistence, retention, and credentials earned. Additionally, the study used simple linear regressions on these measures of academic success. Predictor variables included orientation participation, academic readiness, and socioeconomic status. A p-value threshold of 0.05 was implemented to determine significance.

Limitations of the Study

This study was limited to measuring the effect of one orientation program at one rural community and technical college. Thus, generalization should be made with caution. The study was further limited to two academic years. Such a short time period does not capture all students that do not persist or retain to program completion. Moreover, credentials often take longer than two years to earn. Third, indicators of academic success used in this study may be influenced by variables not controlled. For example, GPA may be influenced by the types of courses taken and the grading practices of the instructor. Other confounding variables may include but not be limited to student time spent studying, work hours, and economic hardship. All participants were volunteers and they may have differed from a non-volunteer group and could potentially have an effect on student outcomes. Finally, the relatively small sample may render the study underpowered for the multivariate analyses, thus having potentially reduced ability to find significant relationships that exist among variables.

Role of the Researcher

This Academic Orientation Program (AOP) was developed in response to a need to engage students in experiential learning activities that would help them to learn more about the Community College and also to build their skills with the use of various technologies that critical to students such as email, PeopleSoft, and Blackboard.

The researcher in this study was also the lead developer of the AOP and provided instructional services in order to create a curriculum format by which others might be able to follow as they lead other orientation session. All data was collected from the Office of Institutional Research and Effectiveness to eliminate bias. The appropriate

statistical tests were also employed to demonstrate significance of the data without potential researcher bias.

CHAPTER 4: RESULTS

The primary objective of this study was to ascertain the value of one new student orientation program at a rural community college in Kentucky as a student development service. Specifically, the study assessed the impact of this program on retention rates and other measures of student success. Descriptive, inferential, and correlational statistics were utilized to determine the following results. This chapter details the results of the study. There were a total of 296 designated first-time, full-time equivalent students that matriculated to the rural community college in the fall 2010 academic semester. There were 105 students (35.5%) who participated in the Academic Orientation Program, while 191 (64.5%) students did not participate in the program (see Table 4.1).

Table 4.1

Participated in Academic Orientation Program

	Frequency	Valid Percent
Valid		
No	191	64.5
Yes	105	35.5
Total	296	100.0

Differences in Academic Success

Question one focused on differences in five indicators of academic success between students who attended AOP and those who did not. An independent samples t-Test was performed to compare the rate of persistence for students who participated in the Academic Orientation Program (AOP) to those who did not. Levene's Tests of

Homgeneity of Variance were run prior to all means comparisons in this study, and the appropriate row of results were reported based on whether the assumptions was met or not. A mean difference of 0.09 was found between the two groups of students. Of students who participated in the AOP, 93% persisted, compared to the 84% persistence rate for students that did not participate in the program. This difference of 9% is statistically significant; t (281)=-2.64; p=.009.

There was a range of majors for the students included in the study. The program plans varied from Accounting to Undecided, with a multitude of majors in between. Nursing was the most frequently designated major with 66. Associate in Arts had 45 declared majors. Twenty-one undecided students, 15 declared Criminal Justice as their major, 11 were Medical Assistant majors, and there was 10 Associate in Science majors. All other majors listed had 10 or fewer declared students (see Table 4.2).

Table 4.2

Program Plan of Study

Valid	Frequency	Valid Percent	Cumulative Percent
Accounting	1	.3	.3
Respiratory Therapy	7	2.4	2.7
Associate in Arts	45	15.2	17.9
Associate in Science	10	3.4	21.3
Auto Technician	4	1.4	22.6
Business Admin	6	2.	24.7

Table 4.2 (continued)

Chef	1	.3	25.0
Clinical Lab Tech	2	.7	25.7
Collision Repair Tech	5	1.7	27.4
Combination Welder	7	2.4	29.7
Computer Technician	7	2.4	50.7
Construction Tech	1	.3	30.1
Construction Mason	1	.3	30.4
Cosmetology	4	1.4	31.8
Criminal Justice	15	5.1	36.8
Culinary Arts	1	.3	37.2
Dental Hygiene	6	2	39.2
Early Childhood	7	2.4	53.1
Education	8	2.7	41.9
Electrical Tech	7	2.4	44.3
GOTS Technical	7	2.4	45.6
HVAC Technician	8	2.7	48.3
Medical Assistant	11	3.7	59.9
Medical Info. Tech	9	3.1	56.2
Nail Technician	1	.3	60.2
Nursing	66	22.3	82.5
Occupational Therapy	1	.3	82.8
Pharmacy Technician	2	.7	83.5

Table 4.2 (continued)

Physical Therapy Asst	6	2	85.5
Practical Nursing	7	2.4	87.9
Radiography	8	2.8	90.7
Small Business Mgt	1	.3	91
Surgical Technician	5	1.8	92.9
Undecided	21	7.1	100
Total		296	100

The mean rate of persistence for students who participated in the orientation program was .93 compared to the rate of .84 for those who did not. A statistically significant difference of .09 was found as displayed in Table 4.3.

Table 4.3

Mean Participation and Persistence

Participated in Orientation	N	Mean	Std. Deviation	Std. Error Mean
Persistence				
No	191	.84	.370	.027
Yes	105	.93	.251	.024

An additional independent samples t-Test was performed to compare the rate of retention for students who participated in the Academic Orientation Program (AOP) to those who did not. A mean difference of 0.11 was found between students who

participated in the AOP (m=73%, SD=.49) and those who did not (m=62%, SD=.44). As noted in Table 4.4, this mean difference was significant; t(231) =-1.98, p=.049).

Table 4.4

Persistence Independent Samples T-Test

t-test for Equality of Means					
	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Persistence					
Equal variances not assumed	-2.638	281.293	.009	-.096	.036

The mean rate of retention for students who participated in the orientation program was .73 compared to the rate of .62 for those who did not. A statistically significant difference of .11 was found as displayed in Table 4.5.

Table 4.5

Mean Retention

Participated in Orientation	N	Mean	Std. Deviation	Std. Error Mean
Retention				
No	191	.62	.486	.035
Yes	105	.73	.444	.043

An independent sample T-test was performed to determine differences in Retention. Table 4.6 indicates no significant differences were found between group means.

Table 4.6

Retention Independent Samples T-Test

	t-test for Equality of Means				
	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Retention					
Equal variances not assumed	-1.976	231.031	.049	-.110	.056

A third independent samples t-Test was conducted to determine if there was a significant difference in the rates of credentials earned between those students who participated in the AOP and those who did not. A mean difference of 0.02 was found to occur between students who participated in the AOP and those who did not, with rates of credentials earned of 14% and 12%, respectively. Results indicated no significant difference; $t(294)=-.687, p=.493$ (see Table 4.7, Table 4.8).

Table 4.7

Mean Credentials

Participated in Orientation	N	Mean	Std. Deviation	Std. Error Mean
Credential				
No	191	.12	.320	.023
Yes	105	.14	.352	.034

Table 4.8

Credential Independent Samples T-Test

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Mean
Credential							
Equal variances not assumed	1.857	.174	-.687	294	.493	.028	.040

A fourth independent samples t-Test was conducted to determine if there was a significant difference in the mean number of credit hours earned between those students who participated in the AOP and those who did not. A mean difference of 0.817 was

found to occur between students who participated in the AOP and those who did not, with mean credit hours earned of 23.771 and 22.954, respectively. This difference was not significant (p=.713) (see Table 4.9).

Table 4.9

Mean Credit Hours

Participated in Orientation	N	Mean	Std. Deviation	Std. Error Mean
Credit Hours Earned				
No	191	22.954	18.8662	1.3651
Yes	105	23.771	17.0679	1.6657

In order to examine differences in between the students who participated in orientation and those who did not, an independent samples t-test was conducted. The results of this test indicated that there was no significant difference in observed between the two groups (see Table 4.10).

Table 4.10

Credit Hours Independent Samples T-Test

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Credit Hours Earned Equal variances assumed	1.917	.167	-.368	294	.713	-.8170	2.2172

A final independent samples t-Test was conducted to determine if there was a mean difference in the cumulative grade point average (GPA) earned between those students who participated in the AOP and those who did not. GPA was calculated on a 4.0 scale. A mean difference of 0.06332 was found to occur between students who participated in the AOP (m=2.12, SD=1.16) and those who did not (m=2.06, SD=1.23). This difference was not statistically significant (p=.667) (see Table 4.11).

Table 4.11

Mean Grade Point Average

Participated in Orientation	N	Mean	Std. Deviation	Std. Error Mean
Grade Point Average				
No	191	2.06122	1.233353	.089477
Yes	105	2.12454	1.161166	.113318

Characteristics of Students Attending and Not Attending AOP

Prior to analyzing the factors that predict student retention, which it the focus of question two of this study, it is important to provide descriptive statistics on the characteristics of students who do and do not participate in the AOP. This study included 296 total participants. There were 49 students (16.6%) who were not Pell eligible, and 247 students (83.4%) who were Pell eligible (see Table 4.12).

