APPALACHIAN BRIDGES TO THE BACCALAUREATE: INSTITUTIONAL PERCEPTIONS OF COMMUNITY COLLEGE TRANSFER SUCCESS

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APPALACHIAN BRIDGES TO THE BACCALAUREATE: INSTITUTIONAL PERCEPTIONS OF COMMUNITY COLLEGE TRANSFER SUCCESS

A COMPANION DISSERTATION

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education in the College of Education at the University of Kentucky

By

Christopher M. Phillips

Lexington, Kentucky

Director: Dr. Jane Jensen, Director of Graduate Studies

Lexington, Kentucky

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ABSTRACT OF DISSERTATION

APPALACHIAN BRIDGES TO THE BACCALAUREATE: INSTITUTIONAL PERCEPTIONS OF COMMUNITY COLLEGE TRANSFER SUCCESS

Statement of the problem. Appalachian community colleges are dealing with a dynamic transfer policy environment and implementing practices that either foster or impede transfer student success. The problem in this dissertation is to discern how Appalachian community colleges are making sense of transfer policy changes and conducting practices to address student transfer success. Although individual factors must be considered by community colleges, they often are out of the control of the institution. This study focused on the institutional factors, including the ways that organizational structures and transfer policies contribute to the success of a community college’s transfer program.

Design. This companion study was conducted by a four-member research team. In order to describe the transfer population and institutional characteristics, a quantitative analysis was conducted for the student population, which included 338 spring and summer 2009 Associate in Arts and/or Associate in Science (AA/AS) graduates from four Appalachian community colleges. This analysis indicated that individual student characteristics did not explain the differences in institutional transfer rates. Two of the institutions were identified as statistically significant institutions promoting transfer success. Students from these high-impact community colleges were found to be at least two times more likely to transfer than students attending the low-impact institutions.

Each member of the research team looked at a different aspect of the transfer experiences of the cohort. Two components explored institutional perspectives by interviewing 27 faculty, staff, and leaders from the four community colleges. The other two components examined student perceptions of their community college transfer experiences.

Major conclusions. My individual component of the companion study examined transfer perceptions of 27 community college faculty, staff, and college leaders from four Appalachian community colleges. Negative and positive transfer practices were discovered in response to how community colleges make sense of the college mission with regards to Appalachian student desires and economic opportunities. Findings indicated that negative practices were the norm as Appalachian community colleges viewed most students as being better served socially and economically through non-transfer programs or transfer programs housed on community college campuses.
ACKNOWLEDGMENTS

The following dissertation is in the companion framework and the technical report, chapter two, was jointly completed with my colleagues Amber Decker, Michelle Dykes, and Nancy Preston. They are to be thanked for their time, effort, and diligence in completing this project. My dissertation chair, Dr. Jane Jensen, has been an invaluable mentor throughout this dissertation process. Dr. Jensen’s critical assessments, advice, and persistence in supporting and encouraging our efforts were paramount to the completion of this project. I want to thank the entire Dissertation Committee, and outside reader, for their work: Dr. Alan DeYoung, Dr. Nicole Lewis, Dr. Steve Borgatti, and Dr. Michael Mullen. Each provided guidance and assistance in completing this project. In addition, Dr. Steve Clements provided support to this project and is to be thanked.

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Chapter 1:
Introduction

This collaborative study examined the ways in which institutional and student characteristics impact the pathway to the baccalaureate degree for Appalachian community college students in eastern Kentucky. The current emphasis in postsecondary education policy in Kentucky is to increase the educational attainment rate within the Commonwealth, with a goal of doubling the number of baccalaureate degree holders by 2020. The Appalachian region of Kentucky has the lowest rate of academic attainment within the state coupled with high poverty and unemployment making this area one of the most economically disadvantaged region in the United States.

The following dissertation incorporates three manuscripts that were developed in part by a four-member research team. Team members are a part of the EdD cohort program at the University of Kentucky (UK), a member of the Carnegie Project on the Education Doctorate (CPED). CPED is a national effort intended to strengthen the education doctorate by making it a more relevant degree for the academic leaders for the nation’s educational system. The CPED pedagogy develops scholarly practitioners who combine practical wisdom with professional skills and knowledge to identify and solve problems of practice through intensive collaboration. The UK EdD cohort program integrated this pedagogy through collaborative projects throughout the coursework culminating in a companion dissertation by research teams that examined problems of practice in community colleges.

During the last semester of coursework, program faculty and cohort members identified mutually acceptable teams based on research interests and complementary skill sets. My research team is comprised of Amber Decker, Michelle Dykes, and Nancy
Preston. We all had a common research interest related to the bridge between community colleges and four-year institutions. In our course readings for the program and our professional careers, we understood that few students who enter the community college with the intent to transfer actually do. We wanted to explore this problem of practice by focusing on a specific geographic region and by capturing the voices of different populations who are affected by this issue. After months of discussion and an extensive literature review, the team settled on an in-depth, mixed-method study of four Appalachian community colleges.

The collaborative data presented in Chapter 2, which was gathered in fall 2010, provided a knowledge base for the individual studies, a detailed description of the population 2009 Appalachian community college graduates, and identified specific issues that needed further study. This study explores the transfer policy climate and institutional transfer practices related to the educational needs of the region. Each researcher developed his or her own research questions with careful consideration of how the results might be connected upon completion of the study. A synthesis of these findings and results are reflected in Chapter 2, Building the Bridge to Transfer Success: An In-Depth Study of Four Appalachian Community Colleges.

My individual components of this dissertation consist of chapters 3 and 4. Chapter 3 is my primary research study titled, Institutional Perceptions of Community College Transfer Success. In this study, I interviewed 27 participants from four Appalachian community colleges to discover their perceptions of policies and practices related to student transfer success. These participants included faculty, staff, and college leaders that dealt directly in practice with community college transfer students.
Conversational interviews include perceptions from most areas of the community college including admissions and financial aid staff, tutoring and student support staff, transfer advisors, career counselors, academic and technical instructors, deans and associate deans, and college provosts. The four Appalachian community colleges included in the study resulted in visits to nine college campuses in eight eastern Kentucky counties.

The essential purpose of the study was sense-making of employee perceptions of transfer policies and mission. These transfer perceptions are internalized and reflected in the daily practices of the colleges. These transfer practices revealed during the interview process demonstrates the attitudes and perceptions of college mission. Both negative and positive transfer practice were found to assist or block successful student transfer from the community college. The negative transfer practices were found to be typical, but not as a result of colleges misunderstanding what those positive practices were or how to implement them. The negative practices are a result of how community colleges make sense of the system and institutional mission, the Appalachian regions unwillingness to relocate, and the general lack of economic opportunities for transfer successes coupled with the regions emphasis on technical employment.

Chapter 4 is an essay discussing a problem of practice surrounding the thesis of my dissertation titled, Employability of Associate Degree Graduates. A fundamental component of my research study in chapter 3 was hearing perceptions of student transfer during the ethnographic conversational interviews from four community colleges in Appalachia. If Appalachian students are perceived to be place or location bound by a variety of circumstances, then traditional transfer is simply not a feasible option to pursue. This perception also makes baccalaureate degrees offered on the community
college campuses more appealing to meet student needs that are place-bound. In addition, Appalachia’s regional economy is plagued with higher poverty rates, lower incomes, and higher unemployment rates relative to other parts of Kentucky. Much of these institutional economic problems have shaped Appalachia’s economy toward technical or vocational occupations, further placing pressure on community colleges to meet the regions’ economic demands through an emphasis on technical or vocational programs, negating the emphasis on transfer toward the baccalaureate.

Chapter 4 seeks to analyze the employment opportunities for associate degree graduates in light of the perceptions that Appalachia students are not, in general, interested in relocating. Employment and wages are better for technical or vocational graduates, as opposed to transfer associate degree graduates. The essay also explores the benefits to a student academically and economically that seeks and earns a transfer associate degree, but does not successfully transfer. Most students earning the transfer associate degree do not successfully transfer, further reinforcing the application of negative transfer practices discovered in chapter 3. Chapter 4 explores the economics of the institutional perceptions and practices explored in chapter 3. Chapter 4 provides a link between the research question of how do Appalachian community colleges make sense of transfer policies and practices with the economic assertion that community college students in Appalachia may actually end up benefiting from not transferring. The basic assertion usually made regarding community college student transfer is that community college students typically benefit from successful transfer to a four-year institution and earning the baccalaureate rather than completing a two-year technical program at the community college.
My primary thesis in chapters 3 and 4 is to develop and understanding of why and how faculty, staff and college leaders at four Appalachian community colleges in Kentucky make sense of institutional transfer policies. These perceptions were expressed during ethnographic conversational interviews with faculty, staff, and college leaders at the four Appalachian community colleges that revealed numerous transfer practices. These transfer practices conducted on Appalachian community college campuses either encourage and foster or discourage and impede community college student transfer success. A major underlying rationale discovered was the prevailing negative transfer practices that reflect an Appalachian economy that rewards community college technical graduates over transfer students that earn baccalaureate degrees. Perceptions of students being portrayed as place bound in Appalachia provides a further explanation of why negative transfer practices seemed to dominate positive transfer practices in this study.

These contrasting views show that institutional policies and practices do matter to community college student transfer success. The research rationale is to make sense of the transfer perceptions of those faculty, staff, and college leaders dealing directly with student transfer through ethnographic interviews within the context of the evolving mission of the community college. If community colleges in Appalachia cope well with changing transfer policy environment regarding student transfer and adapt a positive transfer culture (Serban et al., 2008) they will do a better job at improving student transfer success. If community colleges in Appalachia recognize a mismatch between student transfer success and student demands, then transfer practices may lead to a negative transfer culture that promotes employment opportunities over transfer paths.
Chapter 2:
Building the Bridge to Transfer Success:
An In-Depth Study of Four Appalachian Community Colleges
Amber Decker, Michelle, Dykes, Christopher Phillips, and Nancy Preston

Executive Summary

Background

The role of community colleges in facilitating student transfer is critical to the achievement of national, state, and regional goals for educational attainment. Upward economic mobility is more strongly tied to educational attainment today than at any other time in America’s history. Research indicates that those born into poverty are four times more likely to reach the top income quintile as adults if they have a baccalaureate degree. Without a degree, nearly half of those born into the lowest income quintile remain there as adults (Furchtgott-Roth, Jacobsen, & Mokher 2009). Given that community colleges enroll a disproportionate number of low-income students, their role in the postsecondary continuum is pivotal to ensure the upward mobility of those needing help the most. This study focuses on the unique geographic region of Appalachia Kentucky, which has been described as one of the poorest areas in the nation (USDA, 2008). Most counties in this region have only single-digit percentage rates of baccalaureate degree holders (KY CPE, 2008).

The purpose of the study was to examine the ways in which institutional and student characteristics matter in the pathway to the baccalaureate degree for Appalachian community college students in eastern Kentucky. Dougherty (1994) asserts that higher education must explore the impact of structural factors on the gap in baccalaureate degree attainment. Although two-thirds of this gap can be attributed to differences in individual student characteristics, studies indicate that students who start at a community college
receive 11-19% fewer baccalaureate degrees than four-year college entrants (Dougherty, 1994). That this sizable gap cannot be accounted for by student characteristics warrants the exploration of institutional factors that influence successful transfer. This study controlled for individual student characteristics and included community colleges operating within the same geographic area and policy environment to provide a reliable comparison of institutions.

**Methodological Approach**

This study employed a mixed-method approach, comprised of a quantitative analysis of student outcome and survey data as well as qualitative study of student, faculty, and staff perspectives on the transfer experience. The study design included two quantitative components: (a) descriptive and inferential statistical analysis of student data describing the transfer population and identifying institutional and student characteristics that were significant to transfer success and persistence, and (b) a survey to determine if transfer students’ perceptions of mattering predict their transfer persistence (Dykes, 2011). Qualitative research was conducted in two phases. First, interviews were conducted with faculty, staff, and administration at each of the participating community colleges to explore their perceptions of institutional factors that affect transfer success (Decker, 2011, Phillips, 2011). Second, interviews with a sub-population of students from the participating colleges who successfully transferred were conducted to examine the ways in which location-bound adults attending college, specifically nontraditional-aged Appalachian women perceive the supports and challenges to baccalaureate attainment (Preston, 2011).
The setting for the study was Appalachia Kentucky. In addition to a history of severe and persistent poverty, this eastern part of Kentucky also has one of the lowest rates of education achievement in the country. Although statewide educational achievement is low—only 19.7 percent of Kentuckians have earned baccalaureate or higher degrees (U.S. Census Bureau, 2008)—most counties in the Appalachian region of Kentucky have only single-digit percentage rates of baccalaureate degree holders (Kentucky Council on Postsecondary Education, 2008).

Four community colleges operate within the study’s geographic region. Analysis was conducted to determine the significance of attending a particular community college on transfer to a four-year institution and persistence at the four-year institution. These results identified which participating community colleges had higher transfer success when controlling for individual student characteristics, thereby suggesting that institutional factors played a role in the disparity among rates of transfer. Two of the institutions were identified as statistically significant institutions promoting transfer success. Students from these high-impact community colleges were at least two times more likely to transfer than students attending the low-impact institutions controlling for gender, age, grade point average, and total cumulative hours.

Key Findings

The key findings of the study confirm the literature on transfer culture and provide new insights that are regionally specific, as well as a more in-depth discussion facilitated by the team approach employed in exploring the topic of transfer. The framework used to describe the findings and results of the study was developed through an emergent design. The framework includes six elements and helps to examine the
interface of informal and formal structures that plays a role in the differentiation between high-impact and low-impact institutions. Findings and results of the study help to further explain these differences in transfer success among the participating institutions. A synthesized analysis identified four major themes that seem to contribute to transfer success. A summary of each theme and corresponding elements is provided below.

**The Role of the Institution.** Study participants reported that the institutions’ understanding of students’ multiple social and economic roles is critical to transfer success. Well-integrated transfer services, on-campus baccalaureate programs, and flexible rules and policies were all mentioned as indicators that institutions are aware of the struggles that students encounter when trying to balance multiple life roles.

**The Role of Advising.** Advising was the most prevalent practice reported as key to successful transfer. Students asserted that misadvising resulted in unnecessary coursework and increased time and cost to degree. Community college faculty and staff stated that a lack of updated transfer information was a major challenge to accurate advising.

**The Role of Faculty.** Students’ perceptions of acceptance by faculty in the classroom significantly predicted the probability of persistence toward a baccalaureate degree. This indicates the importance of faculty participation in the transfer process. Interviews with community college faculty found a wide disparity of understanding of the critical nature of their role in transfer success for students.

**The Role of Institutional Partnerships.** The two high-impact institutions had strong partnerships with four-year institutions including a high number of baccalaureate programs available on campus. Many students stated that they were unable to leave the
region, and they relied on on-campus programs in order to earn their baccalaureate degree. Other key community partnerships were also identified as critical to ensure accurate perceptions of the purpose of community colleges within the educational continuum.

Recommendations

The findings of the study resulted in several recommendations to promote increased student transfer and persistence to the baccalaureate degree:

• expand system-wide transfer agreements,
• increase collaborative agreements between two-year and four-year institutions,
• develop a comprehensive, student-centered advising model,
• implement a strong system of internal and external communications,
• advance the mandates required by House Bill 160 (the transfer bill),
• create institutional partnerships to meet the needs of location-bound transfer students, and
• integrate transfer services into the entire student experience.

Policy Landscape

“Now is the time to build a firmer, stronger foundation for growth that will not only withstand future economic storms, but one that helps us thrive and compete in a global economy. It’s time to reform our community colleges so that they provide Americans of all ages a chance to learn the skills and knowledge necessary to compete for the jobs of the future.”

- President Barack Obama

The above quote by President Obama shows the dramatic change in the federal approach to the increasing importance of our nation’s community colleges. As of 2011, over twelve million students attend community colleges in the United States each year
(American Association of Community Colleges [AACC], 2011). To illustrate the changes toward a national oversight of community colleges, the National Office of Community College Initiatives is now a part of the College Board Advocacy and Policy Center. In addition, the Bush and Obama Administrations have recognized the importance of community colleges. President Bush funded community colleges to develop homeland security community-based programs and job training. President Obama started the American Graduate Initiative to provide a ten year $12 billion plan to invest in America’s community colleges. President Obama with second lady Dr. Jill Biden held the first White House Summit on Community Colleges in October 2010 to discuss and highlight the importance of funding and supporting America’s community colleges.

During the 2010 Kentucky legislative session, policymakers passed House Bill 160, or the transfer bill, to ease students’ transition from community college toward the baccalaureate. House Bill 160 established the following outcomes:

- Beginning in 2012-2013 academic year, associate degree programs will be limited to 60 credit hours and baccalaureate degree programs will be limited to 120 credit hours for most programs.
- KCTCS and public universities will implement a statewide agreement for alignment of lower-level Associate in Arts and Associate in Science coursework with standard core content and learning outcomes as well as a standardization of college transcriptions.
• KCTCS will develop, implement, and maintain a numbering system for lower-level general education courses and establish statewide course classification and procedures to monitor the transfer and crediting of lower-level courses.

• Community college students, upon admission to a public university with an earned Associate in Arts or Science degree, will be deemed to have met all general education requirements and are exempted from repeating similar courses in a baccalaureate program beginning in 2012.

• Community college transfer students will receive priority for admission over out-of-state students if they meet the same admission criteria.

If changes in programs, courses, or learning outcomes occur, colleges must verify that a clear path to the baccalaureate degree still exists for community college students who plan to transfer.

Mission creep, or mission drift, in the field of community and technical colleges is defined as the transition from the community college’s primary mission shift from transfer to vocational programs in the 1950’s and 1960’s (Dougherty, 2001; Brint & Karabel, 1989). Through the years, community colleges have absorbed several other missions such as workforce training, remedial education and community education (Cohen & Brawer, 2003; Dougherty, 1994; Kasper, 2002). These multiple missions require faculty and staff support as well as program development and funding sources.

Another key issue is resource allocation among these various missions. These competing interests in a comprehensive community college often breed power struggles among faculty, programs, and divisions (Dougherty & Townsend, 2006).
Community colleges struggle with competing missions to meet the needs of multiple stakeholders including students, businesses, governments, and the public. Transfer programs were the primary mission of the community college at its founding (Townsend & Wilson, 2006). Koos (1924) found that the early community college offered about three-fourths of its coursework in transfer or liberal arts. This collegiate function of the community college best paralleled the four-year institution making the community college viable, scholarly and credible to parents, state governments, and students. The vocationalization of community colleges was achieved out of necessity for meeting economic demands, technology and globalization (Brint & Karabel, 1989). This change in mission and direction of community colleges was fostered by government policymakers, student demands, and business interests (Dougherty, 2001).

Given the realities of the Great Recession, the global economy, and the business community demands, the importance of the transfer mission of community colleges has never been more urgent in the nation, as well as for economically marginal rural regions of the country such as Appalachia, including Eastern Kentucky. Kentucky’s Council on Postsecondary Education (CPE) has set an aggressive goal of doubling the number of baccalaureate degree holders statewide by 2020. The purpose of this initiative is to realize a Kentucky goal of raising the standard of living and quality of life to the national average by 2020. According to CPE (2007) and the Appalachian Regional Commission (ARC) (ARC, 2010), the fastest way to increase per capita income is to raise the percentage of Kentuckians with a four-year degree. States with higher numbers of baccalaureate degree holders generally have a higher quality of life and stronger, more diverse economies (CPE, 2007). Through this double the numbers initiative, CPE has
placed an increased focus on the community college mission toward transfer in order to meet the ambitious goal of nearly 800,000 baccalaureate holders by 2020.

However, because of limited employment opportunities in Appalachia for baccalaureate degrees, technical or vocational education provides better opportunities for students to gain employment without leaving the region (Jepsen, 2010). Community college personnel tend to perceive that technical or vocational degrees have higher economic value due to being tied to the local labor markets and therefore meeting the economic needs of place-bound students. Many of the baccalaureate programs currently offered to place-bound students in the region are in disciplines that have saturated the local job markets. It is imperative that educational leaders determine how to bridge the gap between increasing the number of baccalaureate degree holders in Appalachia while simultaneously meeting the needs of local labor markets through workforce development.