Table 4.12

Pell Grant

	Frequency	Valid Percent
Valid		
Not Economically Disadvantaged	49	16.6
Economically Disadvantaged	247	83.4
Total	296	100.0

The sample composition was comprised of 200 (67.6%) females and 96 males (32.4%). This finding is consistent with earlier findings showing that community and technical colleges serve more females than males.

As indicated in Table 4.13, there were 200 students (67.6%) who were college ready based upon their entering Reading assessment scores, and 96 students (32.4%) who were not college ready in Reading. College readiness is based on ACT or Compass scores in Reading.

Table 4.13

Gender

	Frequency	Valid Percent
Valid		
Female	200	67.6
Male	96	32.4
Total	296	100.0

As indicated in Table 4.14, the study included 296 total participants. There were 200 students (67.6%) being deemed college ready in Reading and 96 students (32.4%) were deemed not college ready in Reading.

Table 4.14

College Ready in Reading

	Frequency	Valid Percent
Valid		
No	96	32.4
Yes	200	67.6
Total	296	100.0

Of the 200 female students included in the study, 82 (41%) participated in the Academic Orientation Program (AOP), whereas 118 (59%) of female students did not participate. Of the 96 male students, 23 (24%) participated in the AOP, while 73 of the male students (76%) were non-participating. Furthermore, it was found that 78.1% of participants in the AOP were female and only 21.9% were male (see Table 4.15). A chi-square test indicated that gender and participation in the AOP were associated $X2(1)=8.230$, $p=.004$.

Table 4.15

Participated in Academic Orientation Program by Gender

	Participated in Orientation		Total
	No	Yes	
Gender Female Count	118	82	200
% within Gender	59.0%	41.0%	100.0%
% within Participated in Orientation	61.8%	78.1%	67.6%
Gender Male Count	73	23	96
% within Gender	76.0%	24.0%	100.0%
% within Participated in Orientation	38.2%	21.9%	32.4%
Total Count	191	105	296
% within Gender	64.5%	35.5%	100.0%
% within Participated in Orientation	100.0%	100.0%	100.0%

A chi-square test was performed to determine if there was a relationship between gender and participation in orientation with the following results, see Table 4.16. More females participated in orientation program than males.

Table 4.16

Chi Square Tests on AOP participation by Gender

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.230[a]	1	.004

Note. a) 0 cells (.0%) have expected count less than 5. The minimum expected count is 34.05.

As noted earlier, the study included 105 students who participated in the Academic Orientation Program (AOP). Table 4.17 shows that 72 students (68.6%) who participated in the AOP were deemed college ready in Reading, whereas 33 students (31.4%) who participated were not. Additionally, the study included 191 students who did not participate in the AOP, and of those students 128 (67%) were college ready in Reading and 63 (33%) were not. Thus, approximately one-third of students in both groups were not college ready in Reading. Since the AOP non-participant group is larger, the program is serving lower percentages of the students who arguably need it most, those non-college ready in Reading. However, the college ready and non-college ready students participate in the AOP at comparable rates relative to their composition of the sample; $X2(1)=.075, p=.784$.

Table 4.17

College Ready in Reading by Participation in Academic Orientation Program

	Participated in Orientation	
	No	Yes
College Ready in Reading No Count	63	33
% within College Ready in Reading	65.6%	34.4%
% within Participated in Orientation	33.0%	31.4%
College Ready in Reading Yes Count	128	72
% within College Ready in Reading	64.0%	36.0%
% within Participated in Orientation	67.0%	68.6%

Table 4.17 (continued)

Total Count	191	105
% within College Ready in Reading	64.5%	35.5%
% within Participated in Orientation	100.0%	100.0%

	Total
College Ready in Reading No Count	96
% within College Ready in Reading	100.0%
% within Participated in Orientation	32.4%
College Ready in Reading Yes Count	200
% within College Ready in Reading	100.0%
% within Participated in Orientation	67.6%
Total Count	296
% within College Ready in Reading	100.0%
% within Participated in Orientation	100.0%

A chi-square test was performed to determine if there was a relationship between Reading readiness and participation in orientation with the following results as displayed in Table 4.18. There was no significant difference found between those who were Reading ready and those who were not with regard to participation in orientation.

Table 4.18

Chi Square Test of College Ready by AOP Participation

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.075[a]	1	.784

Note. a) 0 cells (.0%) have expected count less than 5. The minimum expected count is 34.05.

The study was comprised of 296 total participants, and of those, 191 students did not participate in the Academic Orientation Program. It was found that of the 160 students (83.8%) who did not participate were determined to be Pell grant eligible and economically disadvantaged, while 31 students (16.2%) who did not participate were not Pell grant eligible, and therefore deemed not economically disadvantaged.

It was found 87 students (82.9%) of those who participated in the AOP were determined Pell grant eligible and economically disadvantaged, while 18 students (17.1%) who participated were not Pell grant eligible. Therefore, the latter group was deemed not economically disadvantaged (see Table 4.19). A Chi-square Test indicated that Pell grant eligibility and AOP participation are independent of one another; $X2(1)=.041$, $p=.840$.

Table 4.19

Pell Grant by Participated in Academic Orientation Program

	Participated
	No
Pell Grant Not Economically Disadvantaged Count	31
% within Pell Grant	63.3%
% within Participated in Orientation	16.2%
Pell Grant Economically Disadvantaged Count	160
% within Pell Grant	64.8%
% within Participated in Orientation	83.8%
Total Count	191
% within Pell Grant	64.5%
% within Participated in Orientation	100.0%

Cross tabulation results demonstrated that Pell grant eligibility or being deemed economically disadvantaged was not a significant predictor of student success. Please see participation in orientation as displayed in Table 4.20.

Table 4.20

Crosstab

	Participated
	Yes
Pell Grant Not Economically Disadvantaged Count	18
% within Pell Grant	36.7%
% within Participated in Orientation	17.1%
Pell Grant Economically Disadvantaged Count	87
% within Pell Grant	35.2%
% within Participated in Orientation	82.9%
Total Count	105
% within Pell Grant	35.5%
% within Participated in Orientation	100.0%

Table 4.20 (continued)

	Total
Pell Grant Not Economically Disadvantaged Count	49
% within Pell Grant	100.0%
% within Participated in Orientation	16.6%
Pell Grant Economically Disadvantaged Count	247
% within Pell Grant	100.0%
% within Participated in Orientation	83.4%
Total Count	296
% within Pell Grant	100.0%
% within Participated in Orientation	100.0%

A chi-square test was performed to determine if there was a relationship between Pell eligibility and participation in orientation. Please see results as displayed in Table 4.21.

Table 4.21

Chi Square Tests of Pell Grant Eligibility by AOP Participation

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.041[a]	1	.840

Note. a) 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.38.

Table 4.22 displays mean rates of persistence and retention by gender. The study included 200 female students and 96 male students. Females persisted at a rate of 86%, whereas male persistence rates were recorded at 90%, yielding a mean difference of 4% between genders. Of all females, 70% were retained, while the male retention rate was 58%, resulting in a mean difference of 12%. The overall persistence rate for all participants was found to be 87%, while the overall retention rate for all participants was 66%.

Table 4.22

Means Persistence and Retention Rates by Gender

Gender		Persistence	Retention
Female			
	Mean	.86	.70
	N	200	200
	Std. Deviation	.348	.459
Male			
	Mean	.90	.58
	N	96	96
	Std. Deviation	.307	.496

Table 4.22 (continued)

Total		
Mean	.87	.66
N	296	296
Std. Deviation	.335	.474

As displayed in Table 4.23, 91% of all students who were college ready persisted. By comparison, the persistence rate of non-ready college students drops to 79.2%. Thus, it is important to note that a relatively high percentage of students persisted, regardless of whether of not they were deemed college ready in Reading.

Table 4.23

College Ready in Reading by Persistence

	Persistence		Total
	No	Yes	
College Ready in Reading No Count	20	76	96
% within College Ready in Reading	20.8%	79.2%	100.0%
% within Persistence	52.6%	29.5%	32.4%
College Ready in Reading Yes Count	18	182	200
% within College Ready in Reading	9.0%	91.0%	100.0%
% within Persistence	47.4%	70.5%	67.6%

Table 4.23 (continued)

Total Count	38	258	296
% within College Ready in Reading	12.8%	87.2%	100.0%
% within Persistence	100.0%	100.0%	100.0%

Both groups of students had high persistence rates. A Chi-Square indicated that college ready students in Reading are more likely to persist than there non-college ready counterparts; X2(1)=8.12, p=.004) (see Table 4.24).

Table 4.24

Chi Square Tests by Reading

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.117[a]	1	.004		
Continuity Correction[b]	7.094	1	.008		
Likelihood Ratio	7.640	1	.006		
Fisher's Exact Test	8.090			.008	.005
Linear-by-Linear Association	296	1	.004		
N of Valid Cases					

Note. a) 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.32. b) Computed only for a 2x2 table

As indicated in Table 4.25, of the 96 students were not college ready in Reading, 61 were retained. With regard to students who were college ready in Reading, 135 were retained.

Table 4.25

College Ready in Reading by Retention

	Retention		Total
	No	Yes	
College Ready in Reading No Count	35	61	96
% within College Ready in Reading	36.5%	63.5%	100.0%
% within Retention	35.0%	31.1%	32.4%
College Ready in Reading Yes Count	65	135	200
% within College Ready in Reading	32.5%	67.5%	100.0%
% within Retention	65.0%	68.9%	67.6%
Total Count	100	196	296
% within College Ready in Reading	33.8%	66.2%	100.0%
% within Retention	100.0%	100.0%	100.0%

A chi-square test was performed to determine if there was a relationship between Reading readiness and retention. Reading readiness was not shown to predict student success with the following results shown in Table 4.26.

Table 4.26

Chi Square Tests of College Readiness by Retention

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.454[a]	1	.500

Note. a) 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.43. b) Computed only for a 2x2 table

The statistical results presented above set the stage for question two, which sought to identify which factors predict student retention and persistence. In order to determine what factors were associated with these indicators of student success in first year community college students, simple linear regression analyses were conducted with student persistence and retention as the dependent variables. The predictor variables in both regressions were total credit hours earned Pell grant eligible, college readiness in Reading, and participation in the Academic Orientation Program. Overall, the model was significant ($F=38.94$, $p<.000$). In other words, the four predictors explain retention better than chance alone. Collectively, the predictors explained 34% of the variance in retention (see Table 4.27).

Table 4.27

Regression on Retention

Model		Sum of Squares	df	Mean Square	F	Sig.
Regression		23.084	4	5.771	38.936	.000[b]
	Residual	43.132	291	.148		
	Total	66.216	295			

Note. a) Dependent Variable: Retention. b) Predictors: (Constant), Credit Hours Earned, Academic Orientation Program Participation, College Ready in Reading, Pell Grant

Results revealed that neither reading readiness nor Pell grant eligibility were related to student achievement as measured by retention, but student participation in the Academic Orientation Program (β=.100) and credit hours earned (β=.595) significantly predicted the rate of student retention. Credit hours earned was the most powerful predictor and is nearly six times more powerful than the only other significant predictor, attending the orientation. It is still important to emphasize that attending the AOP significantly predicted retention while Pell grant eligibility and college readiness in Reading did not (see Table 4.28).

Table 4.28

Coefficients of Predictors on Retention

Model			Standardized Coefficients
	t	Sig.	Beta
1 (Constant)	3.975	.000	
Pell Grant	.400	.690	.019
College Ready in Reading	-1.737	.083	-.084
Academic Orientation Program Participation	2.120	.035	.100
Credit Hours Earned	12.037	.000	.595

AdjR2=.340

In order to determine what factors were associated with a second indicator of student success of first year community college students a second simple linear regression was conducted with student persistence as the dependent variable. The predictor variables were total credit hours earned, college readiness in Reading, Pell grant eligibility, and participation in the AOP. Overall, the model was significant ($F=16.70$, $p<.000$) (see Table 4.29). Collectively, the predictors explained 17.5% of the variance in persistence rates. As was the case with retention, results revealed that neither reading readiness nor Pell grant eligibility were related to student achievement as measured by persistence, but student participation in the Academic Orientation Program and credit hours earned significantly predicted the rate of student persistence.

Table 4.29

Regression on Persistence

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.182	4	1.546	16.696	.000[b]
Residual	26.939	291	.093		
Total	33.122	295			

Note. a) Dependent Variable: Persistence. b) Predictors: (Constant), Credit Hours Earned, Academic Orientation Program Participation, College Ready in Reading, Pell Grant

Credit hours earned was the most powerful predictor (β=.379), which is three times more powerful than the only other significant predictor, attending the orientation (β=.127) Orientation was a strong predictor of persistence (see Table 4.30).

Table 4.30

Coefficients of Predictors of Persistence

Model			Standardized Coefficients
	t	Sig.	Beta
1 (Constant)	10.842	.000	
Pell Grant	-.417	.677	-.023
College Ready in Reading	1.530	.127	.083
Academic Orientation Program Participation	2.403	.017	.127
Credit Hours Earned	6.853	.000	.379

CHAPTER 5: DISCUSSION OF RESULT

Introduction

The primary objective of this study was to ascertain the value of one new student orientation program at a rural community college in Kentucky as a student development service. Specifically, the study assessed the impact of this program on retention rates and other academic measures of student success. The study was designed to determine the overall influence of the Academic Orientation Program (AOP) on term-to-term retention of first-time, full-time status freshman students at a rural community college. The results demonstrated that participation in the program is positively related to higher persistence and retention rates, thus providing a rationale to maintain the program. Given the current economic conditions that exist, it is important for colleges to intentionally focus their attention and institutional resources on such programs that show promise for improving persistence and retention. In addition to establishing a relationship between orientation programming and retention, this study provided information about the instructional components and the practical application of the program. Barefoot (2005) acknowledges that orientation formats vary per institution and orientation is designed to help students navigate the campus environment. Providing a quality orientation program for new students has been an enduring intervention over the past several decades to facilitate a more successful transition to college (Barefoot, 2005; Pascarella, Terenzini, & Wolfe, 1986; Gardner, 1986).

Study Findings

Data revealed that persistence and retention rates were increased for students who participated in the Academic Orientation Program (AOP) as compared to those students

who did not. Persistence rates were significantly higher for students who participated in the AOP compared to those who did not, with rates of 93% and 84%, respectively. This results in a mean difference of 9%. Retention rates were also higher for students who participated in the program (M=73%) as compared to those who did not (62%), a statistically significant difference of 11%. In combination, these data reveal that student participation in the orientation program is strongly associated with student endurance which can result in higher credential rates.

Other measures of academic performance such as grade point average, number of credit hours earned, and credentials awarded were higher in a relative sense for those who participated in the program, but were not significantly different based on statistical tests. The grade point average for those who participated was only slightly higher (M=2.12) as compared to those who did not participate (M=2.06). The mean number of credits hours earned for those who participated in the program was 23.77 as compared to a 22.95 mean for those who did not participate. The mean rate at which credentials were awarded was 14% for participants, whereas those who did not participate had a mean rate of 12%, which again reflected no significant difference.

Two simple linear regressions indicated that socioeconomic status was not a significant predictor of student persistence or retention. For this study, economically disadvantaged students were defined as those students who were eligible for the federal Pell grant program, and those students who were not Pell grant eligible were determined to not be economically disadvantaged. In essence, financial aid and student need were not determined to have a significant effect upon retention or persistence rates regardless of whether a student participated in the Academic Orientation Program (AOP) or not. These

same regressions also revealed that college readiness in Reading does not predict persistence or retention rates either. This finding should be particularly alarming for policymakers that are emphasizing college readiness at the national level with the expectation that producing more students who are college ready by the time they graduate from high school will increase access to and completion of a postsecondary education by a larger number of citizens, in effect with the goal of doubling the numbers of college graduates in the case of Kentucky. Students may well be experiencing testing fatigue, since they must regularly submit themselves to assessments such as MAP, CIITS, EXPLORE, PLAN, ACT, and Compass which could reduce the validity of some test results.

In fact, college and career readiness are control measures in Kentucky's K-12 accountability model. Despite these emphases, college readiness in Reading appears insufficient to increase retention and persistence rates, and ultimately graduation rates, based on the data in this study. This study clearly needs to be replicated in other types of community and technical colleges, as well as in four-year institutions. Other analysis of data results provided information that demonstrates that participation in the participation in the AOP was significantly associated with higher rates of retention.

Unlike retention and persistence rates, the other indicators did not differ significantly between students who participated in the orientation and those who did not. Those indicators included GPA, credits earned, and credentials earned. Therefore, it is important to consider the non-academic context by which the program may have impacted student retention and persistence. The orientation program provided direct instructional services for students, active learning, and small class sizes. Students were

actively engaged and provided with a learning experience that consisted of approximately twenty students with a team of three to five orientation staff members including the lead instructor, support staff, and various members of the instructional faculty. The program provided a social environment for students who may have been able to learn how to better integrate themselves within the campus community, access support systems, and navigate the academic environment. Socialization such as student peer interactions, faculty and staff engagement, as well as active and participatory learning in orientation appears to have made an impact upon retention and persistence in spite of not increasing GPA, credits earned or credentials. Students clearly have more direct control over their decision to persist than they do over GPA, credits, and credentials earned. It seems plausible that the AOP is facilitating a connection with the campus leading such students to persist while non-participants achieving at comparable levels choose to exit.