CPE oversees and coordinates Kentucky’s educational system as directed by the Kentucky Postsecondary Education Improvement Act of 1997. This bill, also known as House Bill 1, created the Kentucky Community and Technical College System (KCTCS), the state’s ninth institution of higher education. House Bill 1 merged the Commonwealth’s technical and community colleges into 15 separate community and technical college districts. In 2004, the General Assembly added Lexington Community College to KCTCS, and subsequently the institution changed its name to Bluegrass Community and Technical College. Today, KCTCS has 16 community and technical college districts with spring 2011 enrollment of over 100,000 students. The primary directive from House Bill 1 was to increase the educational level of Kentuckians. This
includes increasing the number of Kentuckians with associate degrees, but also increasing the number of baccalaureate degree holders.

In 2011, the sixteen KCTCS college presidents recommended two primary strategies to transform the transfer process. First, the college presidents endorsed the idea to develop a holistic/integrated approach to transfer by developing coherent structures and integrated processes in the design and delivery of instructional and student services utilizing a national model of excellence. The second transformation strategy endorsed by the KCTCS President’s Leadership Team was to utilize a comprehensive approach to developing partnerships and agreements with four-year institutions by creating pathways for students completing associate degrees to transfer to baccalaureate degree programs.

This study examines the institutional and student characteristics that matter in the pathway to the baccalaureate degree. The following review of literature provides background to situate the study within the context of prior research and considers existing transfer research as it relates to a description of Appalachia as a unique context for the study, community college origins and missions, and the predictors of transfer success. The results of a mixed method study of transfer success, defined as successful retention of students into their major course of study in the baccalaureate, are then provided followed by recommendations for policy and practice appropriate for community and technical college leaders faced with the challenges of bridging transfer to the baccalaureate for students in economically vulnerable rural regions.

**Appalachia as Context**

“Appalachia contains many sophisticated urban centers, and in those communities life is not much different from that in cities across America. But there is an underlying difference that comes from our past, our heritage.” - Mari-Lynn Evans
Appalachia is defined by the ARC (2010) as “a 205,000 square-mile region that follows the spine of the Appalachian Mountains from southern New York to northern Mississippi.” The ARC was formed by Congress in 1965 as an economic development agency that serves 420 counties in 13 states. The formation of this agency resulted from the growing awareness of the poverty that existed in the region (ARC, 2010). Senator Jack Kennedy, during his 1960 presidential campaign, visited the central Appalachian region and singled out the area as impoverished. When President Lyndon Johnson launched his War on Poverty programs a few years later, a primary focus was on Appalachia (Santelli, 2004). The evolution of Appalachian culture has been influenced by the opinions of outsiders. The idea that Appalachia is a peculiar place characterized by homespun lifestyles is evident in popular culture. The media has presented Appalachia as being represented by the cartoon character Snuffy Smith who spends his time hiding his moonshine from the revenuers. Darker portrayals of Appalachian culture can be found in the movie Deliverance that presents Appalachians as being dangerous savages (Santelli, 2004). Harkins (2004) argues that even government programs and policies, including the 1960’s War on Poverty, contributed to the societal view of Appalachians as being materially and culturally deprived.

Billings, Norman, and Ledford (1999) observed that “…mountain people, it seems are acceptable targets for hostility, projection, disparagement, scapegoating, and contempt” (p.3). This long-held view that Appalachian citizens are the root cause of the social and economic problems has been found not only in the voices of “outsiders”, but also in the opinions of Appalachian authors themselves. In 1962, Letcher County attorney, Harry Caudill published Night Comes to the Cumberlands: A Biography of a
Depressed Area. This book, which became a classic of Appalachian literature, placed much of the blame for the extreme poverty and other social problems of the region squarely on the back of the residents. Other Appalachian authors also propagated the stereotypical view of mountain culture. Weller (1965) reported that the people of Appalachia were fatalistic in their views and that their view of human activity was a state of being rather than doing. These views have extended to the educational arena. While, as reflected by Caudill (1962), the high dropout rates and the low rates of educational attainment have often been attributed to the poor efforts of students, others have argued that this is another case of blaming the victim. Alternatively, a social reproduction view of educational attainment in Appalachia suggests that the poor performance of schools and students results from the external control of regional wealth and the lack of availability of industries that provide high-wage jobs (Shaw, DeYoung, & Rademacher, 2004).

The current study utilizes this rich context of Appalachian history and culture as a unique background by which to explore what factors contribute to transfer success in rural regions. Should transfer be a primary mission for community colleges? Does successful transfer hinge on the student’s abilities and background characteristics? Can the institution really make a difference in individual student success? The following sections speak to these questions as well as continuing to situate the current study within existing literature.

Transfer Mission

Higgins and Katsinas (1999) argue that the transfer mission of community colleges is the most significant within these multiple-mission institutions, providing
students with access to the social and economic benefits of a baccalaureate degree. The concept of the community college began in the early 1900s with the establishment of the nation’s first public community college, Joliet Community College in Illinois in 1901 (Kasper, 2002). In the early years, community colleges were created as extensions of the local school systems in communities without access to universities (Ratcliff, 1978). Communities with a university presence often established community colleges to serve freshman and sophomore levels so that the four-year universities could focus on upper-division and graduation education (Dougherty, 1994).

In the 1930s, community colleges shifted their focus to provide job training to address the widespread unemployment associated with the Great Depression (Kasper, 2002). After World War II, the GI Bill and the increased skill level required by labor market demands promoted the need for more postsecondary opportunities. In 1947, the Truman Commission Report was published recommending the establishment of a network of public community colleges that would charge little or no tuition, so that every capable American had access to a college education (Thompson, 1978). As Baby Boomers became of age to attend college in the 1960s and 1970s, community college enrollments surged and additional facilities were constructed during this period of great economic growth. Today, community colleges enroll about 50% of total undergraduates (Students at community colleges, 2009), placing them in a critical role in the world of higher education.

Community colleges serve as the primary access point to postsecondary education for many underrepresented groups, such as minority, first-generation, nontraditional, and low-income students (Bailey & Morest, 2006). The role of the community college in the
transfer process is to ensure that students persist and make the transition to the four-year institution. It is imperative for community colleges to establish best practices to support their students to enroll, persist, and transfer to four-year institutions. Otherwise, America’s community colleges will unwittingly serve as a tracking mechanism, losing in the transfer process a substantial number of students who aspire to a baccalaureate degree (Pincus, 1980). Considering that transfer has such major societal implications, it is critical that we determine what factors contribute to successful transfer. What are the predictors of transfer success? The next section will provide the existing research addressing this question.

**Predictors of Transfer Success**

Numerous studies describe the influences of student and institutional characteristics on successful transfer, defined as community college students who persist to the senior year at the four-year institution. This relevant literature provides a conceptual framework for the proposed study. Student characteristics that predict successful transfer are organized into two categories, (a) characteristics of students likely to transfer to a four-year institution, and (b) characteristics of students likely to persist at the four-year institution. Institutional factors that influence successful transfer include (a) relationships between community colleges and four-year institutions, (b) institutional policies and practices relating to transfer, and (c) organizational environments and structures.

**Student Characteristics**

Numerous studies have focused on student-oriented factors that predict persistence in college and transfer success (Adelman, 1992; Crook & Lavin, 1989;
Grubb, 1991; Kinnick & Kempner, 1988). While community colleges may have limited control over many of these factors, student characteristics are important in identifying and understanding why some students successfully transfer and earn a baccalaureate while others do not. Studies indicate that being low-income and first-generation (Choy, 2002; Ishitani, 2006; Nunez & Cuccaro-Alamin, 1998); being female and/or a minority (Eddy, Christie, & Rao, 2006; Lee & Frank, 1990; Velez & Javalgi, 1987); having low peer and parent support (Harbin, 1997); and being academically underprepared (Harrell & Forney, 2003; Striplin, 1999) have a negative impact on college persistence and transfer success. The rigor of the high school curriculum (Choy, Horn, Nunez, & Chen, 2000; Horn & Kojaku, 2004; Pascarella, Wolniak, Pierson, & Terenzini, 2003) and community college GPA (Cejda, Kaylor, & Rewey, 1998; McGrath & Spear, 1991) have also been found to be related to persistence and transfer.

Even though certain individual student characteristics can predict successful transfer and persistence, a gap still exists between baccalaureate degree attainment of students who start at the community college and those who start at the four-year institution. Although two-thirds of this gap can be attributed to differences in individual student characteristics, studies indicate that even when these differences are controlled, students who start at a community college receive 11-19% fewer baccalaureate degrees than four-year college entrants (Dougherty, 1994). What can institutions do to influence successful transfer?

**Institutional Characteristics**

Other studies have instead focused on institution-oriented factors (Laanan, 2004; Eggleston & Laanan, 2001; Zamani, 2001). In contrast to student characteristics,
institutional factors can be influenced by the organization and therefore provide the opportunity for significant improvement in the transfer process. Amey, Eddy, and Campbell (2010) suggest that collaborative partnerships between two- and four- year institutions provide benefits to students, institutions, and the society. Dougherty (1994) posits that one factor in students being unsuccessful in the transfer process is the difference between the culture of two- and four- year institutions. Astin (1984) suggests that the quality of any policy or practice is directly related to the extent of that policy or practice to promote student involvement. Schlossberg (1989) asserts that colleges must ensure that programs, practices, and policies are designed in ways that help people feel that they matter. The creation of campus environments that demonstrate to all students that they matter should lead to increased involvement and accomplishment of academic and personal goals.

A number of studies attempt to identify the institutional factors that promote transfer and persistence. The transfer process is complex and presents challenges to studying the value of discrete institutional structures, policies, and practices that make a difference. Various uncontrollable factors such as the college’s geographic location and local economic contexts can affect the success of a college’s transfer programs. Cohen (2003) found that institutional transfer rates typically vary little from year to year because it is difficult to ascertain what to change in order to ensure better outcomes. Numerous studies have found that the most promising practices within the control of the institution involve such factors as academic advising processes (Jenkins, 2007; Pascarella & Terenzini, 1991), transfer centers (Poisel & Stinard, 2005), and formal and informal
relationships with four-year institutions and other community organizations (Amey, Eddy & Campbell, 2010).

Existing research confirms that both student and institutional factors matter in the pathway to the baccalaureate. How do these two types of factors relate to one another? An institution must gain an understanding about its student population in order to provide programs and services that will aid in their success. Numerous studies have found that students who felt important to even one person at the institution persisted and completed at much higher rates than those students who were not engaged (Astin, 1984; Schlossberg, 1989; Tinto, 1975, 1993). This framework of mattering connects the importance of exploring the perceptions of students and institutional personnel in the context of transfer. The following section presents the foundation of the mattering framework (Rosenberg & McCullough, 1981).

**Mattering**

Rosenberg originally coined the term “mattering” as the feeling that others depend on us, are interested in us, and are concerned about what happens to us (Rosenberg & McCullough, 1981). Schlossberg and Warren found that students were academically engaged if they felt they mattered to an advisor or institution (Schlossberg, 1989). This concept is related to Astin’s (1984) theory of student involvement that purports that a student’s level of social and academic involvement on campus positively impacts persistence. Tinto (1975, 1993) also found that students who were socially integrated and involved in the college environment were more likely to persist. Schlossberg (1989) asserts that colleges must ensure that programs, practices, and policies are designed in ways that help people feel that they matter. The creation of
campus environments that demonstrate to all students that they matter should lead to increased involvement and accomplishment of academic and personal goals.

This study is built upon the assumption that community colleges can influence transfer success. Numerous reports focus on student characteristics and indicate that students with similar backgrounds, abilities, and aspirations who enter the community college earn significantly fewer baccalaureate degrees than those students who start college at a four-year institution (Anderson, 1984; Nunley & Breneman, 1988; Velez, 1985). Institutional practices have shown to make a difference in successful student transfer. Schlossberg’s (1989) assertion that institutions have a responsibility to develop programs and policies that make students feel as if they matter implies that the cultural environmental must also be considered. This study focused on providing an understanding of the various pathways that Appalachian community college graduates travel in pursuit of the baccalaureate degree.

**Study Design**

The purpose of the study was to examine the ways in which institutional policies and structures impact the pathway to the baccalaureate degree for Appalachian community college students in Kentucky. To accomplish this, a mixed-method study was employed, comprised of a quantitative analysis of student outcome and survey data as well as qualitative study of student, faculty, and staff perspectives on the transfer experience. Quantitative analysis included two components: (a) descriptive and inferential statistics describing the transfer population and identifying institutional and student characteristics that were significant to transfer success and persistence, and (b) logistic regression analysis and odds ratios to determine transfer students’ perceptions of
mattering to their transfer success (Dykes, 2011). Qualitative research was conducted in two phases. First, interviews were conducted with faculty, staff, and administration at each of the participating community colleges to explore their perceptions of institutional factors that affect transfer success (Decker, 2011, Phillips, 2011). Second, interviews with a sub-population of students from the participating colleges who successfully transferred were conducted to examine the ways in which location-bound adults attending college, specifically nontraditional-aged Appalachian women perceive the supports and challenges to baccalaureate attainment (Preston, 2011). This latter component of the study is important because mobility is a particularly challenging aspect of post-secondary achievement for rural students.

**Quantitative Methods**

In order to describe the transfer population and identify institutional and student characteristics that were significant to transfer success and persistence, a quantitative analysis was conducted to calculate the overall transfer rate for the student population and for the four individual colleges to measure student transfer success. Institutional and overall transfer rates were calculated as the percentage of Associate in Arts and/or Associate in Science (AA/AS) graduates from spring and summer 2009 that successfully matriculated to and persisted at the four-year institution through fall 2010 (See Appendix A). Student characteristics included age, gender, race, socioeconomic status, grade point average, and total cumulative hours earned upon graduation from the community college with the AA/AS degree. The study population included 338 AA/AS graduates from four KCTCS Appalachian community colleges. These descriptive statistics confirmed that the four participating community colleges were similar providing a reliable comparison of
institutions. These colleges also operate in the same policy environment, serve similar student populations, and are similar in size and scope. These commonalities provide the opportunity to research other institutional factors that may play a role in distinguishing between high impact and low impact community colleges in the context of successful transfer.

The current study uses both the institution and the student as the unit of analysis to examine in what ways institutional and student factors can help explain the differences in transfer rates. Additional analysis was conducted to determine the significance of attending a particular community college on transfer to and persistence at the four-year institution. These results identified which participating community colleges had higher transfer success when controlling for individual student characteristics, thereby suggesting that institutional factors played a role in the disparity among rates of transfer. Two of the institutions were identified as statistically significant institutions promoting transfer success and will subsequently be labeled “high impact”. Students from these high impact community colleges were at least two times more likely to transfer than students attending the low-impact institutions controlling for gender, age, grade point average, and total cumulative hours.

The second quantitative component utilized the Mattering Scales Questionnaire for College Students (MSQCS) (Kettle, 2001), which was administered in spring 2011 to obtain students’ perceptions of mattering (See Appendix B). The main purpose of the assessment was to determine if students with high perceptions of mattering have higher retention rates (Schlossberg, 1989). The MSQCS contains 45 questions with five subscales including administration, advising, peers, multiple roles, and faculty.
subscales measure perceptions about a variety of institutional policies and practices and relationships that promote a sense of mattering for students. Results allowed for a comparison of student perceptions of mattering at four community colleges that operate in similar contexts. This provided an opportunity to explore institutional structures, practices, and policies that might contribute to heightened perceptions of mattering.

**Qualitative Methods**

The qualitative component of the study included two parts. First, interviews and site visits were conducted at the four participating community colleges to gain an understanding of how college leaders and transfer staff and faculty perceived how the organizational structures, policies, and practices of their institutions are related to successful transfer. Twenty-seven individuals were interviewed, including those holding leadership positions of vice president or above, as well as staff and faculty positions directly involved with the transfer process. Significant themes that emerged from the interviews were investigated further through secondary data sources including college websites, organizational charts, transfer handbooks, guides and other supporting documentation. Results of the interviews and secondary data sources were compared to prior research through an extensive literature review in order to identify any major discrepancies to earlier findings.

Second, because loyalty to place is often cited as a key value for Appalachian residents and non-traditional age students are an important population in community and technical college enrollments, but are less likely to transfer, interviews were conducted with a sub-group of the student population to explore their perceptions on the ways that baccalaureate programs located on community college campuses provide them access to
four-year degrees (See Appendix E). The study participants were Appalachian women who have delayed college participation and have adult responsibilities that include family responsibilities, employment, and community ties, which have resulted in them being unable or unwilling to leave their homes to transfer to traditional universities. Twenty-four female students were interviewed.

**Institutional Profiles**

Descriptive and inferential statistics provided institutional profiles of the four participating community colleges for a specific student cohort, spring/summer 2009 AA/AS graduates. Table 2.1 illustrates the profiles:

**Table 2.1**

*Institutional Profiles of the Four Appalachian Community Colleges*

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>High Impact A</th>
<th>High Impact B</th>
<th>Low Impact A</th>
<th>Low Impact B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total spring/summer 2009 AA/AS graduates</td>
<td>338</td>
<td>58</td>
<td>73</td>
<td>85</td>
<td>122</td>
</tr>
<tr>
<td>Female</td>
<td>227/67%</td>
<td>40/69%</td>
<td>40/55%</td>
<td>57/67%</td>
<td>90/74%</td>
</tr>
<tr>
<td>Male</td>
<td>111/33%</td>
<td>18/31%</td>
<td>33/45%</td>
<td>28/33%</td>
<td>32/26%</td>
</tr>
<tr>
<td>Traditional (18-24)</td>
<td>201/59%</td>
<td>25/43%</td>
<td>51/70%</td>
<td>44/52%</td>
<td>81/66%</td>
</tr>
<tr>
<td>Non-Traditional (25+)</td>
<td>137/41%</td>
<td>33/57%</td>
<td>22/30%</td>
<td>41/48%</td>
<td>41/34%</td>
</tr>
<tr>
<td>Pell-Eligible</td>
<td>329/97%</td>
<td>52/90%</td>
<td>71/97%</td>
<td>85/100%</td>
<td>121/99%</td>
</tr>
<tr>
<td>Non-Pell-Eligible</td>
<td>9/3%</td>
<td>6/10%</td>
<td>2/3%</td>
<td>0/0%</td>
<td>1/1%</td>
</tr>
<tr>
<td>Total Cumulative Hours Earned</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>86.46</td>
<td>83.41</td>
<td>81.78</td>
<td>99.34</td>
<td>81.74</td>
</tr>
<tr>
<td>Med</td>
<td>78.0</td>
<td>78.0</td>
<td>74.0</td>
<td>87.0</td>
<td>76.0</td>
</tr>
<tr>
<td>SD</td>
<td>28.11</td>
<td>26.42</td>
<td>28.16</td>
<td>32.10</td>
<td>22.98</td>
</tr>
<tr>
<td>Max</td>
<td>246</td>
<td>191</td>
<td>246</td>
<td>215</td>
<td>229</td>
</tr>
<tr>
<td>Min</td>
<td>57</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>57</td>
</tr>
<tr>
<td>Transfer Rate*</td>
<td>163/48%</td>
<td>37/64%</td>
<td>48/66%</td>
<td>33/38%</td>
<td>45/37%</td>
</tr>
<tr>
<td>Persistence after Transfer**</td>
<td>115/71%</td>
<td>30/81%</td>
<td>31/65%</td>
<td>21/63%</td>
<td>33/73%</td>
</tr>
<tr>
<td>Full-time versus Adjunct Faculty</td>
<td>95/111</td>
<td>106/95</td>
<td>109/93</td>
<td>95/70</td>
<td></td>
</tr>
<tr>
<td>Technical Certificates Female</td>
<td>TC-1140</td>
<td>218</td>
<td>127</td>
<td>439</td>
<td>356</td>
</tr>
<tr>
<td></td>
<td>AD-965</td>
<td>226</td>
<td>175</td>
<td>266</td>
<td>298</td>
</tr>
</tbody>
</table>
Findings and Results

The framework used to describe the findings and results of the study is a typology developed by one of the authors hereafter entitled the Community College Typology for Transfer Success (Decker, 2011). The typology model was developed to illustrate the interplay among multiple types of informal and formal organizational structures in the context of transfer success. The framework includes six elements for each of the participating community colleges and helps to examine the interface of informal and formal structures that plays a role in the differentiation between high impact and low impact institutions. Other findings and results of the study help to further explain these differences in transfer success among the participating institutions. Community college leaders and practitioners can utilize these findings and results to identify what types of policies, practices, and structures they might consider to enhance their institutions’ impact on transfer.