Implications for Increased Student Retention

Increased student achievement has a direct, constructive, and long lasting positive effects upon the community-at-large. An ability to build educational capital is essential for rural communities to be able to compete with larger urban areas within the context of a competitive global marketplace. Higher rates of education attainment are associated with increased lifetime earnings, higher standards of living, and greater socioeconomic mobility (U.S. BLS, 2013). A high-tech, skills-based and information-based economy requires a more educated workforce, and the community college can help to meet the demand for high-skilled, high-wage workers. Brandon (2009) reported on The American Graduation Initiative, which seeks to increase the number of college graduates in order to meet the goal for an additional 5 million community college graduates by 2020. A report

compiled by the Center for Education and the Workforce at Georgetown University states that by 2020, approximately 6 million jobs will require a graduate degree, 13 million will require a baccalaureate degree, 7 million jobs will require an Associate degree and 5 million will necessitate a postsecondary education certificate. Overall, about 80 percent of jobs will require a postsecondary education credential (Bradley, 2013)

With increased accountability and scrutiny from stakeholders, it is very important that institutions help more students to be able to complete their program plan of study and earn their college credentials. Senate Bill One (2009) in Kentucky sets forth a framework by which public schools are being held accountable for meeting career and college readiness standards. Improved collaboration efforts between P-12 and postsecondary schools have resulted in various dual credit and early college programs whereby students can earn credits toward college while simultaneously being enrolled in high school. This cooperation between educational systems will enable more students to access college classes earlier and earn credits, while also reducing their time to degree completion and the cost of education.

This research study found that only a very small number of students were able to earn a credential within two academic years, which is consistent with previous findings of earlier studies on community college completion. According to a report provided by Complete College America (2012), less than 30% of students who enroll full-time in community college complete an Associate's degree in three years. Completion rates are especially low for minority, low-income, and older students. Community college students have high attrition rates even though the economic and social benefits of completion are wide ranging and vital to the entire country. Academic orientation programs like the one

in this study appears to be effective in reducing these high attrition rates but are just one element in the larger system of variables influencing retention and persistence rates, thus enabling credential earnings rates to ultimately increase. With that in mind, it must be noted that there were 99 students in the sample who were not college ready in Reading and only 33 of them participated in the AOP. It is imperative for colleges to provide such programs to the students who need it most. At a minimum, outreach efforts must be increased to reach underprepared students so that more of them can participate in the AOP. The pros and cons of required participation should be considered.

The Kentucky Council on Postsecondary Education (CPE) has embarked upon the Double the Numbers campaign with the goal of increasing the number of baccalaureate degree holders in the Commonwealth to equal the national rate. Postsecondary institutions must begin to seriously address the dropout issue in order to meet the demands for a more credentialed workforce. The demand for a more educated workforce is not likely to be met by our existing policies, priorities, and practices. Community colleges must graduate a greater number of students, and this is achievable because community colleges typically are less expensive than four-year colleges and universities, often have open admissions policies, and offer more technical education programs that are in demand. The community college provides a more practical pathway to earning a college degree for many students who otherwise might not be able to pursue a degree. Further still, community colleges are an important link in helping more students earn their Associate Degree and prepare for transfer to four-year colleges and universities. The Kentucky Community & Technical College System (KCTCS) has placed significant emphasis on transfer. Each of the 16 KCTCS colleges have implemented transfer

program centers to increase student awareness of transfer opportunities, enable student access to transfer counselors, and distribute informational resources about transfer admissions and scholarships.

Existing Community College Research and Future Research

This study provided parallels to other studies that were conducted with community college student populations across America. For example, Derby and Smith (2004), Fike and Fike (2008), and B.J. Smith (2010) found that orientation programming positively impacted community college student retention rates, as did Zeidenberg, Jenkins, and Colcagno (2007). It is important to note that the scope and volume of community college retention research is limited, but as the importance of the community college is more widely recognized, more research will be produced to further the understandings of student development for practitioners and policymakers. Additional research is needed that specifically gathers information about how and what services and programs can increase student success rates. Townsend, Donaldson, and Wilson (2004) found that less than 10 percent of the 2,321 articles reviewed on retention from several major journals even mentioned community colleges. The lack of general research on community colleges is a particularly serious problem, especially when it comes to the practice of retention.

Future research studies should include qualitative methods that can provide supplemental contextual information. Information obtained from entering student surveys and interviews, exiting student surveys and interviews, and focus groups would likely shed light upon student aspirations, motivations, and dispositions. Such data would inform stakeholders on what specific programs are effective and more importantly why

some students choose to persist while others performing at comparable academic levels choose to exit. It may also help the institution to better understand their student population and the obstacles they must overcome to be successful in college. A more thorough understanding of who the students are and what their interests and aptitudes might be could only help institutions to better serve their student's unique educational needs.

Policy Implications With Regard To Enrollment Management

For far too long, institutions have operated under an access model that concentrates human and financial resources on the recruitment of students. Matriculation alone will not be sufficient to meet the fiscal demands placed upon colleges to be financially secure and solvent. Community colleges typically serve a transient and diverse population that has specific lifestyle demands that are placed upon them that other traditional, residential, university students do not face. In order for community colleges to meet the goals of policymakers and increase the educational capital and economic competitiveness of their local communities, it has become necessary to adopt a new model of operations. A comprehensive enrollment management model that integrates recruitment, retention, and completion will be more effective in helping students to earn their credentials and move into the workforce or prepare for transfer to four-year schools. Jenkins (2006) suggested that effective institutions must have as its focus, retention and outcomes, and not just enrollment. The Foundations of Excellence, which is directed by John Gardener, provides consultative and program evaluation services that are designed to assist institutions in understanding what they are doing well,

what they need to be doing, and how to implement new policies and practices that will engage students and enhance retention efforts (Barefoot, Griffin, & Koch, 2013).

McArthur (2005), as did Cuseo (2005) and Roberts and Styron (2010) found that academic advising can be an influential mechanism by which an intervention can be provided to help students and promote retention. Institutions need to provide advisor training programs to help educate faculty members on their role as an advisor and how research informed best practices can increase student success outcomes. Actively engaging students will enable faculty members to learn more about their students and can facilitate positive social support systems to increase student retention (Bean, 2005). In addition to academic advising, the provision of guidance counseling services was found by Lee et al. (2009) to increase retention rates. Sharkin (2004), as well as Bailey and Alfonso (2005), reported that college counseling services can positively impact student retention and the provision of such services should be integrated within an institution's retention program. The Academic Orientation Program in this study intentionally involved aspects of guidance counseling such as an introduction to student success strategies, campus resources, and how to access follow-up services beyond orientation. These elements should be embedded in all similar programs, especially given the finding that participants persisted at higher levels than did non-participants performing at comparable academic levels. An emphasis on socialization appears to return higher persistence and retention rates.

Other important research in recent years has shed light on promising practices for students who have remediation needs. For example, learning communities have shown to help students to achieve academically as well as to integrate themselves socially within

the campus environment (Fogarty et al., 2003; Smith et al., 2004). This study failed to find an association between students who met reading benchmarks for college readiness and higher rates of retention.

This lack of a relationship may be due in part to how we define and determine college readiness. Regardless of the cause, no relationship was found, and that merits further research given the current investments being made in college readiness. It might prove useful to provide students who have remedial academic needs with a cohort structure of courses that includes a freshman year course along with their academic core courses. First-year student experience programs have become more common place in four-year colleges and universities where students are residential and traditional in nature, but community colleges should consider how they integrate and support new students who matriculate into the college so that they might achieve higher levels of academic success. Considering the transient nature of typical community college students, institutions might choose to place focus upon the first term of enrollment and work diligently and with purpose to support new students.

Institutional Implications and Benefit Analysis

Institutional practices, policies, and programs can have an effect on student success. Kuh (2009) and Hendel (2007) report that active engagement of students can improve grade point averages and persistence rates of first-year students. It is the effort put forth by the institution that can be reciprocated from the student. Students who develop a sense of belonging, and acceptance, and who are assimilated within the campus culture have a better opportunity to achieve (Boyer, 1996). The costs associated with student engagement might be expensive, but the high attrition rates of students, the

decreased number of credentials earned, and the lack of educational capital and the expectant revenue for not prioritizing student success could be overwhelming for an institution and more importantly for the community. A number of states such as Tennessee, New Mexico, and Missouri are now linking higher education funding allocations to student success outcomes as measured by retention rates, credential completion rates, and student pass rates on professional licensure exams.

> Our campuses have completely changed the way they interact with students, said Russ Deaton of the Tennessee Higher Education Commission. In the past few years, Deaton said, "degrees are up, graduations are up and the number of low-income students is up. Is there a causal relationship that can be determined? Probably not, but we like to think the formula model has indeed contributed to that, (Milligan, 2013, Page 1).

Outcomes based funding is more widespread across states and under discussion in Kentucky, the state in which Community College is located. This potential shift in funding is just one more motivation to drastically alter services to retain and graduate significantly more students.

As noted above the cost of not retaining students is a monumental to colleges and communities. With that in mind, it is critical to emphasize that the cost of delivering the AOP are minimal. It is only a two hour program. Clearly, it comes out favorably from any cost-benefit analysis. For example, given this study sample of 296 students that were all full-time status, meaning a minimum of 12 credit hours, there was potential tuition revenue of $511,488, at the rate of $144 per credit, therefore the significance of the

increased retention rate of 11% for the orientation participants could help to reduce lost revenues to the college in subsequent terms.

Effective assessment practices are necessary to determine what programs and services are increasing indicators of student achievement like the five in this study. Offices of institutional research must bring to bear their resources and expertise to support this process. Institutional leaders must develop and convey a coherent message to stakeholders that strategizes and prioritizes college support systems that increase retention and credential completion. It is incumbent upon an institution to provide the requisite support services that enable student achievement. The entire campus community and all personnel have a vested interest in the success of students, and therefore have an important role to play in retention services. Therefore, I would advocate for the delivery of an orientation program for all incoming students.

Closing Thoughts

With soaring student loan debts, increased default rates, and increased examination of the return-on-investment of a college education, it is apparent to the casual observer that institutions must help more students to complete college and become gainfully employed. Students who earn their credentials, obtain employment, and have higher standards of living are validations of the importance of higher education attainment. Colleges and universities should develop effective career development and placement offices to help students learn how to access job search services, prepare for the workforce, and compete effectively to obtain rewarding jobs. With increased employability within their chosen career field and good wages, students who enter the world of work become not only successful alumni, but provide a positive affirmation

about the value of a college education. Graduates who are gainfully employed and who are able to earn wages can not only provide better for themselves and their families, but can also potentially avoid student loan default.

An institution is only perceived as good or as reputable for high quality as the employability and workplace performance of its students who attended and graduated from the institution. In an effort to enhance student integration within the campus community, institutions must demonstrate authentic interest in student success and thereby create a campus culture that values each student and their personal achievement. The return-on-investment for prioritizing student retention will necessarily be realized in higher student completion rates, increased student satisfaction reports, and more stable tuition revenue streams by which to operate the institution. Therefore, a college that prizes student success will inherently become a more effective institution that will improve the lives of every student and enrich the communities in which they exist. An increase in the educational capital of a community will be required in order that it exists as a viable and attractive community in which to live, work, grow a family, and build a future. These could not be more true than in the rural communities which the community college in this study serves.

REFERENCES

ACT, Inc. (2009). *College student retention and graduation rates from 2000 through 2009*. Retrieved from http://www.act.org/research/ policymakers/pdf/ retain_2009.pdf

Adelman, C. (2005). *Moving into town and moving on: The community college in the lives of traditional-aged students*. Washington, DC: Office of Vocational and Adult Education, U.S. Department of Education. Retrieved from http://www2.ed.gov/rschstat/research/pubs/comcollege/movingintotown.pdf

American College Testing. (2007). National Collegiate Retention and Persistence to Degree Rates. Iowa City, IA. Retrieved from http://www.act.org/research/policymakers/pdf/retain_2007.pdf

American College Testing (2010). The Condition of College & Career Readiness. Iowa City, IA. Retrieved from http://www.act.org/research/policymakers/cccr10/pdf/ConditionofCollegeandCareerReadiness2010.pdf

Arent, J. N. (2005). Does education cause better health? *Economics of Education Review*, *24*(2), 149-160.

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, *25*, 297-308.

Astin, A. W. (1985). Involvement the cornerstone of excellence. Change: The Magazine of Higher Learning, 17(4), 35-39.

Astin, A. W. (1993). *What matters in college: Four critical years revisited*. San Francisco: Jossey-Bass.

Astin, A. W., & Sax, L. J. (1998). How undergraduates are affected by service participation. *Journal of College Student Development, 39*(3), 251-263.

Attewell, P., Lavin, D., Domina, T., & Levey, T. (2006). New evidence on college remediation. *Journal of Higher Education*, *77*(5), 886–924.

Attinasi, L. C., Jr. (1989). Getting in: Mexican Americans' perceptions of university attendance and the implications for freshman year persistence. *Journal of Higher Education*, *60*(3):247-277.

Averett, S., & Dalessandro, S. (2001). Racial and gender differences in the returns of 2-year and 4-year degrees. *Education Economics, 9*, 281-292.

Bailey, T., Jenkins, D., & Leinbach, D. T. (2005). *What we know about community college low-income and minority student outcomes: Descriptive statistics from national surveys.* New York, NY: Columbia University, Teachers College, Community College Research Center.

Bailey, T. R., & Alfonso, M. (2005). Paths to persistence: An analysis of research on program effectiveness at community colleges. *Community College Research Center, Teachers College, Columbia University, New Agenda Series*, *1*(6), 1-44.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.

Barefoot, B. O. (2000). The first-year experience—Are we making it any better? *About Campus*, *4* (6), 12-18.

Barefoot, B.O. (2005). Current institutional practices in the first college year. *Challenging and Supporting the First-Year Student: A handbook for improving the first year of college.* San Francisco, CA: Jossey-Bass Publishers.

Barefoot, B. O., & Gardner, J. N. (1993). The freshman orientation seminar: Extending the benefits of traditional orientation. Designing successful transitions: A guide for orienting students to college, 141-153.

Barefoot, B. O., Griffin, B. Q., & Koch, A. (2013). *Enhancing student success and retention throughout undergraduate education: A national survey*. Retrieved from http://www.jngi.org/wordpress/wp-content/uploads/2012/04/JNGInational_survey_web.pdf

Bean, J. (2005). Nine themes of college student retention. *College student retention: Formula for Student Success*, 215-243.

Bean, J., & Eaton, S. B. (2001). The psychology underlying successful retention practices. *Journal of College Student Retention, 3*(1), 73-89.

Belfield, C. R., & Levin, H. M. (Eds.). (2007). *The price we pay: Economic and social consequences of inadequate education*. Washington, DC: Brookings Institution Press.

Berger, J. B., and Milem, J. F. (1999). The role of student involvement and perceptions of integration in a causal model of student persistence. *Research in Higher Education*, *40*(6): 641-664.

Berkner, L., Choy, S., & Hunt-White, T. (2008). *Descriptive summary of 2003–04 beginning postsecondary students: Three years later* (NCES 2008-174). Washington, DC: U.S. Department of Education, National Center for Education Statistics, Institute of Education Sciences.

Bickel, R. (1989). Post-high school opportunities and high school completion rates in an Appalachian state: A near-replication of Florida research. *Youth and Society, 21*(1), 61-84.

Bolender, R. (1994). *The evaluation of institutional goals for freshman seminar at Mount Vernon Nazarene College*. ERIC Document Reproduction Services No. ED406912.

Borrego, A. (2002). Education Department to emphasize retention in next Higher Education Act. *The Chronicle of Higher Education*, 48(44), A24.

Boyer, E. L. (1996). The scholarship of engagement. *Journal of Public Service and Outreach, 1*(1), 11-20.

Bradley, P. (2013). Lumina: Attainment rates on rise, but too slowly. *Community College Week.* Retrieved from http://www.ccweek.com/news/templates/template.aspx?articleid=3593&zoneid=7

Brandon, Katherine. Investing in education: The American graduation initiative. *Retrieved January* 4, 2010.

Brawer, F. B. (1996) *Retention-attrition in the nineties*. (Report No. EDO-JC-96-06). Los Angeles, CA: ERIC Clearinghouse for Community Colleges.

Breneman, D., & Haarlow, W. (1998). *Remedial education: Costs and consequences*. Paper presented at the Remediation in Higher Education: A Symposium, Washington, DC.

Brown, D. A. (1997). *Assessment of anticipated and actual college adjustment in freshman-oriented students* (Doctoral dissertation). Available from Dissertation Abstracts International. (UMI No. 95013-111).

Buchanan, S. (1993). University 101 for high school students. *Journal of the Freshman Year Experience, 5*(2), 49-68.

Busby, R. R., Gammel, H. L., & Jeffcoat, N. K. (2002). Grades, graduation, and orientation: A longitudinal study of how new student orientation programs relate to grade point averages and graduation. *The Journal of College Orientation and Transition, 10*(1), 45-50.