The Community College Typology for Transfer Success includes six data elements that emerged through interviews with transfer administrators, faculty, and staff at the four participating institutions. A thorough document analysis also informed the included elements. The first element reflects the organization’s network structure.

<table>
<thead>
<tr>
<th>(TC) versus Associate Degrees (AD) Awarded</th>
<th>Male</th>
<th>TC-1355</th>
<th>476</th>
<th>283</th>
<th>307</th>
<th>289</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>AD-382</td>
<td>110</td>
<td>92</td>
<td>79</td>
<td>101</td>
</tr>
<tr>
<td>Total</td>
<td>TC-2495</td>
<td>TC-694</td>
<td>TC-410</td>
<td>TC-746</td>
<td>TC-645</td>
<td>TC-336</td>
</tr>
</tbody>
</table>

*Defined as the total number/percent of 2009 spring/summer AA/AS graduates who enrolled at a four-year university in fall 2009.

**Defined as the total number/percent of students who transferred and persisted at the four-year university through fall 2010.
including internal and external ties identified as important to the transfer process. Institutions were categorized according to the degree and strength of their internal and external ties. The second element indicates the formal organizational structure of the college and is assigned according to a provost (P) versus non provost model (NP). Typically, community colleges operate within two types of systems: (a) a traditional Provost model that incorporates academic and student affairs under one leader who reports to the President, or (b) a model that separates the academic and student affairs’ functions under two leaders who each report to the president. The study included the formal organizational structure in the typology to determine if this element was important to an institution’s capability to influence transfer success.

The third element involves the level of integration of transfer services within the college. An “I” indicates that a high level of integration of transfer services, and a “D” means that the institution has a discrete set of services geared towards transfer. Elements on table 2.2 four through six deals with the number of four-year programs and institutions on campus, as well as those within driving distance of the community colleges. Table 2.2 illustrates the typology elements for each of the high-impact and low-impact community colleges included in the study.

Table 2.2
Community College Typology for Transfer Success

<table>
<thead>
<tr>
<th>Element</th>
<th>High-impact community colleges</th>
<th>Low-impact community colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

29
In the development of the typology matrix, student characteristics and other institutional factors were controlled in order to explore other explanations for the disparity of transfer success among four Appalachian community colleges. Findings support other research that suggests that no single practice guarantees institutional effectiveness; it is the combination of many factors within complex systems that promotes effectiveness (Hannon & Freeman, 1989; Ichniowski, Shaw & Prennushi, 1997). As illustrated in the typology, many informal and formal structures play a role in the differentiation between high-impact and low-impact institutions. No element can be identified as the one best structure, yet taken as a whole certain conditions seem to
distinguish the high-impact community colleges from the low-impact community colleges.

Two elements seem to distinguish the high-impact community colleges from the low-impact community colleges: the degree of external and internal ties and the level of integration of the transfer center structures. Both of the high-impact institutions are identified as having strong external and internal ties. One of the low-impact colleges operates demonstrated strong external and weak internal ties. The two high-impact community colleges were identified as having well-integrated transfer centers/services, and the two low-impact community colleges were described as having discrete transfer centers. The transfer services of the high-impact colleges were described as infused within the regular operations of admissions, advising, and graduation. The low-impact institutions described their transfer centers as discrete departments that essentially served as information repositories for students interested in transfer. The primary difference among the typology elements is related to internal ties. It appears that the existence of strong external ties is not enough to make an impact on transfer. Strong internal ties are necessary for an institution to be effective in successful transfer.

Additional findings from other components of the study support the typology elements. This study incorporated both student (Dykes, 2011; Preston, 2011) and institutional (Decker, 2011; Phillips, 2011) perspectives about the transfer process allowing for a robust description of this complex topic. The typology was informed by the institutional perspective through interviews with faculty, staff, and administration from each of the community colleges. The following description focuses on how student
and institutional perspectives might help explain the elements of the typology that differentiate high-impact and low-impact community colleges.

**The Role of the Institution**

A key theme revealed throughout the study involved institutional awareness of the multiple roles of students. Results from the mattering survey as well as findings from student interviews indicated that the institutions’ understanding of their multiple roles was an important factor to their transfer success (Dykes, 2011; Preston, 2011). The Multiple Roles Subscale on the mattering survey measures the perception that administration acknowledges competing student demands. This subscale significantly predicted the probability of persistence toward a baccalaureate degree (Dykes, 2011). This result was further supported by the interviews with students, in which they reported a variety of roles that competed for their time. Students indicated a difficulty in balancing demands as parents, students, workers, caregivers, etc (Preston, 2011). In addition to student responses, community college faculty, staff, and administration reported the importance of connecting with students on an individual level to understand their particular needs (Decker, 2011; Phillips, 2011). By gaining a comprehensive picture of the students’ lives, institutions can employ programs and services that address actual needs at times and locations to meet student demands.

These student and institutional perspectives support the typology elements involving transfer center structures, and providing access through on-campus baccalaureate programming. Students who have multiple responsibilities benefit from
integrated transfer programs and services. Many students reported that they were location-bound and could not have left the area to attend a four-year institution. In interviews with students enrolled in baccalaureate degrees on or near community college campuses, nearly all related that they would not be able to complete their degrees if the regional programs did not exist. A married student who works and has young children remarked, “I want to be a teacher. The only way that this is possible for me is to have a program here. I can’t move my family so I can earn a degree” (Preston, 2011). Flexible policies, such as late administrative office hours and alternative course scheduling, that allow students to meet other responsibilities are important in influencing persistence toward a baccalaureate degree. This may be particularly true for rural areas like the ones included in this study (Dykes, 2011).

The Role of Advising

Advising was reported as a crucial process for transfer success by both students and institutional personnel. During the interviews with community college faculty, staff, and administration, advising emerged as the prevailing practice that promoted or hindered transfer success (Decker, 2011; Phillips, 2011). A challenge identified by many of the students involved being misadvised into lower-level courses needed for their baccalaureate programs and enrollment in unnecessary classes. One student related, “I never felt like I had an advisor at the community college – I saw someone new every semester. I ended up pretty much doing my own advising since so many of my friends were misadvised.” Another common

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Institutional Perspective: “Advising is key for students to start off on the right path to transfer. If they come in the summer, they end up seeing whoever is around, and may not meet with the most appropriate person.”

--Pam, Community College Faculty Member
theme that emerged about community college advising was the tendency for advisors to enroll students in classes that they did not need for either their associate degree or transfer. Several students related that they had 75 or more hours when they transferred. One woman who entered the university with senior status related that her advisor did not explain to her that she would need more than 40 hours of upper-level courses to earn a baccalaureate degree (Preston, 2011). This might indicate a communication breakdown within and between institutions.

Although advising is a practice conducted by individuals, the organizational analysis found in this study indicates that advising should also be seen as an organizational feature of institutional success in promoting transfer. This study found a negative relationship between students who earned over 90 total cumulative hours and successful transfer and persistence (See Appendix A: Regressions 1 and 2). If a good information flow does not exist within an institution, students may not have access to accurate information about which courses to take each semester. If strong ties do not exist between two-year and four-year institutions, community college advisors might not have up-to-date information about transfer agreements, baccalaureate course requirements, and other changes to programs. The importance of advising supports the typology element of internal and external ties. The high-impact community colleges demonstrated strong internal and external connections, providing the opportunity for an effective advising network. The low-impact community colleges seemed to lack the degree of internal ties required for an adequate information flow to ensure accurate advising (Decker, 2011).
The Role of Faculty

The role of faculty also emerged as an important ingredient to transfer success. Students reported on the mattering survey that acceptance by faculty in the classroom was critical to their success. In fact, the faculty subscale of the survey significantly predicted the probability of persistence toward a baccalaureate degree. The student perception of feeling comfortable, noticed, and treated equitably in the classroom positively impacts transfer persistence. This may be particularly important among nontraditional students, who are often returning to the classroom after being out for several years (Dykes, 2011). This result further supports the notion of integrating transfer programs and services within the institution. Faculty should have a clear understanding of the transfer process and incorporate the information into their classrooms.

Roughly half of faculty at each of the institutions in this study are employed part-time (KCTCS, 2010), which may affect faculty-student interaction outside of the classroom. It may be more difficult for students to meet during scheduled office hours or to receive advising with part-time faculty. Part-time faculty may engage in less training and not be as aware of transfer-related issues as their full-time counterparts. Further, it is difficult to require part-time faculty, particularly those who teach online courses, to engage with students outside of class (Dykes, 2011).

While students found faculty to play an important role in the transfer process (Dykes, 2011), faculty were less aware of their importance in encouraging and assisting students progress through the educational pipeline (Decker, 2011; Phillips, 2011).
Community college faculty interviewed in the study reported their perceptions of a shift in institutional mission away from the transfer function. Their perceptions reflect the historic shift in the community college national and state agendas, moving from an original focus on transfer to one of workforce development. The current emphasis is on completion, including a renewed focus on transfer (Decker, 2011; Phillips, 2011). This appeared to be reflected in the study’s institutional profiles.

Table 2.3

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>High Impact A</th>
<th>High Impact B</th>
<th>Low Impact A</th>
<th>Low Impact B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total spring/summer</td>
<td>338</td>
<td>58</td>
<td>73</td>
<td>85</td>
<td>122</td>
</tr>
<tr>
<td>AA/AS graduates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer Rate</td>
<td>163/48%</td>
<td>37/64%</td>
<td>48/66%</td>
<td>33/38%</td>
<td>45/37%</td>
</tr>
<tr>
<td>Persistence after</td>
<td>115/71%</td>
<td>30/81%</td>
<td>31/65%</td>
<td>21/63%</td>
<td>33/73%</td>
</tr>
<tr>
<td>Transfer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As illustrated in Table 2.3, one of the low-impact community colleges had the highest number of AA/AS graduates in the cohort, the lowest percentage of transfers, but a fairly high rate of persistence at the four-year institution after transfer (See Appendix A: Table 2.9). This seemingly contradictory data might be explained by a combination of factors, including the shift in focus to completion with the limited opportunities for transfer available at this low-impact community college. The institution seems to perform exceedingly well with helping students earn their AA/AS degrees, yet yielded the lowest percentage of students who actually transferred. This might be linked to the typology elements of the number of baccalaureate programs available locally. Students may be encouraged to earn a degree in order to fulfill the completion agenda, yet are restricted to continuing to a four-year institution near home. Unfortunately, for many
rural areas there is limited access to these types of institutions for students who cannot move away.

**The Role of Institutional Partnerships**

Strong partnerships provide the opportunity for access to four-year programs for rural students who do not live in close proximity to university campuses. Students who were interviewed for this study reported the importance of having access to postsecondary education in their local area. Participants expressed that they have feelings of attachment to their Appalachian communities and the residents of the area and indicated their intention to remain in their home communities. These student perspectives might further explain the importance of partnerships between community colleges and four-year institutions. Many of these students would not have had the opportunity to pursue a baccalaureate degree if the community colleges did not provide access through on-campus programs (Preston, 2011). The high-impact community colleges had numerous baccalaureate programs available on campus as well as the internal and external ties required to ensure success.

Community college faculty, staff, and administration interviewed for the study reported that a high degree of coordination with on-campus and local four-year institutions resulted in a more seamless transition for students (Decker, 2011; Phillips, 2011). The typology elements that capture these key partnerships include number of four-year institutions offering on-campus programs, number of baccalaureate/graduate programs offered on-campus, and number of four-year institutions within reasonable driving distance. Three of the community colleges, including one low-impact institution offered a high number of baccalaureate programs on the community college campus.
What factors might help explain the limited number of transfers from the low-impact community college, given such a high number of available four-year programs? This institution also exhibited weak internal ties, so it is possible that even though the four-year programs were available on campus, students may not have been made aware of these opportunities. The two high-impact community colleges were described as having strong internal ties, which could indicate that not only were students more aware of the opportunities, but also that the four-year programs took on the “feel” or “culture” of the community college (Decker, 2011).

In addition to partnerships with four-year institutions, relationships with the community in general were discussed as an important underlying factor to organizational success with transfer. Community college faculty, staff, and administration who were interviewed reported some of the misperceptions of the community about the role of the community college. Community colleges were viewed as a place for students who were location-bound, underprepared for college, or otherwise deemed not suitable for a four-year institution (Decker, 2011; Phillips, 2011). Building these external relationships is crucial in helping the community develop an accurate understanding of the role of community colleges in the pathway to the baccalaureate.

**Recommendations**

This study of community college transfer within Appalachia Kentucky resulted in several recommendations to promote increased student transfer and to encourage transfer
persistence. The goal of these recommendations is to increase the educational attainment rate of the region to levels consistent with policy goals. Economists agree that the level of education of citizens is directly related to the economic level of a geographical area.

The need for an increase in the number of students who transfer to universities is particularly important in Appalachia Kentucky where severe and persistent poverty exist and a much lower rate of highly educated citizens reside (ARC, 2010). Ziliak posits that the deeply rooted poverty in Appalachia Kentucky will continue until the college completion gap between this area and the rest of the country is closed (2007). The following bulleted list includes the major recommendations informed by the study:

**Expand System-Wide Transfer Agreements**

While several system-wide transfer agreements with four-year institutions are in place, specific institutional agreements with baccalaureate-granting institutions often complicate the transfer process. Without common and consistent transfer agreements that are readily available to the public, students do not have a clear understanding of what credits will transfer, and other pertinent information about how the transfer process works. Since KCTCS uses a common transcript for all course work, the use of system-wide articulation agreements would make the transfer process clear and seamless. This system could help to prevent students from repeating courses taken at the community college, thereby accelerating time to completion.

**Increase Collaborative Agreements**

Currently, baccalaureate programs are provided by both private and public four-year institutions located on or near community college campuses. These degree programs provide access for students who cannot move away. More than 50 percent of
the community college student population is 24 years of age or older, and a significant number of younger students maintain adult responsibilities, which result in them being unable to relocate to traditional residential campuses. The Appalachian community colleges in this study that had the highest rates of transfer and baccalaureate persistence among their student population were closely connected with four-year institutions that offer multiple degrees within their communities.

The scope of the baccalaureate degrees offered to these place-bound students is limited. Four-year programs widely available within the region include education, nursing, social work, human services, and university studies. Many of the baccalaureate programs currently offered to place-bound students in the region are in disciplines that have saturated the local job markets. Limited opportunities exist for programs of study in the areas of science and technology, which typically result in higher paying employment within high-demand fields. Needs of the specific communities should be assessed in order to identify the most appropriate programs. It is imperative that educational leaders determine how to bridge the gap between increasing the number of baccalaureate degree holders in Appalachia while simultaneously meeting the needs of local labor markets through workforce development.

**Develop a Comprehensive, Student-Centered Advising Model**

Faculty, staff, and student participants in this study voiced a concern about consistency in advising, defined as the planning and scheduling of classes. It is important that students receive advising in a model that considers the individual, long-term educational goals of students. In order for students to complete their degrees in a timely manner and begin the transfer process, advisors must be well informed about the
requirements of the receiving institutions, existing articulation agreements, and the barriers commonly faced by the student population. Community colleges included in the study utilized advisors who served in staff and faculty roles (Decker, 2011; Phillips, 2011; Preston, 2011).

Typically, new students visit an “advising center” and meet with a staff advisor who helps them with their first-semester schedule. Beyond the first semester, each community college followed different policies regarding advising. One institution allowed students with a certain number of credit hours to completely self-enroll through an electronic system. Most of the institutions required students in developmental courses to visit an advisor until they successfully completed their developmental sequences. Once they have completed their developmental courses, students are assigned a faculty advisor from their program of study. Faculty, staff, and administration from the community colleges indicated that although advising was critical to the transfer process, they agreed that improvements could be made to the existing model. Up-to-date and readily accessible check sheets that clearly take a student through the pathway to a baccalaureate program would greatly enhance the advising and student self-enrollment processes (Decker, 2011; Phillips, 2011).

**Implement a Strong System of Internal and External Communications**

Community college faculty, staff, and administration interviewed for the study identified a gap in communicating information relevant to encouraging student transfer. Clear processes for sharing information within each institution must be developed. A more complicated communication gap exists between the sending and receiving transfer institutions. Strong collaborative efforts must be based in processes for inter-institutional...
communications. Shared institution responsibility for these processes should be established. Transfer and advising personnel from both the two- and four- year institutions should participate in regularly schedule forums to address articulation and other transfer policy needs (Decker, 2011).

Maintaining accurate up-to-date transfer information from receiving institutions is a challenging task. This requires a strong system of communication that is maintained over long periods of time. Establishing an appropriate model for inter- institutional communication would allow for an understanding of evolving transfer policies, gives voice to both the two- and four- year institutions, and allows for addressing the changing needs of the student population and the regional economic system (Decker, 2011).

**Advance the Mandates of House Bill 160**

House Bill 160 provides the mechanism to expand the capacity of the state’s postsecondary system to ensure seamless transfer between community colleges and four-year institutions. The bill assures that students will not be required to repeat or take additional lower-level courses to fulfill baccalaureate degree requirements in the same major. Although House Bill 160 takes the necessary first step of ensuring the seamless transfer of credit, establishing the partnerships and maintenance of transfer information will be actions required of each college with the appropriate four-year institutions. This will require strengthening external relationships and potential changes to existing practices to improve the transfer experience.

**Develop Institutional Partnerships to Meet the Needs of Location-Bound Students**

A significant number of Appalachian community college students are location-bound. The community colleges which have existing partnerships to deliver four-year
degrees within the region have a much higher rate of transfer and persistence. The number of degree programs is positively correlated with these higher rates of academic attainment. The two and four-year institutions should have a goal of establishing partnerships which are founded on strong communications, equal voice in related transfer issues, and meeting the needs of the specific regional community. The implementation of these partnerships will require strong commitment from the leadership of both sending and receiving institutions in order to promote a cultural of collaborative partnership. The expansion of concurrent enrollment agreements is an essential part of institutional collaborative. Currently, students who are enrolled concurrently receive financial aid through the baccalaureate-granting institutions. Because of differing institutional calendars, students frequently are dropped from community college classes and are required to pay large fees in order to be reinstated in their required courses. Penalties charged to the students because of institutional issues must be addressed by both the sending and receiving institutions (Preston, 2011).

**Integrate Transfer Services into the Entire Student Experience**

Transfer planning is often limited to the final semester of a students’ community college enrollment. This results in students having difficulty meeting their major requirements for transfer and accumulating excessive hours. This is costly in terms of both time and financial aid. In order to facilitate successful student transfer, it is important that their long-term educational goals be assessed earlier in their community college experience. A majority of community college students relate that they plan on earning a baccalaureate degree, but only a small percentage achieve this goal. It is essential that transfer planning begins in the initial advising process. By encouraging
students to consider their long-term educational goals early on in their college careers, advisors can assist students in planning schedules and providing transfer information. It is highly recommended that this be built into the advising model.

Students may benefit from increased contact with part-time faculty, who tend to engage with students outside of the classroom less than their full-time counterparts (Shuetz, 2002). Because roughly half of the faculty members at these institutions, in this study, are part-time, it would be beneficial to increase integration of part-time faculty at the institutions and contact with these professionals with students. It may be helpful to determine a means of paying part-time faculty for attending faculty meetings and professional development opportunities so as to stay up-to-date on college initiatives and relevant transfer issues (Dykes, 2011).

Conclusion

American community colleges play a crucial role in facilitating student transfer, which improves social and economic mobility of those with the lowest incomes. This study examined student and institutional characteristics that help to increase the rate of student transfer toward baccalaureate attainment. The setting was four institutions in Appalachia Kentucky that operate within the same community college system and policy environment, allowing researchers to compare institutional factors. A mixed-method approach was utilized: a quantitative analysis of both survey data and student outcomes and a qualitative analysis of student, faculty, and staff perspectives on the transfer function. The researchers used the Community College Typology for Transfer Success (Decker, 2011) to describe the findings and results, which help to explain differences in
transfer and persistence rates among the four institutions. Four resulting themes were found:

First, institutions need to understand the multiple and competing social and economic roles of students and to be flexible in providing transfer services that are well-integrated on the community college campus. Second, community college faculty, staff, and administration need to be knowledgeable and up-to-date regarding the transfer process and available options for students. While campuses may offer transfer centers, it is the responsibility for everyone who advises students to take an active role in ensuring that students will not be misinformed. Third, teaching faculty should make a concerted effort to make students feel accepted and comfortable in the classroom, which was found to be a significant predictor of not only transfer but persistence toward the baccalaureate. Lastly, baccalaureate degree programs should be made available on community college campuses, particularly for students who are unable to relocate or to travel long distances to a four-year institution to attend classes. Programs should be offered in disciplines that are tied directly to local labor markets. Further, the transfer function should be integrated into the entire transfer experience, with visible partnerships with four-year institutions. The state needs to implement system-wide transfer agreements under which these partnerships can flourish.