Calcagno, J. C., Crosta, P., Bailey, T., & Jenkins, D. (2006). Stepping stones to a degree: The impact of enrollment pathways and milestones on community college student outcomes. *Research in Higher Education,* 48(7), 775-801.

Chapman, C., Laird, J., Ifill, N., & KewalRamani, A. (2011). *Trends in high school dropout and completion rates in the United States: 1972–2009* (Report No. NCES 2012-006). Washington, DC: National Center for Education Statistics, U.S. Department of Education. Retrieved from http://nces.ed.gov/pubsearch

Chen, X. (2005). *First-generation students in postsecondary education: A look at their college transcripts* (Report No. NCES 2005-171). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005171

Chesley, J. (2004). Student engagement and academic achievement: A promising connection. In D. Carlson & C. Gause (Eds.), *Keeping the promise: Essays on leadership, democracy, and education* (pp. 177-193). New York: Peter Lang.

Cohen, A. M. (1978, August). Current research on small/rural community colleges: Separating fact from fiction. Paper presented at the first annual National

Conference on Small/Rural Colleges, Blacksburg, VA. Retrieved from ERIC database. (ED 165 845)

Cohen, A., & Brawer, F. (1996). *The American Community College*. (3rd ed.). San Francisco: Jossey-Bass.

Cohen, A M., & Brawer, F. B. (2003). *The American Community College.* (4th ed.). San Francisco: Jossey-Bass.

Complete College America. 2012. *Time is the Enemy*. Retrieved on May 10, 2012 from: http://www.completecollege.org/docs/CCA-Remediation-final.pdf.

Cook, L., Cully, B. R., & Huftalin, D. (2003). The connecting point: Orientation at community colleges. In J. A. Ward-Roof & C. Hatch (Eds.), *Designing successful transition: A guide for orienting students to college* (2nd ed.) (pp. 125-135). Columbia, SC: National Resource for the First-Year Experience and Students in Transition.

Cross, K. P. (1999). Assessment to improve college instruction. *Assessment in higher education: Issues of access, quality, student development, and public policy*, 35-46.

Cuseo, J. (2005). Decided, "undecided, 'and 'in transition': Implications for academic advisement, career counseling, and student retention. *Improving the first year of college: Research and practice*, 27-48.

Cuseo, J. B. (1997). *Freshmen orientation seminar at the community college: A research-based rationale for its value, content, and delivery*. Unpublished manuscript. Retrieved from ERIC database. (ED 411 005)

Deil-Amen, R., & Rosenbaum, J. (2002). The unintended consequences of stigma-free remediation. *Sociology of Education*, *75*(3), 249–268.

Derby, D. C., & Smith, T. (2004). An orientation course for community college retention. *Community College Journal of Research and Practice*, *28*(9), 776-773.

Dorr, T. (2006). *Remarks: AG Outlook Forum/Rural Development Track*. Washington, D.C.: U.S. Department of Agriculture, Office of Rural Development.

Engle, J., & Tinto, V. (2008). Moving Beyond Access: College Success for Low-Income, First-Generation Students. Pell Institute for the Study of Opportunity in Higher Education.

Fain, P. (2013, February). *Two community colleges get serious about working with K12*. Retrieved from http://www.insidehighered.com/news/2013/02/19/two-community-colleges-get-serious-about-working-k12

Feldman, J. F. (1993). Factors associated with one-year retention in a community college. *Research in Higher Education*, *34* (4), 503-512.

Fidler, P. P., & Hunter, M. S. (1989). How seminars enhance student success. In M. L. Upcraft & J. N. Gardner (Eds.), *The freshman year experience* (pp. 216-237). San Francisco, CA: Jossey-Bass.

Fike, D. S., & Fike, R. (2008). Predictors of first-year student retention in the community college. *Community College Review*, *2*(36), 68-88.

Fluharty, C. W. (2004, October). *New Approaches to Rural Policy: Affirming the Role of Rural Community Colleges*. Paper presented at the Annual Conference of the Rural Community College Alliance, Myrtle Beach, SC.

Fluharty, C. W. “Testimony Before the U.S. House of Representatives, House Committee on Agriculture, Subcommittee on Conservation, Credit, Rural Development and Research.” Washington, D.C., Mar. 30, 2006.

Fogarty, J., et al. (2003). *Learning communities in community colleges*. National Learning Communities Project Monograph Series. Olympia, WA: The Evergreen State College, Washington Center for Improving the Quality of Undergraduate Education, in cooperation with the American Association of Higher Education and the American Association of Community Colleges.

Folger, W. A., Carter, J.A., & Chase, P. B. (2004). Supporting first generation college freshman with small group intervention. *College Student Journal*, *38*(3), 472-475

Fonte, R. (1997). Structured versus laissez-faire open access; Implementation of a proactive strategy. *New Directions for Community Colleges*, *100*, 43-52.

Friedlander, J. (1995). *Evaluation of Napa Valley Community College’s student orientation, assessment, advisement and retention program*. ERIC Document Reproduction Services No. ED 250026.

Gebremariam, G. H., Gebremedhin, T. G., & Schaeffer, P. V. (2011). *Employment, Income, and Migration In Appalachia.* Journal of Regional Science, 51(1), 102-120.

Gaff, J. (1997). The changing of faculty and administrators. *Liberal Education*, 12-17.

Garder, J. N. (1986). The freshman-year experience. *The Journal of the American Association of Collegiate Registrars and Admissions Officers*, *61*(4), 261-274.

Garder, J. N., & Siegel, M. J. (2001). Focusing on the first-year student. *Priorities*, *17*, 1-17.

Gill, A. M., & Leigh, D. E. (2003). Do the returns to community colleges differ between academic and vocational programs? *Journal of Human Resources, 38,* 134-155.

Glass, J. C., & Garrett, M. S. (1995). Student participation in a college orientation course, retention, and grade point average. *Community College Journal of Research and Practice, 19*(2), 117-132.

Goldrick-Rab, S. (2010). Challenges and opportunities for improving community college student success. *Review of Educational Research, 80*(3), 437–469.

Green, R. L. (1998). *Retention and achievement in one first year program: A multivariate analysis* (Doctoral dissertation). North Carolina State University.

Habing, B. (1999). Assessment of a freshman year summer transition program in an open admissions institution. *Journal of the First-Year Experience & Students in Transition*, *11*(2), 7-32.

Hardy, D. E. (2005). A two-year college typology for the 21st century: Updating and utilizing the Katsinas-Lacey Classification System. Retrieved from *Dissertation Abstracts International*, 2005, 66(7), 2508A. (UMI No. AAT 3181046)

Hardy, D. E., & Katsinas, S. G. (2006). "Using community college classifications in research: From conceptual model to useful tool." *Community College Journal of Research and Practice, 30,* 339-358.

Heckman, J. J., Lochner, L. J., & Todd, P. E. (2008). Earnings functions and rates of return. *Journal of Human Capital, 2,* 1-31.

Hendel, D. D. (2007). Efficacy of participating in a first-year seminar on student satisfaction and retention. *Journal of College Student Retention: Research, Theory, and Practice*, *8*(4), 413-423.

Hickman, G. P., Batholomae, S., & McHenry, P. C. (2000). Influence of parenting style on the adjustment and academic achievement of traditional college freshman. *Journal of College Student Development, 41*, 41-54.

Horn, L., & Carroll, C. D. (1996). *Nontraditional undergraduates: Trends in enrollment from 1986 to 1992 and persistence and attainment among 1989-90 beginning postsecondary students* (Report No. NCES 97-578). Washington DC: U.S. Department of Education, National Center for Education Statistics.

Horn, L., & Nevill, S. (2006). *Profile of undergraduates in U.S. postsecondary education institutions, 2003-04: With a special analysis of community college students* (Report No. NCES 2006-184). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

Hossler, D. (2005, November). *Managing student retention: Is the glass half full, half empty, or simply empty?* Paper presented at the Strategic Enrollment Management Conference of the American Association of Collegiate Registrars and Admissions Officers, Chicago, IL.

Ishikawa, M., & Ryan, D. (2002). Schooling, basic skills, and economic outcomes. *Economics of Education Review, 21,* 231-243.

Jacobson, L. S., LaLonde, R. J., & Sullivan, D. G. (2005). The impact of community college retraining on older workers: Should we teach old dogs new tricks? *Industrial and Labor Relations Review, 58,* 398-416.

Jenkins, P. D. (2006). Community college management practices that promote student success. *Community College Research Center Brief,* 31, October 2006.

Jepsen, C., Troske, K., & Coomes, P. (2009) *The labor market returns to community college degrees, diplomas, and certificates* (Discussion Paper Series 2009-08). Lexington, KY: University of Kentucky Center for Poverty Research. Retrieved from http://www.ukcpr.org/Publications/DP2009-08.pdf

Kantrowitz, M. (2010). *Countercyclicality of college enrollment trends.* Retrieved from http://www.finaid.org/educators/ 20100816countercyclicality.pdf

Katsinas, S., Alexander, K., & Opp, R. D. (2003). *Preserving access with excellence: Financing for rural community colleges*. Rural Community College Initiative Policy Paper. Chapel Hill, NC: MDC, Inc.

Keenan, K., & Gabovitch, R. (1995, October). *Evaluating the impact of a freshman seminar program on student development and retention*. Paper presented at the North East Association for Institutional Research 22nd Annual Conference, Burlington, VT.

Kenny, M. E., & Stryker, S. (1996). Social network characteristics and college adjustment among racially and ethnically diverse first-year students. *Journal of College Student Development, 37*(6), 649-658.

Kentucky Council on Postsecondary Education (2007). Double the Numbers, Kentucky's Plan to Increase College Graduates. Retrieved from http://www.cpe.ky.gov/NR/rdonlyres/76889317-86C5-4AFF-9046-AD95E4137602/0/DoubletheNumbersPlanFINALNov15.pdf

Kentucky Council on Postsecondary Education. (2009). Comprehensive Process for the Revision of K – 12 to College Entry-Level Course Content Standards. Retrieved

from http://cpe.ky.gov/NR/rdonlyres/A9A05F1E-1389-4D4E-B8F7-58C6F3630004/0/ComprehensiveProcessforRevisingContentStandards.pdf

Kentucky Council on Postsecondary Education. (2010). *CPE comprehensive database*. Retrieved from http://dataportal.cpe.ky.gov/hsfr/2008/historicaltables/add.pdf

Kentucky Council on Postsecondary Education. (2012). *Kentucky Council on Postsecondary Education comprehensive database (KPEDS*). Retrieved from http://dataportal.cpe.ky.gov/2012/Enrollment/TotalEnrollmentofKentuckiansFall2011.pdf

Kentucky Department of Education. (2010). College and Career Readiness Map. Retrieved from http://openhouse.education.ky.gov/reports/999_2010_CCR_STATEMAP.pdf

Kentucky Department of Education. (2011). College and Career Readiness Map. Retrieved from http://openhouse.education.ky.gov/reports/999_2011_CCR_NOBONUS_STATEMAP.pdf

Kuh, G. D. (2009). The national survey of student engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, 2009(141), 5-20.

Kuh, G. D., Cruce, T. M., Shoup, R., Kinzie, J., & Gonyea, R. M. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. The Journal of Higher Education, 79(5), 540-563.

Lee, D., et al. (2009). The effects of college counseling services on academic performance and retention. *Journal of Student Development*, *50*(3), 305-319.

London, H. B. (1989). Breaking away: A study of first-generation college students and their families. *American Journal of Education*, *97*(1), 144-170.

Lotkowski, V. A., Robbins, S. B., & Noeth, R. J. (2004). The role of academic and non-academic factors in improving college retention. ACT Policy Report, 1.

Lumina Foundation. (2013, February). *Strategic plan 2013-2016*. Retrieved from http://www.luminafoundation.org/advantage/document/ goal_2025/2013-Lumina_Strategic_Plan.pdf

Marina, B., & McGuire, M. (2008). First-year experience: Reform in college freshmen programs for first year students. *Educational Planning*, *17*(3), 9-18.

McArthur, R. (2005). Faculty based advising: An important factor in community college retention. *Community College Review*, *32*(4), 1.

Miller, K. K., and Rowley, T. D. (2002) *Rural poverty and rural urban income gaps: A troubling snapshot of the "prosperous" 1990s.* Columbia, MO: Rural Policy Research Institute.

Milligan, S. (2013, July). Graduation rates, test scores drive higher ed funding. *The Huffington Post*. Retrieved from http://www.huffingtonpost.com/2013/07/08/ graduation-rates-higher-ed-funding_n_3562080.html?view=screen

Mistry, R. S., Benner, A. D., Tan, C. S., & Kim, S. Y. (2009). Family economic stress and academic well-being among Chinese-American youth: the influence of adolescents' perceptions of economic strain. *Journal of Family Psychology*, *June 23*(3), 279-90.

Mohammadi, J. (1996). Exploring retention and attrition in a two-year public community college. *VCCA Journal*, *10*(1), 39-50.

Moore, C., & Shulock, N. (2009). *Student progress toward degree completion: Lessons from the research literature.* California State University, Sacramento, Institute for Higher Education Leadership & Policy.

Muijs, D., et al. (2009). Improving schools in socioeconomically disadvantaged areas: A review of research evidence. *School Effectiveness and School Improvement, 15*, 149-175.

Mullin, C. M. (2011, October). *The road ahead: A look at trends in the educational attainment of community college students* (Policy Brief 2011-04PBL). Washington, DC: American Association of Community Colleges.

National On-Campus Report (2005). Community college retention hits its stride. *National On-Campus Report*, *33*(23), 1,4.

Obermiller, P. J., & Maloney, M. E. (Eds.) (2002). *Appalachia: Social context past and present.* (4th Ed.). Dubuque, IA: Kendall/Hunt.

Offenstein, J., & Shulock, N. (2010). Taking the next step: The promise of intermediate measures for meeting postsecondary completion goals. Achieving the Dream, Inc.

Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco, CA: Jossey-Bass.

Pascarella, E. T., & Terenzini, P. T. (1998). Studying college students in the 21st century: Meeting new challenges. *The Review of Higher Education*, *21*(2), 151-165.

Pascarella, E. T., Terenzini, P. T., & Wolfe, L. M. (1986). Orientation to college and freshman year persistence/withdrawal decisions. *The Journal of Higher Education, Vol. 57, No. 2*, 155-175.

Perin, D. (2006). Can community colleges protect both access and standards? The problem of remediation. *Teachers College Record, 108*(3), 339–373.

Pierce, D. (1996, June). *Building communities on firm foundations*. Paper presented at the Annual Conference of the American Association of Community Colleges, Battle Creek, MI.

Pollard, K. & Jacobsen, L. (2012). *The Appalachian region: A data overview from the 2006-2010 American community survey*. Retrieved from http://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=96

Provasnik, S., & Planty, M. (2008). *Community colleges: Special supplement to The Condition of Education 2008* (NCES 2008-033). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://nces.ed.gov/pubs2008/2008033.pdf

Radford, A. W., Berkner, L., Wheeless, S. C., & Shepherd, B. (2010). *Persistence and attainment of 2003–04 beginning postsecondary students: After 6 years* (NCES 2011-151). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

Reeder, R. J., & Calhoun, S. J. (2002). Federal funds in rural America: Payments vary by region and type of county. *Rural America, 17*(3), 1-3.

Rendon, L. (1995, May). *Facilitating retention and transfer for the first generation students in community colleges*. Paper presented at the New Mexico Institute, Rural Community College Initiative, Espanolo, NM.

Reyes, N. (1997). Holding on to what they've got: Analysis of programs implemented by six institutions to keep college students in school). *Black Issues in Higher Education*, *13*(26), 36-40.

Roberts, J,. & Styron, R. (2010). Student satisfaction and persistence: Factors vital to student retention. *Research in Higher Education Journal, 6*(3), 1-18.

Robinson, D. A., Burns, C. F., & Gaw, K. F. (1996). Orientation programs: A foundation for student learning and success. *New Directions for Student Services, 75,* 55-68.

Roessler, B. C. (2006). A quantitative study of revenues and expenditures at U.S. community colleges, 1980-2001. Retrieved from *Dissertation Abstracts* International, *67*(4), 1200. (UMI No. AAT 3214494)

Roksa, J., & Calcagno, J. C. (2008, June). *Making the transition to four-year institutions: Academic preparation and transfer*. CCRC Working Paper No. 13. New York: Columbia University, Teachers College, Community College Research Center. Retrieved from http://ccrc.tc.columbia.edu/Publication.asp?UID=618

Rouse, C. E. (2007). Consequences for the labor market. In C. R. Belfield & H. M. Levin (Eds.), *The price we pay: Economic and social consequences of inadequate education* (pp. 99–124). Washington, DC: Brookings Institution Press.

Rousseau, D. M. (1995). *Psychological contract in organizations*: *Understanding written and unwritten agreements.* Newbury Park, CA: Sage.

Rubin, S., et al. (2005). *Invigorating Rural Economies: The Rural Development Mission of Mississippi's Community Colleges. Special Report of the MidSouth Partnership for Rural Community Colleges* (Report No. PSR-05-2). Meridian, MS: Midsouth Partnership for Rural Community Colleges.

Ryan, M., & Glenn, P. (2004). What do first-year students need most: Learning strategies instruction or academic socialization? *Journal of College Reading and Learning, 34*(2), 4-28.