The researchers recommend that the Community College Typology for transfer Success (Decker, 2011) be applied in other institutional settings to test the recommendations discussed above. Replicating this study, it would be helpful to determine system-wide student and institutional characteristics that promote transfer and persistence toward the baccalaureate. Additionally, it would be beneficial to compare the
Typology results among urban and rural institutions and among those that are located geographically close to or away from four-year institutions. Do students in these different settings feel that different institutional policies and practices are important in helping them to transfer to a four-year institution?
Appendices

Appendix A

Regression 1: Total Cumulative Hours Regressed Against Successful Transfer

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% Lower</th>
<th>95% Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.248188</td>
<td>0.669033</td>
<td>-0.37</td>
<td>0.711</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.216216</td>
<td>0.240534</td>
<td>-0.90</td>
<td>0.369</td>
<td>0.81</td>
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</tr>
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<td>Race</td>
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<td>0.617349</td>
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<td>0.321</td>
<td>0.54</td>
<td>0.16</td>
<td>1.82</td>
</tr>
<tr>
<td>Age</td>
<td>0.099731</td>
<td>0.231846</td>
<td>0.43</td>
<td>0.667</td>
<td>1.10</td>
<td>0.70</td>
<td>1.74</td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.383949</td>
<td>0.224644</td>
<td>1.71</td>
<td>0.087</td>
<td>1.47</td>
<td>0.95</td>
<td>2.28</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.875647</td>
<td>0.266043</td>
<td>3.29</td>
<td>0.001</td>
<td>2.40</td>
<td>1.43</td>
<td>4.04</td>
</tr>
</tbody>
</table>

The regression analysis of the 338 students from the spring/summer 2009 graduates with the transfer associate degree; Associate in Arts or Associate in Science, provided evidence for one highly significant variable and one weakly significant variable associated with student transfer. Gender, race, age each were statistically insignificant variables related to transfer. Cumulative grade point average is classified as a dichotomous variable with 1 signaling grade point average greater than or equal to 3.25 upon graduation and zero for grade point average below 3.25. Cumulative grade point average was weakly significant at the 10% significance level with a p-value of 0.087. Total cumulative hours earned upon graduation was also a dichotomous variable for 1 signaling earned credit hours below 90 and zero for credit hours earned greater than or equal to 90 upon graduation. Total cumulative hours were found to be highly significant at the 1% significance level with a p-value of 0.001.
Regression 2: Total Cumulative Hours Regressed Against Successful Persistence

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio 95% CI Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.169086</td>
<td>0.673400</td>
<td>-0.25</td>
<td>0.802</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.085996</td>
<td>0.251556</td>
<td>-0.34</td>
<td>0.732</td>
<td>0.56 - 1.50</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>-1.203635</td>
<td>0.615143</td>
<td>-1.96</td>
<td>0.050</td>
<td>0.09 - 1.00</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.080316</td>
<td>0.243019</td>
<td>-0.33</td>
<td>0.741</td>
<td>0.57 - 1.49</td>
<td></td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.388863</td>
<td>0.236398</td>
<td>1.64</td>
<td>0.100</td>
<td>0.93 - 2.34</td>
<td></td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.739097</td>
<td>0.292122</td>
<td>2.53</td>
<td>0.011</td>
<td>2.09 - 3.71</td>
<td></td>
</tr>
</tbody>
</table>

The regression analysis of the 338 students from the spring/summer 2009 graduates with the transfer associate degree; Associate in Arts or Associate in Science, provided evidence for one highly significant variable and one weakly significant variable associated with student persistence. Gender, race, age each were statistically insignificant variables related to persistence. Cumulative grade point average is classified as a dichotomous variable with 1 signaling grade point average greater than or equal to 3.25 upon graduation and zero for grade point average below 3.25. Cumulative grade point average was weakly significant at the 10% significance level with a p-value of 0.10. Total cumulative hours earned upon graduation was also a dichotomous variable for 1 signaling earned credit hours below 90 and zero for credit hours earned greater than or equal to 90 upon graduation. Total cumulative hours were found to be significant at just over the 1% significance level with a p-value of 0.011.
Regression 3: Colleges 1 & 2 with College 4 Omitted

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% Lower</th>
<th>95% Upper</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Gender</td>
<td>-0.078571</td>
<td>0.251057</td>
<td>-0.31</td>
<td>0.754</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
<tr>
<td>Race</td>
<td>-0.751337</td>
<td>0.646098</td>
<td>-1.16</td>
<td>0.251</td>
<td>0.47</td>
<td>0.13</td>
<td>1.67</td>
</tr>
<tr>
<td>Age</td>
<td>0.185278</td>
<td>0.243253</td>
<td>0.76</td>
<td>0.446</td>
<td>1.20</td>
<td>0.75</td>
<td>1.94</td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.226335</td>
<td>0.235306</td>
<td>0.96</td>
<td>0.336</td>
<td>1.25</td>
<td>0.79</td>
<td>1.99</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.801860</td>
<td>0.283926</td>
<td>2.82</td>
<td>0.005</td>
<td>2.23</td>
<td>1.28</td>
<td>3.89</td>
</tr>
<tr>
<td>College 1</td>
<td>1.104820</td>
<td>0.343546</td>
<td>3.22</td>
<td>0.001</td>
<td>3.02</td>
<td>1.54</td>
<td>5.92</td>
</tr>
<tr>
<td>College 2</td>
<td>1.166580</td>
<td>0.325241</td>
<td>3.59</td>
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<td>1.70</td>
<td>6.07</td>
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<tr>
<td>College 3</td>
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<td>0.313494</td>
<td>1.12</td>
<td>0.264</td>
<td>1.42</td>
<td>0.77</td>
<td>2.62</td>
</tr>
</tbody>
</table>

These four Appalachian community colleges each have similar descriptive statistics regarding gender, race, and age. Results indicate that grade point average is weakly significant, while cumulative credit hours earned are highly significant. Higher grade point average leads to more transfer success and better persistence, while fewer than 90 credit hours earned leads to more transfer success and better persistence. In addition, by running four separate regressions omitting one of the four community colleges in each regression, results indicated that colleges 1 and 2 were high impact and colleges 3 and 4 were low impact relative to each other. Table 2.6 shows that when omitting college 4, colleges 1 and 2 are statistically similar as noted by their statistically significant p-values with college 3 having a p-value that is statistically insignificant.
Regression 4: Colleges 1 & 2 with College 3 Omitted

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% CI Lower</th>
<th>95% CI Upper</th>
</tr>
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<td>-0.42</td>
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</tr>
<tr>
<td>Gender</td>
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<td>0.251057</td>
<td>-0.31</td>
<td>0.754</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
<tr>
<td>Race</td>
<td>-0.751337</td>
<td>0.646098</td>
<td>-1.16</td>
<td>0.251</td>
<td>0.47</td>
<td>0.13</td>
<td>1.67</td>
</tr>
<tr>
<td>Age</td>
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<td>0.243253</td>
<td>0.76</td>
<td>0.464</td>
<td>1.20</td>
<td>0.75</td>
<td>1.94</td>
</tr>
<tr>
<td>Cum. GPA</td>
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<td>0.235306</td>
<td>0.96</td>
<td>0.336</td>
<td>1.25</td>
<td>0.79</td>
<td>1.99</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.801860</td>
<td>0.283926</td>
<td>2.82</td>
<td>0.005</td>
<td>2.23</td>
<td>1.28</td>
<td>3.89</td>
</tr>
<tr>
<td>College 1</td>
<td>0.754649</td>
<td>0.370587</td>
<td>2.04</td>
<td>0.042</td>
<td>2.13</td>
<td>1.03</td>
<td>4.40</td>
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<tr>
<td>College 2</td>
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<td>0.348687</td>
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<td>0.019</td>
<td>2.26</td>
<td>1.14</td>
<td>4.48</td>
</tr>
<tr>
<td>College 4</td>
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<td>0.313494</td>
<td>-1.12</td>
<td>0.264</td>
<td>0.70</td>
<td>0.38</td>
<td>1.30</td>
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</tbody>
</table>

These four Appalachian community colleges each have similar descriptive statistics regarding gender, race, and age. Results indicate that grade point average is weakly significant, while cumulative credit hours earned are highly significant. Higher grade point average leads to more transfer success and better persistence, while fewer than 90 credit hours earned leads to more transfer success and better persistence. In addition, by running four separate regressions omitting one of the four community colleges in each regression, results indicated that colleges 1 and 2 were high impact and colleges 3 and 4 were low impact relative to each other. Table 2.7 shows that when omitting college 3, colleges 1 and 2 are statistically similar as noted by their statistically significant p-values with college 4 having a p-value that is statistically insignificant.
Regression 5: Colleges 3 & 4 with College 2 Omitted

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% Lower</th>
<th>95% Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.517746</td>
<td>0.741134</td>
<td>0.70</td>
<td>0.485</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.078571</td>
<td>0.251057</td>
<td>-0.31</td>
<td>0.754</td>
<td>0.92</td>
<td>0.57</td>
<td>1.52</td>
</tr>
<tr>
<td>Race</td>
<td>-0.751337</td>
<td>0.646098</td>
<td>-1.16</td>
<td>0.245</td>
<td>0.47</td>
<td>0.13</td>
<td>1.67</td>
</tr>
<tr>
<td>Age</td>
<td>0.185278</td>
<td>0.243253</td>
<td>0.76</td>
<td>0.446</td>
<td>1.20</td>
<td>0.75</td>
<td>1.94</td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.226335</td>
<td>0.235306</td>
<td>0.96</td>
<td>0.336</td>
<td>1.25</td>
<td>0.79</td>
<td>1.99</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.801860</td>
<td>0.283926</td>
<td>2.82</td>
<td>0.005</td>
<td>2.23</td>
<td>1.28</td>
<td>3.89</td>
</tr>
<tr>
<td>College 1</td>
<td>-0.061757</td>
<td>0.382342</td>
<td>-0.16</td>
<td>0.872</td>
<td>0.94</td>
<td>0.44</td>
<td>1.99</td>
</tr>
<tr>
<td>College 3</td>
<td>-0.816406</td>
<td>0.348687</td>
<td>-2.34</td>
<td>0.019</td>
<td>0.44</td>
<td>0.22</td>
<td>0.88</td>
</tr>
<tr>
<td>College 4</td>
<td>-1.166580</td>
<td>0.325241</td>
<td>-3.59</td>
<td>0.000</td>
<td>0.31</td>
<td>0.16</td>
<td>0.59</td>
</tr>
</tbody>
</table>

These four Appalachian community colleges each have similar descriptive statistics regarding gender, race, and age. Results indicate that grade point average is weakly significant, while cumulative credit hours earned are highly significant. Higher grade point average leads to more transfer success and better persistence, while fewer than 90 credit hours earned leads to more transfer success and better persistence. In addition, by running four separate regressions omitting one of the four community colleges in each regression, results indicated that colleges 1 and 2 were high impact and colleges 3 and 4 were low impact relative to each other. Table 2.8 shows that when omitting college 2, colleges 3 and 4 are statistically similar as noted by their statistically significant p-values with college 1 having a p-value that is statistically insignificant.
### Regression 6: Colleges 3 & 4 with College 1 Omitted

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% CI Lower</th>
<th>95% CI Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.455989</td>
<td>0.733641</td>
<td>0.62</td>
<td>0.534</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.078571</td>
<td>0.251057</td>
<td>-0.31</td>
<td>0.754</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
<tr>
<td>Race</td>
<td>-0.751337</td>
<td>0.646098</td>
<td>-1.16</td>
<td>0.245</td>
<td>0.47</td>
<td>0.13</td>
<td>1.67</td>
</tr>
<tr>
<td>Age</td>
<td>0.185278</td>
<td>0.243253</td>
<td>0.76</td>
<td>0.446</td>
<td>1.20</td>
<td>0.75</td>
<td>1.94</td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.226335</td>
<td>0.235306</td>
<td>0.96</td>
<td>0.336</td>
<td>1.25</td>
<td>0.79</td>
<td>1.99</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.801860</td>
<td>0.283926</td>
<td>2.82</td>
<td>0.005</td>
<td>2.23</td>
<td>1.28</td>
<td>3.89</td>
</tr>
<tr>
<td>College 2</td>
<td>0.061757</td>
<td>0.382342</td>
<td>0.16</td>
<td>0.872</td>
<td>1.06</td>
<td>0.50</td>
<td>2.25</td>
</tr>
<tr>
<td>College 3</td>
<td>-0.754649</td>
<td>0.370587</td>
<td>-2.04</td>
<td>0.042</td>
<td>0.47</td>
<td>0.23</td>
<td>0.97</td>
</tr>
<tr>
<td>College 4</td>
<td>-1.104820</td>
<td>0.343546</td>
<td>-3.22</td>
<td>0.001</td>
<td>0.33</td>
<td>0.17</td>
<td>0.65</td>
</tr>
</tbody>
</table>

These four Appalachian community colleges each have similar descriptive statistics regarding gender, race, and age. Results indicate that grade point average is weakly significant, while cumulative credit hours earned are highly significant. Higher grade point average leads to more transfer success and better persistence, while fewer than 90 credit hours earned leads to more transfer success and better persistence. In addition, by running four separate regressions omitting one of the four community colleges in each regression, results indicated that colleges 1 and 2 were high impact and colleges 3 and 4 were low impact relative to each other. Table 2.9 shows that when omitting college 1, colleges 3 and 4 are statistically similar as noted by their statistically significant p-values with college 2 having a p-value that is statistically insignificant.
MSQCS Research Questions and Data Analysis

Mattering Perception among the Community Colleges

Research Question #1 stated: Was mattering perception statistically significant among the three community colleges? An ANOVA found that there were no significant differences between the three community colleges on any subscale. The first table shows the mean scores on the five MSQCS subscales among the two-year institutions. The second table shows the ANOVA Table for MSQCS means among the two-year institutions.

MSQCS Subscale Means by Institution

<table>
<thead>
<tr>
<th>MSQCS Subscale</th>
<th>High Impact A</th>
<th>Low Impact A</th>
<th>Low Impact B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration Subscale</td>
<td>Mean 38.84</td>
<td>42.04</td>
<td>40.89</td>
</tr>
<tr>
<td></td>
<td>SD 7.669</td>
<td>6.811</td>
<td>4.719</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 1.759</td>
<td>1.390</td>
<td>.776</td>
</tr>
<tr>
<td></td>
<td>Variance 58.807</td>
<td>46.389</td>
<td>22.266</td>
</tr>
<tr>
<td>Advising Subscale</td>
<td>Mean 31.32</td>
<td>33.29</td>
<td>32.46</td>
</tr>
<tr>
<td></td>
<td>SD 5.803</td>
<td>4.592</td>
<td>3.783</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 1.331</td>
<td>.937</td>
<td>.622</td>
</tr>
<tr>
<td></td>
<td>Variance 33.673</td>
<td>21.085</td>
<td>14.311</td>
</tr>
<tr>
<td>Peers Subscale</td>
<td>Mean 43.53</td>
<td>45.58</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>SD 6.703</td>
<td>7.027</td>
<td>4.146</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 1.538</td>
<td>1.434</td>
<td>.726</td>
</tr>
<tr>
<td></td>
<td>Variance 44.930</td>
<td>49.384</td>
<td>19.500</td>
</tr>
<tr>
<td>Multiple Roles Subscale</td>
<td>Mean 26.63</td>
<td>27.17</td>
<td>26.97</td>
</tr>
<tr>
<td></td>
<td>SD 5.166</td>
<td>4.517</td>
<td>3.296</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 1.185</td>
<td>.922</td>
<td>.542</td>
</tr>
<tr>
<td></td>
<td>Variance 26.690</td>
<td>20.406</td>
<td>10.860</td>
</tr>
<tr>
<td>Faculty Subscale</td>
<td>Mean 30.74</td>
<td>32.96</td>
<td>32.11</td>
</tr>
<tr>
<td></td>
<td>SD 4.039</td>
<td>4.930</td>
<td>3.373</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 0.927</td>
<td>1.006</td>
<td>.555</td>
</tr>
<tr>
<td></td>
<td>Variance 16.316</td>
<td>24.303</td>
<td>11.377</td>
</tr>
</tbody>
</table>
**ANOVA Table for MSQCS Subscale Means among Community Colleges**

<table>
<thead>
<tr>
<th>MSQCS Subscale</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administration Subscale</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>109.948</td>
<td>2</td>
<td>54.974</td>
<td>1.446</td>
<td>.242</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2927.052</td>
<td>77</td>
<td>38.014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3037.000</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Advising Subscale</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>41.435</td>
<td>2</td>
<td>20.717</td>
<td>.993</td>
<td>.375</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1606.253</td>
<td>77</td>
<td>20.860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1647.687</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peers Subscale</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>46.980</td>
<td>2</td>
<td>23.490</td>
<td>.683</td>
<td>.508</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2646.570</td>
<td>77</td>
<td>34.371</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2693.550</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Multiple Roles Subscale</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>3.073</td>
<td>2</td>
<td>1.563</td>
<td>.088</td>
<td>.916</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1340.727</td>
<td>77</td>
<td>17.412</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1343.800</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Faculty Subscale</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups (Combined)</td>
<td>52.677</td>
<td>2</td>
<td>26.339</td>
<td>1.607</td>
<td>.207</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1262.210</td>
<td>77</td>
<td>16.392</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1314.887</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Predictors of Transfer Persistence

Research question #2 stated: Does mattering perception influence transfer persistence when student characteristics of gender, marital status, enrollment status, work status, age, number of dependents, developmental course completion, first generation status, low-income status, extracurricular participation, and Student Support Services (TRIO) participation status are controlled? A logistic multiple regression was utilized using the above variables as predictors and transfer persistence as the criterion at levels of significance of .01, .05, and .10. The significant predictors, listed in order from most to least significant, are: (1) MSQCS Faculty Subscale, (2) MSQCS Multiple Roles Subscale, and (3) first-generation status (table below).
Predictors of Transfer Persistence

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% CI Lower</th>
<th>95% CI Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-5.81816</td>
<td>3.21831</td>
<td>-1.81</td>
<td>0.071</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration Subscale</td>
<td>0.0019064</td>
<td>0.115783</td>
<td>0.02</td>
<td>0.987</td>
<td>1.00</td>
<td>0.80</td>
<td>1.26</td>
</tr>
<tr>
<td>Advising Subscale</td>
<td>0.104785</td>
<td>0.14352</td>
<td>0.74</td>
<td>0.462</td>
<td>1.11</td>
<td>0.84</td>
<td>1.47</td>
</tr>
<tr>
<td>Faculty Subscale</td>
<td>0.573535</td>
<td>0.196747</td>
<td>2.92</td>
<td>0.004</td>
<td>1.77</td>
<td>1.21</td>
<td>2.61</td>
</tr>
<tr>
<td>Multiple Roles Subscale</td>
<td>0.488252</td>
<td>0.186870</td>
<td>2.61</td>
<td>0.009</td>
<td>1.63</td>
<td>1.13</td>
<td>2.35</td>
</tr>
<tr>
<td>Age</td>
<td>0.250330</td>
<td>0.0340117</td>
<td>0.74</td>
<td>0.462</td>
<td>1.03</td>
<td>0.96</td>
<td>1.10</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.330248</td>
<td>0.671263</td>
<td>-0.49</td>
<td>0.623</td>
<td>0.72</td>
<td>0.19</td>
<td>2.68</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.0909570</td>
<td>0.304545</td>
<td>-0.30</td>
<td>0.765</td>
<td>0.91</td>
<td>0.50</td>
<td>1.66</td>
</tr>
<tr>
<td>Work Hours</td>
<td>0.204426</td>
<td>0.207095</td>
<td>0.99</td>
<td>0.324</td>
<td>1.23</td>
<td>0.82</td>
<td>1.84</td>
</tr>
<tr>
<td>Dependents</td>
<td>0.393426</td>
<td>0.307312</td>
<td>1.28</td>
<td>0.200</td>
<td>1.48</td>
<td>0.81</td>
<td>2.71</td>
</tr>
<tr>
<td>First-Generation</td>
<td>2.38254</td>
<td>0.945660</td>
<td>2.52</td>
<td>0.012</td>
<td>10.83</td>
<td>1.70</td>
<td>69.13</td>
</tr>
<tr>
<td>Low-Income</td>
<td>0.0428515</td>
<td>0.612127</td>
<td>0.07</td>
<td>0.944</td>
<td>1.04</td>
<td>0.31</td>
<td>3.46</td>
</tr>
<tr>
<td>Extracurricular Activities</td>
<td>0.580629</td>
<td>0.617049</td>
<td>0.94</td>
<td>0.347</td>
<td>1.79</td>
<td>0.53</td>
<td>5.99</td>
</tr>
<tr>
<td>SSS Participation Status</td>
<td>-0.132356</td>
<td>0.795991</td>
<td>-0.17</td>
<td>0.868</td>
<td>0.88</td>
<td>0.18</td>
<td>4.17</td>
</tr>
</tbody>
</table>

The Faculty and Multiple Roles Subscale predictors were found to be significant at the 1% level, while the first-generation status was significant at approximately the 1% level. All other variables were found to be not significant. Coefficients are positive on Faculty and Multiple Roles Subscale predictors, meaning that higher scores result in increased persistence. The Coefficient for first-generation status is positive, meaning that first-generation students are most likely to persist after transfer. Further, the odds ratio for this variable illustrates that first-generation students are 10 times more likely to persist than continuing-education students.