Svanum, S., & Bigatti, S. M. (2009). Academic course engagement during one semester forecasts college success: Engaged students are more likely to earn a degree, do it faster, and do it better. Journal of College Student Development, 50(1), 120-132.

Schneider, M., & Yin, L. (2012). Completion matters: the high cost of low community college graduation rates. American Enterprise Institute, April, 2012. Retrieved from http://www.aei.org/outlook/education/higher-education/community-colleges/completion-matters-the-high-cost-of-community-college-graduation-rates/

Schroeder, C. (2003). The first year and beyond. *About Campus*, *8*(4), 9.

Sharkin, B. S. (2004). College counseling and student retention: Research findings and implications for counseling centers. *Journal of College Counseling, 7*(2), 99-108.

Smith, B. J. (2010). *The influence of a new student introduction program on freshman student retention at a rural, two-year community college* (Doctoral dissertation). Washington State University, WA.

Smith, B.L., MacGregor, J., Mathews, R.S., & Gabelnick, F. (2004). *Learning communities: Reforming undergraduate education.* San Francisco, CA: Jossey-Bass.

Spohn, K., Crowther, T., & Lykins, C. D. (1992). *Appalachian access and success: A research project of the Ohio Board of Regents and a consortium of two- and four-*

year colleges and universities in Appalachian Ohio. Portsmouth, OH: Shawnee State University.

Stage, F. K., & Hossler, D. (1989). Differences in family influences on college attendance plans for males and female ninth graders. *Research in Higher Education*, *30*, 301-315.

Stauber, K. (2001). Why invest in rural America and how? A critical public policy questions for the 21st century. E*conomic Review, Federal Reserve Bank of Kansas City*, *86*(2), 33-63.

Stephenson, G. D. (1997). *The impact of a student success course on academic achievement and persistence* (Unpublished doctoral dissertation). University of Alabama, Tuscaloosa.

Strong American Schools. (2008). *Diploma to nowhere*. Retrieved from http://www.edin08.com/

Sydow, D. (1998). Making student retention an institutional priority. *Community College Journal of Research and Practice*, *22*(7), 635-644.

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition* (1st ed.). Chicago, IL: University of Chicago Press.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago, IL: University of Chicago Press.

Tinto, V. (1999). Taking retention seriously: Rethinking the first year of college. *National Academic Advising Association Journal*, *19*(2), 5-9.

Tobolowsky, B. F. (2005). *The 2003 national survey on first-year seminars: Continuing innovations in the collegiate curriculum (Monograph No. 41)*. Columbia, SC:

University of South Carolina, Nation Resource Center for the First-Year Experience and Students in Transition.

Townsend, B. K., Donaldson, J., & Wilson, T. (2004). *Marginal or monumental? Visibility of community colleges in selective higher education journals.* Paper presented at the Conference of the Council for the Study of Community Colleges, Minneapolis, MN.

Twale, D. J., & Schaller, M. A. (2003). Mandatory computer purchases and student preparedness: Implications for new student orientation. *Journal of College Orientation and Transition, 10*(2), 60-69.

Upcraft, M. L. (Ed.). (2003). Reflections on the future of orientation. In J. A. Ward-Roof & C. Hatch (Eds.), *Designing successful transitions: A guide for orienting students to college (Monograph No. 13)* (pp. iii-iv). Columbia, SC: University of South Carolina, Nation Resource Center for the First-Year Experience and Students in Transition.

Upcraft, M. L., & Farnsworth, W. M. (1984). Orientation programs and activities. *New Directions for Student Services, 1984*(25), 27-38.

U.S. Bureau of Labor Statistics. (2013). *Table A-17*. Retrieved from http://www.bls.gov/web/empsit/cpseea17.htm

U.S. Census Bureau. (2000). *Summary File 3, Table PCT25*. Retrieved from http://cpe.ky.gov/NR/rdonlyres/C5D76A0C-F2A9-4E66-BC11-639538A252C9/0/Bachelor_or_Higher_Pop_25_and_over_Counties_Map_20060919.pdf

U.S. Census Bureau. (2010). *PINC-03, Table 28*. Retrieved from http://www.census.gov/hhes/www.cpstables/032011/perinc/new03_028.htm

U.S. Department of Agriculture. (2004). *Rural Poverty at a Glance.* (Report No. 100) Washington, DC: U.S. Department of Agriculture.

Vaughn, G. (2000). *The community college story* (2nd ed.) Washington, DC: Community College Press.

Walters, E., & McKay, S. (2005). Strategic planning and retention within the community college setting. *College Student Affairs Journal*, *25*, 50-64.

Wilkie, C., & Kuckuck, S. (1989). A longitudinal study of the effects of a freshman seminar. *Journal of the Freshman Year Experience*, *1*(1), 7-16.

Willford, A. M., Chapman, L. C., & Kahrig, T. (2001). The university experience course: A longitudinal study of student performance, retention, and graduation. *Journal of College Student Retention, 2*(4), 327-340.

Wood, L. E., & Bischak, G. A. (2000). *Progress and Challenges in Reducing Economic Distress in Appalachia: An Analysis of National and Regional Trends Since 1960*. Washington, DC: Appalachian Regional Commission.

Wyman, F. J. (1997). A predictive model of retention rate at two-year colleges. *Community College Review*, *25*(1), 29-58.

Zeidenberg, M., Jenkins, P. D., & Colcagno, J. C. (2007). *Do student success courses actually help community college students succeed?* Community College Research Center Brief, No. 36.

Zwerling, L.S. (1980). Reducing attrition at two-year colleges. *Community College Review*, *8*(2), 55-59.

APPENDIX:

Academic Orientation Program Agenda

The AOP consists of four instructional components with each being approximately thirty minutes each that actively engages the student, requires student participation, and empowers the student with the skills, knowledge, and resource information needed to better enable successful outcomes. Total instructional time is approximately two hours.

Instructional Components

Session 1) Welcome and College 101 (power point presentation regarding student success, campus resources, etc.)

Academic course overload, test-taking problems, learning challenges and support services, absenteeism from class, poor study skills, course rigor, excessive withdrawals, academic skill deficiencies, etc.

Personal and family, issues, health problems, financial problems, stress, career goals, lack of motivation, too many obligations.

Social context, time management, work duties, partying, too much time on the computer, cultural diversity, extra-curricular activities, student activities

Session 2) SCC web site review (navigation of academic, financial aid, student life, etc. utilizing computer)

Browse academic affairs and students affairs web links to access information about curriculum plans of study, academic advising resources, financial aid process and procedures, and student clubs and intramural activities.

Session 3) Email, People Soft, Blackboard (student access and usage features)

Set-up email access to assure student communication with the institution is available from a distance. Student use of Peoplesoft features to learn about their student self-service panels and how to utilize. Provide example of Blackboard shell and usage features for students who will have hybrid access on regular online courses.

Session 4) Program Planning and Academic Advising (develop and print class schedule)

Review assessment and placement scores, make course recommendations, and assist student with their search and enrollment process for appropriate courses. Finalize and approve course selections, complete enrollment transaction, and provide student with duplicate copies of schedule of classes.

VITA

James M. Davis

Counselor/Assistant Professor

Somerset Community College

Somerset, Kentucky

Education:

Doctoral Candidate, Ed.D, Educational Leadership & Policy Studies, Eastern Kentucky University, August 2010-December 2013.

Master of Arts, Educational Psychology, Union College, May 1994-August1996

Bachelor of Science, Psychology, Eastern Kentucky University, August 1988-May 1993

Experience:

Somerset Community College

Education Program Coordinator	Appointment October 15, 2013
Counselor/Assistant Professor	Appointment July 1, 2008
Counselor/Instructor	Appointment July 1, 2005

Union College

Academic Program Consultant	January 2008-March 2009

Midway College

Education Program Liaison	January 2007-December 2009

University of Kentucky

Regional Coordinator January 2000-December 2004

Southeast Community College

Counselor September 1998-December 1999

Teaching:

General Psychology, PSY 110, Somerset Community College

Cultural Diversity, SOC 330, Lincoln Memorial University

Workplace Principles, WPP 200, Somerset Community College

Leadership/Awards/Presentations:

Career & College Readiness, Laurel County Schools, August 2013

Brain Anatomy & Physiology: "We Are What We Eat", Tri State Teaching of Psychology Conference, September 2010

Career Education: "Don't Leave School Without It", KCTCS New Horizons Teaching & Learning Conference, May 2007

College Works Program, Middle School outreach grant award $2500.00, 2010

Counseling Leadership Award, The Senate of the Commonwealth of Kentucky, 2008

President, Upper Cumberland Counseling Association, 2001 and 2009

Counselor of the Year, 2002-03, Upper Cumberland Counseling Association