Several statistics were utilized to test for “goodness of fit” and significance of the regression model.
**Goodness-of-Fit Tests**

<table>
<thead>
<tr>
<th>Method</th>
<th>Chi-Square</th>
<th>DF</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>77.1847</td>
<td>64</td>
<td>0.125</td>
</tr>
<tr>
<td>Deviance</td>
<td>85.6548</td>
<td>64</td>
<td>0.037</td>
</tr>
<tr>
<td>Hosmer-Lemeshow</td>
<td>4.2547</td>
<td>8</td>
<td>0.833</td>
</tr>
</tbody>
</table>

According to the Pearson goodness-of-fit test, the regression model is a good fit for this research question. According to the Deviance goodness-of-fit, which shows a model being a good fit only above 1%, results are less meaningful due to significance levels at 1%.
Appendix B

Mattering Scales Questionnaire for College Students (MSQCS) - Revised
Includes Demographic Survey and Cover Letter
How did [institution] treat you?
Take 15 minutes and tell us.

One of the goals of [institution] is to operate a student-centered campus. Working with [institution], I am trying to determine how the college treated you while you were a student.

Your participation is voluntary and confidential. You have been assigned a code number that will be used to identify your responses. All information will be recorded anonymously, and the results will be reported as a group. No responses will be reported individually. Only I, as the researcher, will know your name, but I will not divulge it or identify your answers to anyone. All information will be held in the strictest confidence. I encourage you to complete the questionnaire and return it by [date].

Alternatively, if you would rather complete the survey online, please go to [website address] by [date] and enter code # _______________.

INSTRUCTIONS FOR RETURNING THE QUESTIONNAIRE
- Check to make sure you have answered all questions.
- Check to make sure your answers are legible.
- To mail, insert into the self-addressed, stamped envelope provided. No postage is required. Drop the envelope in any post office mailbox.

Thank you for your participation!!
# Mattering Scales Questionnaire for College Students

Please circle the response that best described your feelings while you were a student at [institution]. Please select a response for each item.

<table>
<thead>
<tr>
<th>SD = STRONGLY DISAGREE</th>
<th>D = DISAGREE</th>
<th>N = NEITHER AGREE OR DISAGREE</th>
<th>A = AGREE</th>
<th>SA = STRONGLY AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> The administration seemed to consider student priorities as important.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>2</strong> My advisor didn’t seem to remember things we discussed before.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>3</strong> I had a hard time finishing my degree because of time limits on completing course requirements.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>4</strong> I got support from my classmates when I needed it.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>5</strong> The university's policy of transfer credits penalized students.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>6</strong> My questions seemed to put faculty members on the defensive.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>7</strong> The faculty and administrators were sensitive to my other responsibilities.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>8</strong> I sometimes felt alone and isolated at the college.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>9</strong> The administrative rules and regulations were clear to me.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>10</strong> My professors interpreted assertiveness as a challenge to their authority.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>11</strong> The administration set things up to be easy for them, not the students.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>12</strong> It was hard for me to adjust to the school environment.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>13</strong> If my advisor didn't know the answer to my questions, he or she would seek out the answers.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>14</strong> The classroom atmosphere encouraged me to speak out in class.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>15</strong> I felt my classmates reacted positively to my experience and knowledge.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>16</strong> My professors seemed to recognize other students but not me.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>17</strong> I didn’t have time to complete the administrative tasks the college required.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>18</strong> There was always someone on campus that could help me when I had a question or problem.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>19</strong> I felt like I fit in my classes.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>20</strong> The administrative offices were not open at times when I needed them.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td><strong>21</strong> The administration made efforts to accommodate students.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>

Please continue to the next page.
I had a good relationship with my classmates........................................SD D N A SA
Sometimes I felt out of place in the classroom........................................SD D N A SA
The college did not commit enough resources to off-campus courses........SD D N A SA
There was always an advisor available to talk with me if I need to ask a question.................................................................SD D N A SA
My classmates would help me catch up to the new technologies if I needed it ............................................................................SD D N A SA
My experience-based comments were accepted by my professors...........SD D N A SA
It took too long to register or correct registration problems........................SD D N A SA
Administrative staff was helpful in answering my questions..................SD D N A SA
Fellow students didn’t seem to listen to me when I shared my life experiences ...........................................................................SD D N A SA
Unless I had another student like me in class, no one really understood how hard it was to be there ..................................................SD D N A SA
The college offered alternatives to the traditional semester-length courses (example: weekend courses)....................................................SD D N A SA
I had adequate opportunities to get to know fellow students..................SD D N A SA
Campus rules and regulations seemed to have been made for someone other than me.....................................................................SD D N A SA
My age sometimes got in the way of my interactions with other students...SD D N A SA
Some of the jokes my professors told made me feel uncomfortable........SD D N A SA
Classes were offered at times that were good for me..............................SD D N A SA
I felt welcome on campus.....................................................................SD D N A SA
The classroom desks were uncomfortable.............................................SD D N A SA
I felt my activity fees were spent in a way that was meaningful to me......SD D N A SA
My advisor had office hours at times that I was on campus.....................SD D N A SA
Departmental rules sometimes made my goals difficult or impossible.....SD D N A SA
The school newspaper didn’t discuss student issues that were relevant to me..................................................................................SD D N A SA
My professors sometimes ignored my comments or questions...............SD D N A SA
I sometimes felt my professors wanted me to hurry up and finish speaking.......SD D N A SA

Please continue to the next page.

1. Age as of October 1, 2010? ______ years old

2. Gender: (Check one) □ Male □ Female

3. Marital status: (Check one) □ single (never been married) □ unmarried and living with partner / significant other □ married □ divorced □ widowed □ separated

4. Enrollment status the majority of the time you attended [institution]: (Check one)
   □ Full-time student (enrolled in at least 12 credit hours this semester)
   □ Part-time student (enrolled in less than 12 credit hours this semester)

5. Did you work while attending [institution]? (Check one)
   □ No (Go to #7)
   □ Sometimes (Go to #6)
   □ Yes (Go to #6)

6. If Yes or Sometimes, what is the average number of hours you worked per week the majority of the time you attended [institution]? (Check one)
   □ 0-10 hours
   □ 11-20 hours
   □ 21-30 hours
   □ 31-40 hours
   □ Over 40 hours

7. Did you have dependents living with you while attending [institution]? (Check one)
   (Examples: spouse, children, grandchildren, parents, or others that you were financially responsible for.)
   □ No (Go to #9)
   □ Yes (Go to #8)

8. If yes, how many dependents did you have while you were a student at [institution]?
   _________ Number of Dependents

9. Did you take developmental courses while you were a student at [institution]? (Check one)
   □ No (Go to #11 on next page)
   □ Yes (Go to #10)

10. If Yes, how many developmental courses did you take while at [institution]? Check one
    □ 1
    □ 2
    □ 3 or more

Please continue to the next page.
11. Were you a participant in the federal TRIO Student Support Services (SSS) program [other name] while a student at [institution]? (Check one)
   □ No     (Go to #17 on the next page)
   □ Yes    (Go to #12)

12. If Yes, please mark which of the following services you utilized from SSS [other name] staff. (Check all that apply.)
   □ Help registering for classes
   □ Keeping track of grades through mid-term progress/grade reports filled out by instructors and turned in to SSS [other name] staff
   □ Help talking to instructors about problems I had in class
   □ Tutoring by people with a 4-year college degree
   □ Tutoring by other students working in the tutoring lab or academic support center
   □ Help figuring out what career I would like best
   □ Help with problems I had in my personal life
   □ Trips with SSS [other name] staff and other students
   □ Help with the transfer process (filling out forms, transferring financial aid to the new school, knowing what classes would transfer, sending transcripts, etc.)
   □ Supplemental Grant Assistance (Money paid to you)
   □ College / campus visits to 4-year schools
   □ Workshops, either online or in person
   □ Help filling out financial aid forms
   □ Help for students with disabilities

13. Of the services you stated you utilized, please mark which helped you most. (Check all that apply.)
   □ Help registering for classes
   □ Keeping track of grades through mid-term progress/grade reports filled out by instructors and turned in to SSS [other name] staff
   □ Help talking to instructors about problems I had in class
   □ Tutoring by people with a 4-year college degree
   □ Tutoring by other students working in the tutoring lab or academic support center
   □ Help figuring out what career I would like best
   □ Help with problems I had in my personal life
   □ Trips with SSS [other name] staff and other students
   □ Help with the transfer process (filling out forms, transferring financial aid to the new school, knowing what classes would transfer, sending transcripts, etc.)
   □ Supplemental Grant Assistance (Money paid to you)
   □ College / campus visits to 4-year schools
   □ Workshops, either online or in person
   □ Help filling out financial aid forms
   □ Help for students with disabilities

Please continue to the next page.
14. How often did you use or participate in SSS [other name] activities? (Check one)
   □ 0-3 times / semester
   □ 4-6 times / semester
   □ 7 or more times / semester

15. How often did you visit SSS [other name] staff in person? (Check one)
   □ 0-3 times / semester
   □ 4-6 times / semester
   □ 7 or more times / semester

16. How often did you communicate with SSS [other name] staff over the phone or by email? (Check one)
   □ 0-3 times / semester
   □ 4-6 times / semester
   □ 7 or more times / semester

17. Did either one of your parents/guardians have a bachelor's degree at the time you attended [institution]? (Check one)
   □ No
   □ Yes

18. Did you receive a Pell Grant while you attended [institution]? (Check one)
   □ No
   □ Yes

19. Were you involved in extracurricular activities or clubs while you attended [institution]? (Example: student government, college newspaper, Phi Theta Kappa, Phi Beta Lambda, etc.) (Check one)
   □ No
   □ Yes

20. Are you currently enrolled in a 4-year college working toward a bachelor's degree?
   □ No (Go to #23)
   □ Yes (Go to #21)

21. If yes, what school do you attend?
   College or University: ____________________________

22. If yes, what is your expected graduation date?
   Expected Graduation Date: _______________________

23. Please list an email address where I can contact you if I can't read one of your answers:
   Email Address: __________________________________

You have reached the end of the survey. Thank you!
Appendix C
MSQCS Subscales

Results are meant to be utilized as a campus ecology measure to uncover environmental trends rather than to interpret individual responses. Further, scale intercorrelation analysis revealed that a total instrument score is not interpretable and that the five scales should be individually reported (Kettle, 2001; Schlossberg, et al., 1990). Survey items are scored on a 5-point Likert scale, with 24 items with reverse values. The questions for each subscale are listed in the table below, with reversed values identified by an asterisk.

Questions Used to Measure MSQCS Subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>1, 5*, 7, 11*, 21, 24*, 28*, 32, 34*, 40, 43*</td>
</tr>
<tr>
<td>Advising</td>
<td>2*, 9, 13, 18, 25, 29, 37, 41</td>
</tr>
<tr>
<td>Peers</td>
<td>4, 8*, 14, 15, 19, 22, 26, 30*, 33, 35*, 38</td>
</tr>
<tr>
<td>Multiple Roles</td>
<td>3*, 12*, 17*, 20*, 31*, 39*, 42*</td>
</tr>
<tr>
<td>Faculty</td>
<td>6*, 10*, 16*, 23*, 27, 36*, 44*, 45*</td>
</tr>
</tbody>
</table>

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## Appendix D
### Participant Demographics

**Participant Demographics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th>ACTC</th>
<th>HCTC</th>
<th>SKCTC</th>
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<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
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<tr>
<td>Traditional</td>
<td>45%</td>
<td>32%</td>
<td>42%</td>
<td>54%</td>
</tr>
<tr>
<td>Nontraditional (25 &amp; older)</td>
<td>55%</td>
<td>68%</td>
<td>58%</td>
<td>46%</td>
</tr>
<tr>
<td>Mean</td>
<td>30.5</td>
<td>34.4</td>
<td>31.6</td>
<td>27.9</td>
</tr>
<tr>
<td>SD</td>
<td>11.43</td>
<td>12.44</td>
<td>11.19</td>
<td>10.64</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>30%</td>
<td>38%</td>
<td>37%</td>
<td>22%</td>
</tr>
<tr>
<td>Female</td>
<td>70%</td>
<td>63%</td>
<td>63%</td>
<td>78%</td>
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<td><strong>Marital Status</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Single</td>
<td>41.3%</td>
<td>15.8%</td>
<td>41.7%</td>
<td>45.9%</td>
</tr>
<tr>
<td>Unmarried / Living with Partner</td>
<td>3.8%</td>
<td>5.3%</td>
<td>4.2%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Married</td>
<td>45%</td>
<td>57.9%</td>
<td>45.8%</td>
<td>37.8%</td>
</tr>
<tr>
<td>Divorced</td>
<td>11.3%</td>
<td>21.1%</td>
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<td>8.1%</td>
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<td>Widowed</td>
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<td>0%</td>
<td>5.4%</td>
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<td>13.5%</td>
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<td>87.5%</td>
<td>86.5%</td>
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<td>Didn’t Work</td>
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<td>26.3%</td>
<td>20.8%</td>
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</tr>
<tr>
<td>1-10hrs/wk</td>
<td>4.9%</td>
<td>0%</td>
<td>0%</td>
<td>8.1%</td>
</tr>
<tr>
<td>11-20hrs/wk</td>
<td>14.8%</td>
<td>5.3%</td>
<td>12.5%</td>
<td>13.5%</td>
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<td>21-30hrs/wk</td>
<td>27.9%</td>
<td>26.3%</td>
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<td>31-40hrs/wk</td>
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<td>26.3%</td>
<td>41.7%</td>
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<td>41+hrs/wk</td>
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<td><strong>Dependants</strong></td>
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<td>1 Dependent</td>
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<td>2 Dependents</td>
<td>16.3%</td>
<td>36.8%</td>
<td>12.5%</td>
<td>8.1%</td>
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<tr>
<td>3 Dependents</td>
<td>2.5%</td>
<td>5.3%</td>
<td>0%</td>
<td>2.7%</td>
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<td>50%</td>
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<td>29.2%</td>
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<td>3 or More Developmental Courses</td>
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<td>25%</td>
<td>8.1%</td>
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<td><strong>SSS Participation Status</strong></td>
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<td>SSS Participant</td>
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<td>21%</td>
<td>12.5%</td>
<td>24.3%</td>
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<td>SSS Non-Participant</td>
<td>80%</td>
<td>79%</td>
<td>87.5%</td>
<td>75.7%</td>
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<tr>
<td><strong>First Generation Student</strong></td>
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<td></td>
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<td></td>
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<td>1st Generation</td>
<td>79%</td>
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<td>----------------------------</td>
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<td>0%</td>
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<td></td>
<td>Weber State University</td>
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<td>0%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>
Appendix E

INDIVIDUAL STUDENT INTERVIEW GUIDE

Meeting Time ________________________________

Meeting Place ________________________________

Participant Pseudonym ________________________________

Interview questions and prompts:

Tell me about your life in Appalachia Kentucky.

Tell me about where you live.

Tell me about your roles in your family and community.

What kind of educational experiences have you had in your life?

How did you decide which four-year program in which to enroll?

What are the differences in your community college experiences and your university experiences?

Tell me in what ways your educational experiences have affected your roles in your family and community.
References


Chapter 3: 
Institutional Perceptions of Community College Transfer Success

Introduction

This paper presents a research study focusing on faculty, staff, and administrators’ perceptions of institutional transfer success at four Appalachian community colleges. Institutional cooling out and heating up are core concepts that form the basis for the study along with Weick’s (2005) sense-making. Weick’s sense-making is a process of constructing meaning from individuals’ perceptions and the following practices implemented. Clark (1960) introduced cooling out as a way of describing community college institutional policies and practices that divert students (Leigh & Gill, 2003) from transferring to a four-year institution and matriculating toward the baccalaureate, lowering institutional transfer success. Grubb (2006) argued for institutional heating or warming up, as language, showing community colleges promote transfer success through positive transfer practices.

Heating or warming up depicts community college institutional policies and practices that fosters student transfer and leads to baccalaureate attainment. These contrasting views show that institutional policies and practices do matter to community college student transfer success. The research rationale is to understand the transfer perceptions of those faculty, staff, and administrators dealing directly with student transfer through ethnographic interviews within the context of the evolving mission of the community college. If community colleges in Appalachia cope well with changing transfer policy environment regarding student transfer and adapt a positive transfer culture (Serban et al., 2008) they will do a better job at improving student transfer success.
Community College Mission and Policy Background

Mission conflict has pervaded the two-year college since its origin in 1901. Joliet College formed as the first American junior college as an extension of Joliet High School in Illinois guided by William Rainey Harper, the President of the University of Chicago. The purpose of this “new” junior college was to serve the needs of community economic development by training students for immediate entry into low-skilled jobs, thereby saving the limited amount of the university’s resources for only the top students (Brint & Karabel, 1989). Harper openly hoped many students would give up college after their sophomore year at the junior college (Zwerling, 1976). However, the public was largely sold the precept that the mission of junior colleges was to democratize and provide equity to underserved students by offering a pathway to the university. This conflict in the mission of the junior college from its very roots reflects an historical struggle to define the purpose and boundaries of the role of these critical institutions.

The community college mission since its founding has struggled with competing missions among a variety of stakeholders. The public perceived transfer as the original mission of the community college (Townsend & Wilson, 2006). Koos (1924) found that the early community college offered about three-fourths of its course in transfer or liberal arts (Cohen & Brawer, 2008). However, by the early 1990s Osterman and Batt (1993) found that three-fourths of community college students reported study in a vocational area and three-fourths of all associates degrees awarded were vocational. The shift in mission of community colleges to a more technical or vocational emphasis was driven by economic demands, technology and globalization. This change in mission and direction
of community colleges was fostered by government policymakers, student demands, and business interests (Dougherty, 2001).

The mission conflict experienced at the national level was mirrored in many states. Kentucky’s system of higher education changed dramatically with the creation of the modern community college in the early 1960s. Access to higher education and the realization that future economic changes would demand a more educated and skilled workforce brought about the development of the community college system in Kentucky. Given the historic record of Kentucky’s educational attainment near the bottom of the nation in high school and college graduation rates, community college access and the potential of transfer to a four-year institution gave promise to Kentucky’s educational future. In 1962, the Kentucky legislature authorized the creation of the Kentucky community college system under the University of Kentucky (UK). In 1964, the UK board of trustees initiated the community college system, as a part of the UK, the primary land-grant research university in the Commonwealth. The General Assembly’s specific charge for community colleges was to offer career-oriented programs that prepared students for immediate employment upon graduation and to offer the first two years of a baccalaureate degree (Kleber, 1992).

As of 1997, fourteen community colleges were under the direction of the UK with approximately 50,000 students. These community colleges focused upon transfer education, career and technical programs, and continuing education (Kleber, 1992). The chief administrator over Kentucky’s community colleges was the community college chancellor who reported directly to the president of the UK and community college presidents reported directly to the chancellor. Coursework taken under the UK system
was fully transferrable to a four-year institution fostering transfer as a key mission for community colleges (Kleber, 1992). Community colleges also had the charge of vocational and technical education. Community colleges under the governance of the Commonwealth’s primary land-grant research university seemed contradictory in mission purpose.

Separate from the community college system, the state of Kentucky through the Department of Education had established fifteen vocational regions with seventeen postsecondary, state-operated vocational technical colleges to promote workforce development and technical training by the mid-1990s (Kleber, 1992). The Vocational Education Act of 1963 and a the Carl D. Perkins Act of 1984 helped Kentucky fund new programs and state-operated vocational schools and fostered the importance of skill-oriented career training (Kleber, 1992). Community colleges had agreements with state vocational technical schools that allowed transfer of credits to the community college toward an associate degree in vocational and technical programs (Kleber, 1992). These dual entities of community colleges under the guise of UK and technical schools under state management were redundant in many courses and programs and technical missions.

In 1997, the Kentucky General Assembly passed the Postsecondary Improvement Act of 1997 or House Bill 1 that merged the UK community colleges with the Kentucky Department of Education’s technical schools into one combined Kentucky Community and Technical College System. KCTCS has focused upon continuing transfer education, but increased efforts to build a solidified and cohesive framework for technical, vocational, and workforce education (Kentucky House Bill 1, 1997; KCTCS Catalog 2010). The Kentucky Council on Postsecondary Education (CPE) currently oversees and
coordinates Kentucky’s educational system as directed by the Kentucky Postsecondary Education Improvement Act of 1997. In 2004, the General Assembly added Lexington Community College to KCTCS, formerly still governed by the University of Kentucky. Since the addition, it has changed its name to Bluegrass Community and Technical College. Today KCTCS has 16 community and technical college districts and 68 campuses located throughout the Commonwealth with spring 2011 enrollment over 100,000 students. The primary directive from House Bill 1 was to increase the educational level of Kentuckians. This includes increasing the number of Kentuckians with associate degrees and the number of baccalaureate degrees (Kentucky House Bill 1, 1997).

CPE has set an aggressive goal of doubling the number of baccalaureate degree holders statewide by 2020. The purpose of this initiative is to assist in realizing a Kentucky goal of raising the standard of living and quality of life to the national average by 2020. According to CPE (2007) and the Appalachian Regional Commission (ARC, 2010), the fastest way to increase per capita income is to raise the percentage of Kentuckians with a four-year degree. Baccalaureate-degree holders are more engaged and more financially independent citizens than those who have not earned such a degree (ARC, 2010). States with higher numbers of baccalaureate-degree holders generally have a higher quality of life and stronger, more diverse economies (CPE, 2007). Through this double the numbers initiative, CPE has sought to place a new focus on the community college mission toward transfer in order to meet this ambitious goal of nearly 800,000 baccalaureate holders by 2020. The CPE’s transfer committee oversees the current
general education, associate in arts and science and applied associate in science transfer policies and deals with current transfer issues as they surface.

During the 2010 Kentucky legislative session, policymakers in Frankfort passed House Bill 160, or the transfer bill, to ease student transition from community college toward the baccalaureate. The Governor of Kentucky, Steve Beshear, signed the bill to become law in the spring of 2010. House Bill 160 establishes the following outcomes. Beginning in the 2012-2013 academic year, associate degree programs are limited to 60 credit hours and baccalaureate degree programs to 120 credit hours for most programs. KCTCS and public universities will implement a statewide agreement for alignment of lower-level Associate in Arts and Associate in Science coursework with standard core content and learning outcomes as well as a standardization of college transcriptions. KCTCS will develop, implement, and maintain a numbering system for lower-level general education courses and establish statewide course classification and procedures to monitor the transfer and crediting of lower-level courses. Policies will be aligned for statewide articulation and transfer procedures across educational institutions and for data collection and reporting methods to ensure statewide and institutional compliance with transfer and credit requirements.

The four Appalachian community colleges used as research sites in this study were created by the Commonwealth in the 1960s and operated under the UK until July 1, 1998. As previously noted, the community college mission under UK was transfer and vocational-technical programs, although many felt the transfer framework was especially strong under UK. Eastern Kentucky’s Appalachian region had only two universities located within its boundaries making the relationship with UK critical to the transfer
The creation of KCTCS by House Bill 1 provided more support and unity to the community college vocational mission and merged community college vocational efforts with the state’s technical schools. The bitter political battle in 1997 when KCTCS was created centered largely about the fear that separation from UK would diminish the community colleges’ transfer mission.

These concerns were expressed in 1997 by several college leaders, faculty, and staff at the Appalachian community colleges that are part of this research study. Numerous opponents of House Bill 1 reflected their opinions that nothing positive and several extremely negative potentials to this ill-considered plan and expressed worry that students may suffer more than anyone as a result of the creation of KCTCS. Some college leaders questioned if degrees awarded by KCTCS will hold the same value without the UK seal on them? Other college leaders criticized the plan to create KCTCS by expressing concerns about the academic quality of education offered by the community college. These comments reflect the widely held fears across the system and in Appalachia that the creation of KCTCS would undermine the connection to UK and the seamless transfer of courses between the community college system and four-year institutions. This study found that these tensions still exist today and appear to influence transfer policies and practices at the local level.

Economically, the Appalachian region of Kentucky has lagged behind the rest of the state in education, income, and employment. Fifty-three of the Commonwealth’s 120 counties are in Appalachia according the Appalachian Regional Commission (2011) and 41 of those 53 are listed as economically-distressed counties. Distressed counties are the most economically challenged counties that have at least twice the national poverty rate
and have a per capita market income 67% of the national average or a three-year average unemployment rate that is twice the national average (ARC, 2011).

Clearly, over time the community college and state missions have fluctuated dramatically due to economic demands, student interests, and college priorities impacting transfer success. In 2008, the Courier-Journal reported that fewer students are transferring under KCTCS in 2007 than the former UK system in 1997. Evolving missions and priorities may lead to a sense of mission conflict and confusion among community college staff, faculty, and leaders. How institutions make sense of these changing missions and policies may affect organizational practices that impact transfer success. This study examines the ways in which community college staff, faculty, and leaders make sense of the transfer mission, and how their sense-making may affect institutional transfer success through transfer practices. The historical conflicts of mission at the community college and the cultural and economic realities of Appalachia form the underlying frameworks for this research study.

**Problem Statement and Purpose**

Too few community college students who intend to transfer and earn a baccalaureate degree actually do. Dougherty (2001) reports that 70% of community college students desired to transfer to a four year institution, but less than 25% of those are successful in transferring and just 60% of the transfers actually earn the baccalaureate degree. Given the community college’s comprehensive mission and changing policy background, community colleges in Kentucky may have challenges making sense of their role in student transfer. Policies and practices around transfer continue to fluctuate, so the problem explored in this study is how community colleges in Appalachia are coping
with a dynamic policy structure regarding transfer and how are they implementing transfer practices to create transfer success? Describing the sense-making of transfer staff, faculty, and administrators’ perceptions will provide a framework of how community colleges are dealing with competing missions and changing policy directives concerning transfer. By understanding the perceptions of those dealing with transfer policies and practices on daily basis, recommendations can be made to improve the efficiency and effectiveness of community colleges for student transfer success.

The purpose of this study is to discover how transfer staff, faculty, and administrators at four Appalachian community colleges are making sense of transfer policy changes in their daily practice. Twenty-seven semi-structured interviews were conducted at four Appalachian community colleges in their natural work settings. These participant interviews, along with campus observations and document analysis, allowed the researcher to collect pertinent data regarding student transfer from the researcher and institutional viewpoint. This data examines the meaning of how transfer staff, faculty, and administrators perceive their roles at the community college and how they directly deal with transfer students. No transfer students were interviewed and only community college employees with direct contact of transfer students or administrators with oversight of transfer faculty or staff were interviewed.

**Conceptual Framework and Relevant Literature**

The key objective of this study is to glean how institutional policies and practices affecting transfer rates are perceived and acted upon by institutional faculty, transfer staff, and college leaders. The concepts of organizational environment and sense-making form the conceptual framework for this study (Schein, 2010; Weick et al. 2005; Marion,
2002; Birnbaum, 1988). How do the members of these post secondary organizations make sense (Weick et al. 2005) of institutional policies and practices related to transfer rates? Are there contradictions between what is stated in policy and what is enacted in practice? Are there contradictions between competing statewide policies and practices that may result in contradictory missions, tensions, and purpose of the community college?

Weick (1976) develops a theoretical approach for examining the loosely coupled systems of educational institutions. Transfer as a process is the integration of numerous areas of the college that are loosely coupled working toward a common goal but dissimilar in purpose. Weick’s et al. (2005) challenge in this research study is to make sense of this loosely coupled world of transfer and attempt to comprehend the social realities, the imagery, the language, and the underlying meanings of what an institutional transfer environment looks like and how it operates. Weick’s et al. (2005) sense-making of the transfer process involves the organization of actions, words, environment, and social interactions into an emerging story of how and why educational institutions develop group norms, shared assumptions and meanings that lead actors within an institution to engage in daily practices. Sense-making according to Weick et al. (2005) involves the ongoing retrospective development of plausible images that rationalize what people are doing.

This research study seeks to understand how transfer faculty, staff, and college leaders internalize their perceived assumptions regarding the transfer mission of the community college system in Kentucky and specifically four of its colleges in Appalachia. Sense-making (Weick et al., 2005) of college faculty, staff, and leaders’
individual and institutional roles as facilitators of the transfer process for community college students are demonstrated through their direct actions and words. Also, perceptions of system and institutional missions’ influences actions and words related to transfer policies that foster either positive or negative transfer practices. Ultimately, how college faculty, staff, and leaders’ perceive or make sense (Weick et al., 2005) of the system transfer mission as depicted by their individual colleges will determine the extent of positive or negative transfer practices regarding student transfer.

**Organizational Transfer Culture**

Organizational transfer culture is a term used to signify the priorities of a college likely to demonstrate transfer success (Serban et al., 2008). A successful transfer culture can be used as an omnipresent characteristic of the colleges with successful transfer. Numerous education researchers have used the term transfer culture (Rivas et al., 2007; Wassmer et al., 2003; Ornelas, 2002; Shaw & London, 2001) to specifically describe how an institution improves their transfer success and is not to be confused with an anthropological depiction of culture or cultural studies. Serban et al. (2008) describes the creation of a transfer culture at the community college as a key practice to improving transfer. Numerous policies and practices at the community college contribute to improving the transfer success. These include viewing transfer as an institutional expectation or mission; rigorous program offerings of writing, critical thinking, math, and science (Handel, 2007); high quality instruction with innovative teaching strategies; academic support programs such as a transfer center, transfer counseling and advising (Gabbard, et al. 2006; Poisel & Stinar, 2005; Henry & Knight, 2003; Cuseo, 2001); an environment of belonging (Swail, et al. 2003; Astin, 1993; Tinto, 1993; Bean, 1990); and
strong community and family connections (Townsend, 2002) promoting intellectual
discourse.

Dougherty (2001) attributes both student characteristics and institutional policies
and practices as barriers for student transfer success. He details the effects of community
college transfer culture and corresponding transfer rates through the community college
‘baccalaureate gap’, as he describes this phenomenon. Numerous studies (Lavin &
Crook, 1990; Nunley & Breneman, 1988; Velez, 1985; Anderson, 1984; Astin et al.,
1982) have shown that student characteristics alone cannot explain why community
college transfer success differs. These estimates claim students that begin at community
colleges complete 11% to 19% fewer baccalaureates than comparable students that begin
at four-year institutions (Dougherty, 2001). Institutional characteristics play a role in
successful student transfer and persistence toward the baccalaureate degree. Tinto (1975,
1987) describes lower transfer success in terms of a lack of social integration of the
student into campus environments as community colleges provide less opportunity for
extracurricular activities, are less likely to provide in-depth student contact with faculty,
and are less nurturing of the development of a core base of friends on campus. The lack
of these features negatively impacts the transfer success and may serve as cultural
impediments to community college students that aspire to transfer (Dougherty, 2001).

Transfer Barriers

Cuseo (2001) describes some key institutional obstacles faced by transfer students
when transitioning to the four-year institution. Community college transfer barriers are
curricular if the multiple missions of the community college limit the number of transfer
courses offered or require non-transferrable courses of transfer students (Doyle, 2006).
For example, the four-year institution may not accept courses specifically for degree programs, but only as electives. Changes may be made to the undergraduate curriculum without consulting or informing the community college or, transfer agreements may be altered hampering transfer success. Receiving institutions often place admissions and registration barriers to transfer by forcing transfer students to be admitted and register after all native and freshmen students, putting them at a disadvantage in terms of scheduling and making progress to baccalaureate degree completion.

The role of Kentucky lawmakers and the creation and implementation of successful transfer policies and practices are essential in making transfer a reality for transfer students. Gabbard et al. (2006) argues that successful transfer is driven by statewide articulation agreements that guarantee community college transfer students with an Associate degree, appropriate for transfer, a place at one of the state universities. Dicroce (2005) asserts that the transfer associate degree only makes sense if it is integrated by law into the first two years of baccalaureate work and has transferrable value toward the core curriculum. Much discontent concerning transfer issues involve articulation policies that are disjointed and how best to bring institutions better in alignment with each other (Zinser & Hanssen, 2006; Prager, 1993). Other researchers have focused upon state governance as the source of transfer friction between community colleges and the four-year institutions (Falconetti, 2009; Lovell & Trouth, 2002; Bueschel & Venezia, 2006). Cohen (2003) maps out key factors the states can positively implement to improve and enhance the transfer rates at community colleges. These include legislative articulation agreements either on a course-by course or institution-to-institution basis, common curriculum core, common core numbering, and guaranteed
admission for students meeting the basic core criteria. States such as Florida and California have implemented many of these types of articulation agreements.

**Institutional Relationships**

Seppanen (2001) stresses collaboration between the sending and receiving institutions as a key for successful transfer. Gabbard et al. (2006) identified several factors of collaboration that demonstrate an exemplary transfer partnership between institutions. Some key strategies include receiving institutions housing an office at the sending institution, coordination between receiving and sending faculty within programs, peer advising for transfer students consisting of both receiving and sending institutional advisors, and summer transfer programs with both receiving and sending institutional faculty participation. Cueso (2001) found that co-registration agreements between sending and receiving institutions, designated transfer advisors and counselors, presence of a transfer center and coordinator, effective summer bridge programs, and transfer peer mentoring are also key factors facilitating successful transfer.

**Research Design**

The overall intent of the study is to investigate community colleges in Appalachia through ethnographic interviews and explain how they are interpreting in practice a changing policy and mission structure regarding transfer. If recognized positive transfer practices from the literature are being implemented, do these policy factors promote student transfer process to become more successful? Semi-structured ethnographic interviews were conducted to discover perceptions, attitudes, and activities from transfer staff, faculty, and administrators at four Appalachian community colleges. Additionally, multiple sources of data were compared in the data analysis including observations and
document analysis (Marshall & Rossman, 2006). The research design included developing key research questions to explore transfer staff, faculty, and administrators’ perceptions of transfer policies and practices. Weick’s et al. (2005) sense-making with Clark’s (1960) cooling out and Grubb’s (2006) heating up contextualize the overall design to allow an interpretation of interview responses. These contextualized meanings of transfer policies and practices are inductive and emergent in design, therefore interpretive and holistic lens are used to discuss the collected data (Marshall & Rossman, 2006).

**Research Settings**

The research sites were four community colleges in Kentucky’s Appalachian region of Eastern Kentucky. A major rational of the study was to engage in ethnographic observations and conversational interviews to construct transfer perceptions from these community colleges. The research interviews were conducted in the natural environments of the participants’ work setting (Marshall & Rossman, 2006). These four colleges serve approximately two-thirds of Kentucky’s total Appalachian region as defined by the Appalachian Regional Commission (2010). Research interviews in this study included a total of nine separate campuses and centers at these four Appalachian community colleges, within eight separate Eastern Kentucky counties, see Figure 3.1 in Appendix F. The state community college system in Kentucky has 16 college districts, so these four colleges represent one-fourth of the state’s total community colleges, but these four are uniquely Appalachian.
Research Participants

The research participants were twenty-seven community college transfer staff, faculty, and administrators. Fourteen interview participants were transfer staff, while seven were faculty, and six were administrators or college leaders. The transfer staff participants held positions that were in direct contact with transfer students including transfer center advisors, student support specialists, recruitment staff, developmental education staff, and transfer counselors. Faculty participants were liberal arts transfer advisors in health, science, humanities, and social sciences, while administrators’ interviewed were college presidents, provosts, deans, and associate deans. These interview participants have daily contact with transfer students through advising sessions, classroom contact, orientations, and career counseling. The decision to interview these participants were determined by the system catalog identifying key transfer staff as well as discussions with key transfer staff identifying other persons strongly tied with transfer whether they are staff, faculty, or administrators. A key part of this study is to describe participant perceptions and experiences, as such no one reality exists to describe the transfer process, but multiple realities may exist based upon the separate and distinctive experiences of the transfer participants (Marshall & Rossman, 2006).

Data Collection and Analysis

Our research team with two researchers conducted the interviews using the Rapid Assessment Process (RAP) to guide the interview process. RAP is defined as intensive, team-based qualitative inquiry using triangulation, iterative data analysis and additional data collection to quickly develop a preliminary understand of a situation from the insider’s perspective (Beebe, 2001). RAP is commonly used as a means to conduct
qualitative/ethnographic research through understanding events in their natural context, allowing participants to speak for themselves, and constructing the whole experience their perceptions and actions (Beebe, 2001). The conversational interviews lasted approximately 45 minutes to an hour each with 45 minutes to an hour of post-interview discussion to detail and decipher the themes uncovered during the interviews. The conversations began with a general introduction and overview of the research project with some background information of how I engage in transfer advising as well and share many common experiences with the research participants. This form of interview ‘ice-breaking’ seemed to make the process more comfortable, so the participants would see me as a colleague working in a very similar work environment (Marshall & Grossman, 2006). These conversations were very informal and I purposefully described them as ‘transfer discussions or conversations’ not as formal interviews, in an attempt to gain a more real understanding of their transfer perceptions and experiences. Guiding these conversations were the following grand tour questions (Spradley, 1979).

- What are the key policies and practices that determine your institution’s transfer success?
- What are the primary institutional practices that prevent students from transferring from your institution?
- Given your understanding of policies and practices that guide transfer in the Kentucky legislature, the college system office, and your local college, what are your perceptions of the transfer policies and practices priorities in the state, the system, and your college?
Additional follow-up questions arose from the ensuing discussion to enrich and inform how college leaders, faculty, and transfer staff perceived institutional policies and practices impact upon transfer success.

Descriptive notes were taken to document and analyze the words, phrases, and commentary to the questions posed. Immediately after the conversations, our research team reflected upon the experience forming collective feelings, interpretations, ideas, hunches, and subjective impressions (McMillan, 2008; Marshall & Rossman, 2006) of the institutional transfer environment utilizing the Rapid Assessment Process. Unpacking any unexamined aspects of the conversations and observations (McMillan, 2008) was a critical part of the research process, as about 45 minutes to an hour was taken to fully document and reflect upon each individual ethnographic interview. The interview data was analyzed by coding themes based upon responses to questions, but also by rewriting the various responses to research questions and exploring the various meanings of those responses.

Field notes were taken while observing the transfer climate on the various campuses during ethnographic interviews depicting the organization of the offices and how professional the participants engaged the interviews. External to the interviews, field notes were taken on the campuses concerning the organization of transfer offices, parking availability, classroom I, and general responses from employees to inquiries while walking through buildings, and signage assisting students to find transfer offices. Documents analyzed included system catalogs, transfer handouts and pamphlets, transfer check sheets, transfer guides, and college website information regarding transfer. While interviews were the primary focus of the study, observations and document analysis
proved to a vital and useful means of deciphering and collecting data surrounding student transfer success.

Validity of Data and Position of Researcher

The qualitative research was collected from direct interviews and the researcher was the key instrument in collecting the research data. The field notes from the interviews were then coded (Marshall & Rossman, 2006) jointly between the two researchers conducting the interviews to eliminate any preconceived bias or predilections. Direct open response to questions tends to be a valid and usable form of data collection (McMillan, 2008). Themes were coded into recognized practices and validated by the multiple sources of interviews, observations, and document analysis. This triangulation method is an accepted way of building coherent justification of the themes (Marshall & Rossman, 2006). The task was to understand how research participants made sense of transfer policies and put these policies into practice. Transfer staff interviewees brought their own biases to the interviews, so careful consideration was given to focus upon what transfer staff does to influence transfer, not what transfer staff believes they do to influence transfer. While qualitative responses can be interpreted subjectively, efforts were made during the coding process to be as objective and credible as possible and not to interject any opinions or subjectivity.

As a former transfer student from an Appalachian community college to a public university in Kentucky and current faculty member at a community college in the Kentucky system, my personal experiences informed this study. These experiences will allow an understanding from my personal student and faculty points of view regarding the transfer process. Reflexivity (Creswell, 2009) gives me a unique point of view for
this study, as a typical Appalachian transfer student from a poor background where education was not stressed. Personally, I depended on federal education Pell grants to further my education, and had intense struggles academically with composition and writing. Given these cultural impediments, I successfully navigated the transfer process and graduated with the associate degree from a community college and the baccalaureate degree from a land grant university in four years from the time initially enrolled at the community college. Sharing most of the same student characteristics, demographic traits, and academic preparedness that students in this study possess provided certain advantages and disadvantages in the research and data collection process.

Observations and Document Analysis

The ethnographic interviews or conversations were conducted with transfer staff, faculty, and administrators or college leaders. My personal observations of the conversations include a detailed overview of the interviewees’ work environment. Transfer staff conversations were typically conducted in an area of student support, advising or transfer center with lots of people in the general vicinity and a secretary available. Transfer staff’s offices consisted of advising manuals, four-year catalogs, add-drop slips, advising check sheets, and a large computer screen. Some transfer staff interviews were conducted in their offices, while others selected a larger table area in their immediate work environment or private conference office. Transfer staff’s primary task was advising or counseling students and it was apparent by their conduct and office organization.

Faculty conversations were exclusively conducted in the faculty’s office. Faculty offices were smaller than staff offices and generally one secretary may be available for
dozens of faculty. Faculty offices were cluttered with papers, textbooks, journals, articles, and the occasional coffee pot. Faculty computer screens were smaller than staff computers and advising was definitely a task to be fit into their already busy daily teaching schedule. Faculty offices only had room for two, sometimes one other person, given the close quarters. Administrator’s offices were overwhelmingly superior to faculty offices with a personal secretary, large personal office, and large conference room available for such interviews. Administrator’s computer screens were overly large with designer furniture and pictures to match. Administrator’s had very few texts or books showing on shelves, mostly administrative manuals and paperwork.

The grounds of the colleges and campuses were typical as some buildings were older and others were newly constructed. Most campuses provided adequate signage for persons relatively familiar with college campus, but likely inappropriate for visitors unaccustomed to higher education settings. Signage to the campus and parking for students was relatively normal, while a few campuses demanded quite a walk for students and some allowed privileged parking for faculty, staff, and administrators. The overall grounds appeared to be conducive to a positive learning environment and possessed many of the traits and characteristics that I believe are academic in nature such as a modern library, cafeteria access, and modern technology in most classrooms. Observations of the campuses internal and external environments were important components in attempting to understanding the meaning of what participants would reveal during the transfer conversations.

Document analysis focused upon reviewing the system catalog, transfer check sheets or block transfer sheets, transfer guides, various transfer information provided on
campuses, and website materials via college and system websites. The system catalog contains some errors concerning programs and courses that generally should be noticed by a competent advisor. Transfer check sheet for advisors were often found to have mistakes and not up to date on websites for the colleges. Transfer guides were not commonly found, as only two participants used comprehensive transfer guides. Other transfer documents provided on campuses were more superficial in nature and did not provide any in-depth specifics about transfer, but were informational concerning contacts and office locations.

Discussion of the Findings

The two major themes that emerged from ethnographic transfer conversations were the impact of advising and institutional relationships on successful transfer. Those practices, both positive and negative, are examined in reference to mission tension and how participants made sense of the college transfer mission through advising and institutional relationships. Community colleges that are coping well with changes in transfer policies and practices will foster better student transfer success, while mission tensions and an inability to deal with changes in transfer policies and practices will negate student transfer. Analysis of the ethnographic interviews provides examples of positive and negative practices at these four Appalachian community colleges and shows how participants perceive their role and that of their institution in fostering student transfer success. My interpretations of the findings along with direct quotes from the ethnographic interviews will provide evidence of negative and positive transfer practices at these four Appalachian community colleges. Also, sense-making of the mission and how it relates to transfer practices is discussed as part of the conversation.
Negative Transfer Practices

Numerous negative practices were revealed during the research process that demonstrated an unsuccessful, unclear organizational culture that often discouraged and disenabled successful student transfer success. These tensions were practices related to mission conflict surrounding advising and institutional relationships and appeared as the norms during the interviews rather than the exceptions. Negative practices concerning advising related to a lack of communication and misinformation demonstrated by one long standing social science faculty member comment as “advisor availability and luck of the draw often determines whether students get a quality, knowledgeable advisor.” This faculty advisor identified a common issue of re-advising students that have been misadvised due to students encountering an advisor that was either misinformed or incompetent.

Both faculty and staff advisors gave direct examples of how transfer check sheets, the system catalog, transfer materials were incorrect, but discovered the errors after the registration process causing students significant problems in block transfer completion. One science faculty advisor that primarily advises in the health sciences said that “numerous errors in the system catalog causes advising mistakes and the process of revisiting past advisees to correct errors causes inefficiency and a huge waste of time for both advisors and students.” Given the numerous advisees faculty and staff advisors advise, it is not possible to re-check the accuracy of advising material provided per student advised. This type of transfer tension speaks to where and how institutions invest their resources and their collective efforts to make certain that advising materials provided to advisors are correct.
Advising tensions were also revealed about the process of advising. Faculty and staff advisors reported that advising never stops and has no beginning and no end from semester to semester. One staff advisor that works in the transfer center gave detailed examples of continuous advising as detrimental to student transfer success. “Advising never begins or ends, so students are confused when advising is continuous from one term to the next. Set times for advising for the next semester allows students to see a specific window for advising and get a sense of advising structure.” A humanities faculty advisor gave the impression that beginning and end dates for advising would help the process, “ongoing advising doesn’t foster a sense of urgency for students seeking advising.” Also, many campuses engaged in advising that caused students to potentially visit multiple advisors. One example given by a history faculty member, discussed a student that never was advised by the same advisor from semester to semester on their path to the transfer degree, that faculty member said that “multiple advisors confuse transfer students and impede their progress and that many students give up on finding a single advisor to help them.” The general consensus by both faculty and staff advisors was that students should be assigned to one advisor and that singular advisor should advise them while they are at the community college, unless they make major changes to their career path.

The final major advising impediment revealed was regarding methods of advising as to whether the advising process was providing actual advising versus mere scheduling of classes. Specific examples were given by both faculty and staff advisors where some faculty advisors were just scheduling classes, often in as quick a time as possible, primarily due to either a misunderstanding of the purpose of the advising process or a
sense of importance biased toward teaching as opposed to advising. Most staff advisors were described as diligent and thorough in discussing career plans with students and providing advice and guidance, then after those conversations they provided assistance in scheduling classes with students. Some faculty advisors were described as careful and thorough in advising, while many other faculty advisors were described as careless and only engaging in quick scheduling of classes. Staff advisors in the transfer centers felt that scheduling alone did not translate into student transfer success. Students were better advised and better transfer success that also had career planning discussed rather than just scheduling for classes. A relative new transfer center staff advisor summarized many advising problems as, “some advisors merely schedule classes; if transfer students are to be successfully advised, advisors should be engaging in career planning and in-depth advising beyond only the scheduling of classes to help achieve better transfer success.”

Other negative practices resulting from mission tension surrounds institutional relationships. If community colleges and four-year institutions do not work collaboratively together for student transfer success, students encounter negative practices at the community college that blocks them from transfer. These may include disconnect between transferring institutions that does not facilitate or foster communication or information channels. One example provided by a health science faculty member during the interviews was an inability to communicate with a four-year institution, “I can never communicate directly with four-year advisors, phone calls are rarely returned and some four-year schools show a disregard for our transfer students.” Other direct examples of institutional friction were course mismatches between institutions. Biology faculty advisors reported that even though catalog descriptions were
virtually identical and other four-year institutions accepted the community college equivalent courses, certain four-year institutions chose to block them for transfer, “some physical science courses face institutional barriers for transfer, even though they are equivalent courses, if our programs had a better communication network these types of issues could likely be resolved.” HB 160 seeks to remedy issues like these, but they are still prevalent and cause transfer tensions between institutions.

Interview participants had one common concern and suggestion to better institutional relationships. If community colleges and four-year institutions are collaborating and want to successfully foster community college transfer success, why do these institutions not prepare and distribute an annual transfer guide between institutions? One twenty-year veteran staff advisor that advises most transfer student on their campus said that, “the creation of a universal transfer guide depicting course and program articulation between institutions would be the simplest and most effective change possible to increase transfer success.” This proposed transfer guide would show exact requirements from the community college through the baccalaureate degree. College administrators provided examples of course mismatches, lack of a common numbering system, lack of uniform transfer guides, and slowly moving articulation agreements as evidence that four-year institutions are not universal in their desire to work with community colleges to foster transfer success. Again, the legislation in HB 160 is intended to begin to work on some of these key concerns surrounding transfer problems.

Positive Transfer Practices

Positive practices were also revealed during the research process that demonstrated a successful organizational culture that encouraged and enabled successful
advising practices that fostered student transfer success. Although these positive practices were not highlighted during the interviews and the interviewer was often required to press participants for positive practices. Faculty and staff described experiences during advising sessions that connected with students and greatly enhance their transfer success. One example, a transfer center staff advisor detailed hearing out a student’s career plans fully before engaging in program recommendations or course selection, “building trust with students while discussing career plans and aspirations enhances transfer success, students generally know when you are seriously engaged in their progress and often appreciate your efforts in helping them succeed.”

This act of listening and providing attention to student needs and desires was reported as a good practice, as opposed to simply telling the students what courses they need to complete. This facilitated trust of the advisor and student buy-in once the proper program and courses were discussed. Another example of positive practices from a veteran social science faculty advisor during advising sessions was careful discussion of the block transfer check sheet along with either catalog or website viewing of the transferring four-year institution. “I take the extra time to map out for each student I advise their block transfer sheet, so the student has a clear understand of the path toward transfer, that small extra effort to connect with the student and show a genuine desire to see them transfer is very important to student success.” This practice was revealed to connect the transfer student with their entire transfer career path and see not only the community college courses, but also the four-year institutions courses needed upon transfer. These two examples show the necessity for transfer advisors to listen carefully
to student career plans and to be meticulous with student program and course
requirements as key advising practices to foster transfer success.

These examples are closely related to two other positive practices revealed to
foster student transfer success. Advisor training and career planning training are two key
areas that faculty and staff advisors mentioned as important pieces of successfully
advising transfer students. Advisor training communicates transfer information to
advisors that has changed since the previous semester. Specific examples include
information relative to advising such as, changes in compass test scores for entering
developmental courses, changes in prefixes of transfer courses so advisors can find the
proper courses to schedule with students, and changes in four-year requirements in
certain programs. The training provided for advisors is essential for successful advising
without significant advising errors. Most faculty and staff advisors reported wanted
“more advising training to catch potential error that may block student transfer success.”
Specifically, several transfer faculty felt they were “not adequately prepared to advise
new transfer students due to the numerous changes that occur in the transfer process that
faculty often don’t know about.”

The other area of key training for transfer advisors is career planning. Staff
advisors provided examples of how career planning with students was a very difficult
task, but the training process exposed advisors to best practices by walking students step-
by-step through a career path to achieve specific career goals. Faculty advisors gave
examples of how many students may have a career plan, but did not know how to
articulate or explain their plans to advisors. One education faculty member that advises
transfer students said that “most students have the academic ability to transfer, but career
planning discussions revealed that most are place bound and cannot physically transfer, so often technical programs are better suited to fulfill their needs.” Through the career planning training, advisors were able to slowly pull that information from students enabling the advising and scheduling process much smoother and the students much happier with their advising sessions. These positive transfer advising practices can be viewed with the lens that advisors were forming mentorship relationships with students. Both faculty and staff advisors mentioned the importance of forming lasting bonds with students during advising sessions. Examples were provided by faculty teaching biology and history of the numerous students that came back to the community college after successful transfer or baccalaureate completion and credited them in their advising roles. “Many successful transfer students return to tell me of their accomplishments.” Faculty advisors detailed examples of how their advisees had later told them that their transfer success from the community college was largely due to the close mentorship relationships they received at the community college during the advising process. One transfer center staff advisor said that “many successful transfer students reveal that without the close bonds formed on the community college campus, they would have not been successful in transfer and in eventual baccalaureate attainment.”

Other positive practices revealed during the research process included successful institutional relationships between institutions that fostered student transfer success. These practices are both student and institutional relationships formed with four-year institutions as revealed by faculty and staff advisors. These relationships were provided in two types of examples, those connections by students with four-year institutions on the community college campus and those connections with four-year institutions on the four-
year campuses. Staff advisors provided examples of how easy the process of connecting students with four-year institutions is when the four-year institution is located directly down the hall or in another building on campus. “I often walk student down the hall to meet with four-year advisors and that close connection is essential for transfer success. My close friendship with the four-year advisors down the hall allows us to work together for student transfer success.” Faculty and staff advisors gave examples of how much students appreciated and supported the relationships between institutions that allowed them to be housed on the community college campuses and felt that it enabled their transfer success. One transfer staff advisor at a campus extension about 30 miles from the main college campus commented that, “partnerships between institutions without physical transfer are preferred by Appalachian place bound students, without these programs even less students would be successfully transferring.”

The other major institutional relationship revealed as a positive practice between institutions is when community college faculty, advisors, or staff take groups of students to the four-year institutions for tours and visits. Transfer center staff at multiple colleges gave examples of how single visits to four-year institutions and the support that was provided during those trips were the sole reasons that many transfer students moved to those institutions. A staff advisor at a community college campus about two hours from the nearest four-year main campus revealed that, “campus visits to the four-year institution is the single most important contact for transfer students.” This shows that individual connections and interactions between institutions and transfer students foster transfer success. These types of relationships between institutions are only possible when institutions work together for student achievement and student transfer success. Whether
on the community college or four-year campus, transfer student connections matter for transfer success. The more individual attention and help that transfer students receive from the collaboration of community colleges and four-year institutions, the more likely students are to transfer successfully. Positive transfer practices are known, but implementation by college faculty, staff, and leaders is often difficult due to their perceptions about the culture and economic realities of the Appalachian region. The socioeconomics of the region largely dictate that not all Appalachian students have the financial ability or family flexibility to physically transfer to a four-year institution.

**Sense-making of Mission**

An important finding of the ethnographic interviews was that negative transfer practices tended to dominate positive transfer practices in participants’ comments, interests, and conversational responses to questions. This provides evidence that participant sense-making about the institutional mission of transfer is overwhelmingly negative. This outcome provides an explanation of why Appalachian community colleges may not be doing a very good job at promoting successful transfer for transfer degree graduates. In discussing how community colleges view mission conflict, the interview conversations revealed attitudes and perceptions about how faculty, staff, and college leaders make sense of the institutional and system transfer missions. My analysis of what I heard participants reveal during interviews links the conceptual framework of sense-making (Weick et al., 2005) and cooling-out (Clark, 1960) directly to the findings of the study.

My interpretation of the interview responses from faculty, staff, and college leaders demonstrates how sense-making (Weick et al., 2005) of the transfer mission in
conjunction with the other missions of the college explains why the negative transfer practices were so prevalent. Several key rationales of why transfer may not be the best path for transfer oriented students in the Appalachian region were revealed during the conversations. Comments during conversations from a transfer center staff advisor that works closely with Appalachian transfer students included, “the goal of community colleges are to help students escape poverty, technical programs offer the best chance and job access is key for students and since most families are place bound, technical programs make sense.” Job access, employment, and wages were thought to be better aligned in the Appalachian region for technical degree graduates. The local economies in Appalachia are not centered about occupations that require baccalaureate degrees. Therefore, the thinking among community college faculty, staff, and leaders are that baccalaureate degrees are not typically useful in the Appalachian region for most occupations. A veteran faculty member in the social sciences supporting this view included, “most students are here for technical programs and are not interested in transfer” and “mission drift is toward technical degrees to meet regional needs such as health care.” These assumptions are based upon the economic reality that local economies do not have the infrastructure or private sector investment to support high levels of employment for baccalaureate graduates. One college leaders’ comment pointed out that “we are not in California and vocational degrees serve students in Appalachia better than expensive baccalaureate degrees that have little value in the region.”

This interpretation is based upon another rationale revealed during the interviews that Appalachian students are place bound due to multiple factors including jobs, family
structure, transportation, or health related circumstances. One student support staff advisor that has worked with transfer students for the last five years said that, “most students have the academic abilities to transfer, but life issues prevent transfer, so technical programs fulfill their needs.” Whatever the case may be, Appalachian students by and large do not want to leave their immediate communities, as perceived by faculty and staff that deal with transfer students on a daily basis. Student’s desire to transfer that includes relocation to a new city presents an impenetrable barrier that faculty, staff, and college leaders perceive that is unwavering, thereby fostering negative transfer practices to better assist the students achieve their underlying desire of not to leave the local region.

According to one college leader, most students desiring to transfer have “simply no possibility of transferring due to being place bound and the community college offers the only hope of a higher education.” This place bound status of Appalachian students helps explain why participants overwhelmingly applauded the successes of four-year programs offered on the community college campuses in Appalachia. Students could continue to make progress toward the baccalaureate degree without physically relocating. College faculty, staff, and leaders on all campuses were much more likely to demonstrate positive transfer practices toward students transferring to programs offered on the community college campus rather than transfers that included physical relocations to new communities.

One staff advisor that works with transfer students that are primarily low income said that in college wide meetings the transfer mission is rarely if ever mentioned. “Transfer lacks emphasis and is not discussed as we have shifted toward developmental
issues and the reality the most students are not prepared to enter college.” A science faculty member that works extensively with pre-professional programs such as pre-pharmacy and pre-medicine gave the example of virtually no advertising in the local community for transfer programs at the college and a noticeable degree of advertising for health related programs, “technical programs are the focus on the college, especially in allied health and related health programs.” Social science faculty as well as student support service staff provided examples of meeting and orientations with faculty and staff reinforcing the desire for completers, not transfers, as the college goal, “completers are the core mission and completers, not transfer, is the mission.”

College leaders gave examples of community forums and meetings reflecting views that transfer does not necessarily meet community and regional needs, since transfer students typically leave the community. Multiple faculty members in areas of science, social science, and humanities referred to the growth in technical programs and the reduction in transfer emphasis over the years as proof that the transfer mission has been greatly diminished. These comments referred to this ongoing mission conflict, “technical program emphasis is diverting transfer students”, “widespread view that liberal arts transfer is diminished”, “cultural shift away from transfer toward technical programs”, and “AA/AS degrees are often seems as an achievement, but not necessarily for transfer.” These faculty and staff comments are representative of the interviews showing that community college employees dealing with transfer students perceive the transfer role as diminished in importance at the community college.
Conclusion of Findings

These findings support the research hypothesis, when community colleges are coping successfully with the changing transfer policy landscape and implementing positive transfer practices they do a better job at promoting student transfer success. These participant interviews provided evidence through examples of the importance and significance of recognized transfer practices. Colleges that are coping well with a changing transfer policy environment and engaging in positive transfer practices have more transfer success. These realities are somewhat misplaced as community colleges know what transfer practices work successfully. As long as faculty, staff, and college leaders harbor culture assumptions concerning Appalachia and Appalachian economic realities continue to favor technical as opposed to transfer-baccalaureate degrees, then Appalachian community colleges will not fully embrace transfer.

Negative transfer practices are common place and persist over time at Appalachian community colleges due to the various rationales that community college faculty, staff, and college leaders internalize and accept as conceptual realities. Simply, Appalachian community colleges do not view transfer, by and large, as a means to a successful career or employment for place bound, rural Appalachian students. The negative transfer practices are merely reflections of the way that community college faculty, staff, and leaders are making sense of the cultural and economic realities that they experience everyday through the lens of the Appalachian community college student. Therefore, transfer policies enacted on the state, system, or college level cannot directly address the fundamental issue regarding Appalachian community college student transfer. Transfer practices on these community college campuses are a reflection of the
Appalachian economic environment in eastern Kentucky and are not conducive or supportive of promoting or encouraging community college transfer since the regional economy revolves primarily around occupations and industries that do not require baccalaureate degrees for entry and advancement.

**Implications for Transfer Practice and Policy**

Resolving mission conflict in practice and fostering better student transfer success are some implications of this study. Community colleges know what practices are needed to foster student transfer success. These include providing the time required to listen to students’ concerns and career plans, providing students with correct information and guidance, and communicating with students a genuine interest in their success as a community college mentor. Institutional relationships are also important as positive practices. These include building relationships with four-year institutions and if possible housing them on the community college campuses. Also, providing transfer students with semester visits and tours of the four-year institutions to meet with advisors, program chairs, and getting familiar with the four-year campus is vitally important for transfer success.

Community colleges also know what practices to avoid. Institutions must check the accuracy of transfer documents and materials to prevent inaccurate information from getting to advisors that will promote incorrect advisement of transfer students. In addition, students should be assigned to a single advisor as not to complicate the process and advisors should engage in advising, not simply scheduling the student for classes. This takes more time, but student transfer success is much better according to participant perceptions. Transfer tensions provide opportunities for better collaboration and
communication between community colleges and four-year institutions. Perhaps the most significant barrier to student transfer is when the community college is isolated and removed from direct collaboration with the four-year institution, so communication between institutions is a necessity for successful transfer.

Implications for institutional and state policies focus efforts back to advising and institutional agreements. Institutional policies that will promote transfer are those that clarify and simply the advising process. Institutions should make it known to all transfer advisors that their advising practices are the most positive actions the college takes to motivate and provide a helpful path to successful transfer. State policies to encourage or require clear, concise transfer guides would be the best and most significant assistance to foster student transfer success. Institutions would need to come to agreements on what is and what is not required in a specific program curriculum. This would greatly ease any uncertainty that may continue to persist concerning transfer from the community college. The implications on the organizational culture of the community college would be to remove the uncertainty of the dedication of both community colleges and four-year institutions to foster student transfer success.

**Limitations and Recommendations**

This research study has certain limitations regarding how well the colleges cope with a changing policy structure and its impact upon transfer success. The most glaring limitation is the study does not interview students or gather relevant information about the student’s perceptions of college transfer policies and practices. The other major weakness of the study is the limited scope of twenty-seven interviews at four Appalachian community colleges. A broader ethnographic study over a larger time frame
with more participants and colleges would provide more depth and breadth to the study. The primary recommendation for a future study would be to build upon the research design and methods by interviewing more transfer staff, faculty, and college leaders at additional community colleges about their perceptions of transfer policies and practice that promote successfully student transfer. Although this must be undertaken with the understanding that negative transfer practices are not the result of a misunderstanding of what needs to be done to promote transfer, but from the viewpoint that community colleges are still yet unwilling to accept the premise that transfer is inevitably in the best interest of community college students, especially in rural Appalachia.
Appendices

Appendix F

Map of Appalachian Community Colleges in Kentucky
Appendix G
Informed Consent Form

Consent to Participate in a Research Study

APPALACHIAN BRIDGES TO THE BACCALAUREATE
Appalachian Community College Transfer
Institutional Perceptions of Community College Transfer Success

Organizational Structure and Mattering: How Community Colleges Affect Transfer Success

WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?

You are being invited to take part in a research study about institutional and student characteristics that matter in the pathway to the baccalaureate degree. You are being invited to take part in this research study because you have been identified as a staff member or college leader involved with the transfer process at your college. If you volunteer to take part in this study, you will be one of about 24 people to do so.

WHO IS DOING THE STUDY?

The person in charge of this study is Amber Decker, a doctoral student at the University of Kentucky, Department of Education Policy Studies and Evaluation. She is being guided in this research by Dr. Jane Jensen. Other researchers involved in the study are Christopher Phillips, Michelle Dykes, and Nancy Preston who are also doctoral students in the same program.

WHAT IS THE PURPOSE OF THIS STUDY?

The proposed study seeks to explore the interface between institutional and student characteristics and transfer success indicators. By doing this study, we hope to learn how different characteristics affect students and their pathway to the baccalaureate degree.

ARE THERE REASONS WHY YOU SHOULD NOT TAKE PART IN THIS STUDY?

Any person may decline participation without harm.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The research procedures will be conducted at the participants’ home campus. You will need to come to the designated place on campus one time during the study. Each visit
will take about 45 minutes. The total amount of time you will be asked to volunteer for this study is 45 minutes during the month of December, 2010 or January, 2011.

**WHAT WILL YOU BE ASKED TO DO?**

During a 45-minute interview, you will be asked to reflect on information about your college’s institutional and student characteristics related to the transfer process. This information will be provided to you by the researchers. Researchers will ask you questions about your perceptions regarding how these characteristics are related to various transfer success indicators. After completion of the interview, the researchers will discuss and compile the major themes that emerge from your responses.

**WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?**

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

**WILL YOU BENEFIT FROM TAKING PART IN THIS STUDY?**

There is no guarantee that you will get any benefit from taking part in this study. Your willingness to take part, however, may, in the future, help community colleges as a whole better understand the transfer experience.

**DO YOU HAVE TO TAKE PART IN THE STUDY?**

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.

**IF YOU DON’T WANT TO TAKE PART IN THE STUDY, ARE THERE OTHER CHOICES?**

If you do not want to be in the study, there are no other choices except not to take part in the study.

**WHAT WILL IT COST YOU TO PARTICIPATE?**

There are no costs associated with taking part in the study.

**WILL YOU RECEIVE ANY REWARDS FOR TAKING PART IN THIS STUDY?**

You will not receive any rewards or payment for taking part in the study.

**WHO WILL SEE THE INFORMATION THAT YOU GIVE?**

We will make every effort to keep private all research records that identify you to the extent allowed by law.

Your information will be combined with information from other people taking part in the study. When we write about the study to share it with other researchers, we will write about the combined information we have gathered. You will not be personally identified
in these written materials. We may publish the results of this study; however, we will
keep your name and other identifying information private.

We will make every effort to prevent anyone who is not on the research team from
knowing that you gave us information, or what that information is. All data will remain
in the possession of the researchers or be kept in a locked cabinet or password protected
system at the researchers’ office.

We will keep private all research records that identify you to the extent allowed by law.
However, there are some circumstances in which we may have to show your information
to other people. We may be required to show information which identifies you to people
who need to be sure we have done the research correctly; these would be people from
such organizations as the University of Kentucky.

**CAN YOUR TAKING PART IN THE STUDY END EARLY?**

If you decide to take part in the study you still have the right to decide at any time that
you no longer want to continue. You will not be treated differently if you decide to stop
taking part in the study.

The individuals conducting the study may need to withdraw you from the study. This
may occur if you are not able to follow the directions they give you, if they find that your
being in the study is more risk than benefit to you, or if the study ends early for a variety
of reasons.

**WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS, CONCERNS, OR
COMPLAINTS?**

Before you decide whether to accept this invitation to take part in the study, please ask
any questions that might come to mind now. Later, if you have questions, suggestions,
concerns, or complaints about the study, you can contact the investigator(s), Amber
Decker at amber.decker@kctcs.edu or (859) 442-1147, or Chris Phillips at
chris.phillips@kctcs.edu or (606) 679-8501. If you have any questions about your rights
as a volunteer in this research, contact the staff in the Office of Research Integrity at the
University of Kentucky at 859-257-9428 or toll free at 1-866-400-9428. We will give
you a signed copy of this consent form to take with you.

___________________________________________________________________________
Signature of person agreeing to take part in the study          Date

___________________________________________________________________________
Printed name of person agreeing to take part in the study

___________________________________________________________________________
Name of [authorized] person obtaining informed consent          Date
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Chapter 4: Employability of Associate Degree Graduates

Introduction

The uniquely American creation of the community college has evolved over time to meet the needs of students through transfer and vocational programs and the needs of businesses through providing a competent, skilled workforce. The comprehensive community college, as it is often referred to today, attempts to meet both potential student and business needs (Kasper, 2002). This egalitarian purpose for students and economic purpose for businesses lead some to believe community colleges suffer from mission drift (Clowes & Levin, 1989) and serve no one by attempting to serve both transfer and vocational students. Community colleges are known for two primary missions, collegiate programs designed for students desiring transfer to a four-year institution for baccalaureate completion, and vocational or technical programs for students wanting to directly enter the workforce (Cohen & Brawer, 2008; Dougherty, 2001; Brint & Karabel, 1989). Liberal arts’ graduates can earn a transfer degree, associate in arts (A.A.) or associate in science (A.S.) for transfer to a four-year institution, while vocational graduates can earn a terminal associate degree, associate in applied science (A.A.S.), for direct employment into the workforce.

This problem of practice essay explores a rationale for existing negative transfer practices discovered by Phillips (2011) at four Appalachian community colleges. Community college faculty, staff, and leaders included in the Phillips research study provided evidence that negative transfer practices were a normal behavior in response to their perceptions and interpretations of local and system missions regarding transfer and employability of graduates. This problem of practice seeks to provide economic
evidence of employability for community college graduates as well as salary and wage data for students moving directly into the workforce. Negative transfer practices toward transfer students were demonstrated at the four Appalachian community colleges. These negative transfer practices are built on the some key perceptions revealed during participant interviews. Community college faculty, staff, and leaders reported perceptions that transfer students, typically, do not successfully transfer. Even the most successfully transfer students completing the community college transfer degree had a transfer rate of less than half, 48% (Decker et al., 2011). If students complete the transfer degree and do not successfully transfer, then these students end up with an associate degree with little or no economic value as perceived by interview participants.

For many community college students in Appalachia, technical or vocational programs are perceived by community colleges (Phillips, 2011) to be better accommodating degrees given that most students are not able and/or willing to leave the region. Due to the limited employment opportunities in Appalachia for baccalaureate or liberal arts degrees, technical or vocational education provide the best possible opportunities for students to gain employment while not having to leave the Appalachia region. Obviously, some community college students successfully transfer and leave the Appalachian region, but perceptions seem to indicate that a majority of students do not want to leave the region and desire a community college experience that promotes employable technical skills in the region. Therefore, interview participants perceived that technical or vocational degrees have higher economic value because they better meet the economic needs of students and a higher intrinsic value to meet personal demands of place-bound students.
How employable are these graduates with differing types of degrees in Appalachia? What skills and training do community college students take away from such programs? Is transfer the only option for associate of arts or science degree graduates? Do employers distinguish between differing types of associate degrees from community colleges? The tension between community college transfer and vocational missions and the various types of degrees has been waged in the literature for decades and virtually consumed the entirety of the debate surrounding community college mission and purpose (Cohen & Brawer, 2008; Dougherty, 2001; Brint & Karabel, 1989; Gleazer, 1980; Zwerling, 1976). Does it matter to an employer if workers earn an associate degree at all or what type? Are students directly employable with the skills and training received? These questions are paramount in the minds of interview participants from Phillips (2011) research study that serves as the backdrop for this problem of practice.

**History and Mission of Community Colleges**

The community college mission since its founding has struggled with competing missions between stakeholders of students, businesses, governments, and the public. Transfer and vocational programs have historically been consummate enemies that engage in a continual war to weed itself from the other. Transfer programs were the primary mission of the community college at its founding (Townsend & Wilson, 2006). Koos (1924) found that the early community college offered about three-fourths of its courses in transfer or liberal arts. This collegiate function of the community college best paralleled the four-year institution making the community college viable, scholarly and credible to parents, state governments and students. This function is served at the community college with the awarding of the transfer degree known as the associate in
arts (A.A.) or science (A.S.) degrees. The vocational or technical mission gained strength
during the Great Depression, but the 1970s provided the real impetus for changing the
community college mission toward vocational or technical programs. The
vocationalization of community colleges was achieved out of necessity for meeting
economic demands, technology and globalization. This change in mission and direction
of community colleges was fostered by government policymakers, student demands and
business interests (Dougherty, 2001).

Technology and business demands require continual change, updating and even
abolishing programs to keep up with current trends and developments in the global
economy. This places the vocational mission in a constant flux and makes long-term
planning and assessment difficult. In addition, the hiring of faculty and staff for specific
technical jobs or training may be short-term and does not allow for faculty job security or
stability within programs. Culturally, some may view vocational or technical programs
as less important and less credible than transfer programs in liberal arts. Another
important development is the creation of short-term certificates and diplomas to signify
specific, job related training (Kasper, 2002). This new form of credentialing is very
different from the traditional employment path toward the baccalaureate degree. A
comprehensive community college must integrate vocational approaches to meet the
innovative demands of the constantly changing economy (Kasper, 2002). Community
college curricula are increasingly dominated by occupational courses and programs and
directly toward non-academic and off-campus clientele (Clowes & Levin, 1989).

Community colleges have differed in their approach to their missions and some
have argued for a narrowing of the scope. Brint and Karabel (1989) and Dougherty
(2001) have proposed cutting back on the vocational mission to give more attention to transfer, while Clowes and Levin (1989) have argued the opposite. Kasper (2002) essentially argues for the comprehensive community college to meet the demands of students, businesses, and four-year institutions. To this end, community colleges have integrated other important missions over the past few decades such as developmental education, workforce training, adult education, personal enrichment and continuing education. These additional missions represent more strategic efforts to make community college students employable when they graduate or otherwise leave the community college.

Workforce development, continuing education, and direct employability are now considered integral aspects of the community college mission. Continuing education covers the general areas of workforce training, adult education, personal enrichment and community outreach (Downey, Pusser & Turner, 2006). Workforce development can be vocational or technical that prepares students directly for work, but also worker training and retraining for existing workers in the labor force. Business interest often have a stake in community college functioning and partner to receive access and specialized training for their workers. If the state and community college can shoulder the burden of training and preparing existing workers for industry, why should businesses waste their resources upon workforce training?

Both vertical and horizontal training opportunities exist from most community colleges to either meet business needs or adjust to changing dynamics for business (Jacobs & Dougherty, 2006). Workforce training is more than vocational programs being offered, but the cooperation and collusion of the community college mission with
business interests (Kane & Rouse, 1999; Brewer & Gray, 1999). Given certain cases of close financial business contributions to the community college, community workforce needs are often met through business-community college collaboration. Substantial pressures exist from vocationalism for educational institutions to mirror the labor market within fields of business, engineering, education, and agriculture (Grubb, 2006). These degree programs are applied in nature and typically are described as associate in applied science (A.A.S.) degrees.

Some key policies to enhance technical-vocational programs include the Reemployment Act of 1994 to encourage displaced adults to enroll in long-term training programs by extending unemployment insurance. Three-fourths of community college students report studying in a vocational area and three-fourths of all associates degrees are vocational (Osterman & Batt, 1993). This technical-vocational emphasis of community colleges makes them natural subcontractors for government-sponsored retraining programs (Leigh & Gill, 1997). In the late 1980s the Nationwide Commission on the Future of Community Colleges recommended that community colleges create partnerships with employers and make facilitates available for workforce training through supplying vocational training with terminal certificates and contract retraining (Kasper, 2002). All of these practices have been realized in the past twenty years representing another push toward employability as a key mission of community college.

Economic realities and labor market conditions are paramount to the functioning of community colleges and the missions they implement to foster successful student achievement. Students make rational choices about what type, what brand, what delivery mode, and so on. Therefore, when vocational education supersedes transfer offerings it is
the will of the consumer, the student in this case. No amount of teacher pleading or
counselor advising can influence or alter the will of the consumer or student. “The goals
of community college education and training shifted in the 1990s to vocations, either by
preparing students for work and further education or by programming options and the
curricular emphasis upon ‘new economy skills’, ‘employability skills’, and ‘applied
skills’, in the words of government documents and organizational members of colleges”
(Levin, 2000). Labor market returns is a key measure that drives student behavior and
vocational or technical education is proven to be a profitable investment for many
community college students (Shaw & Rab, 2003; Kane & Rouse, 1999). Vocational
graduates have positive earning potential compare to four-year students that did not
graduate. The general increase in income earnings resulting from a community college
two-year technical degree are positive 8-10% (Gill & Leigh, 2003).

Recommendations to further strengthen the technical-vocational mission include
governments and institutions to foster broader forms of vocationalism, preparing
individuals for the long run in a complex a turbulent economy (Grubb, 2006). The
mission of the community college has had less emphasis on education and more on
training, less emphasis upon community social needs and more on the economic needs of
business and industry, less upon the individual development and more on workforce
preparation and training. The mission of the community college by the end of the
twentieth century was more suited to the rhetoric of the global economy and to its
demands (Levin, 2000). Community colleges have become globalized institutions with
focus upon the global economy and workforce development through technical-vocational
training and programs. Clowes and Levin (1989) believed the only viable option for
community colleges in the future is career education led by employable technical-vocational programs.

Types of Kentucky Community College Associate Degrees

Kentucky community colleges, whether under the University of Kentucky from 1964 to 1998 or the Kentucky Community College and Technical System from 1998 to the present, has allowed students to earn two differing types of associate degrees: the transfer degree known as the associate in arts (A.A.) or the associate in science (A.S.) and the technical-vocational degree known as the associate in applied science (A.A.S.). The difference in these two degrees is that the associate in arts (A.A.) transfer track is for student majoring in humanities, fine arts, or social sciences, whereas the associate in science (A.S.) transfer track is for physical sciences and mathematics. Associate in science (A.S.) degree graduates end up taking 6 more credit hours in physical sciences or mathematics in lieu of heritage, humanities, or social interaction credit hours. The transfer degrees are for students transferring to a four-year institution in liberal arts fields matriculating toward the baccalaureate degree. The technical-vocational degrees are for students desiring direct entry into the workforce. The KCTCS Catalog (2011-2012) describes these two degrees as follows:

KCTCS colleges offer AA, AS degree programs which allow students to tailor and complete a general course of study to meet their interests and to fulfill the general education requirements of the first two years of bachelor degree programs; AAS occupational/technical degree programs to meet workforce development needs and may be transferrable to bachelor degree.

Transfer Degrees (Associate in Art or Science)

According to Dougherty (1994), a Florida survey in 1998 indicated that only 20 percent of student at community colleges majoring in academic subjects transferred to a
four-year institution. An Illinois survey in 1995 found that successful transfer rates for academic majors was around 35 percent. Grubb (1991) found that 49 percent of community college students graduating with an academic associate degree transfer successfully. In a recent community college research study, Decker, Dykes, Phillips, and Preston (2011) found that only 48 percent of transfer associate degree graduates from four Appalachian community colleges successfully transferred to a four-year institution. This evidence reveals that less than half of transfer degree graduates successfully transfer, so what happens to the other half? They enter the workforce, but without direct vocational training.

According to the NCES Digest in 1998, community colleges awarded 555,538 total associate degrees, 42 percent or 233,325 were in liberal arts or general studies (Cohen & Brawer, 2008). By 2005, the NCES Digest reported that 341,363 associate degrees in liberal arts or general studies were conferred, 49 percent of the total associate degrees awarded (Cohen & Brawer, 2008). Less than half of these graduates successfully transfer (Grubb, 1991), so these students directly enter the workforce. Over one-hundred thousand community college graduates are earning transfer associate degrees to gain direct employability skills and training annually. The system mission in Kentucky is described to improve the employability and quality of life of Kentucky citizens as the primary provider of college and workforce readiness, transfer education, and workforce education and training. Kentucky community college students in the transfer education category that do not successfully transfer are indeed workforce ready and directly employable by business demands, although not specifically through a technical program, but by general liberal arts academic training.
Dougherty (2001) identified general education or liberal arts programs that lead to the transfer associate degree as having six critical dimensions that employers may find desirable by a trained and educated workforce. These six include the following: heritage through providing a common core of ideas and passing on Western heritage; counterpoint by exposing students to subjects outside their majors; instrumental skill development through applied writing, speaking, critical thinking, computer skills, and problem solving; empowerment by developing the whole learner and the capacity to be a lifelong learner; social agenda by developing social purposes such as global awareness and environmentalism; and valuing the learning process to perceive values operating in different situations and how values are determined (Dougherty, 2001). These six traits of a liberal arts graduate from a community college appear to be extremely valuable as workforce readiness tools and employable skills that employers should desire in a competent, skilled worker.

In 2001, the Accrediting Commission for Community and Junior Colleges in California set comprehensive objectives for general education programs. These include the following: introduction to the content and methodology in humanities and fine arts, natural sciences, and social sciences; capability to become productive workers and lifelong learners by developing skills including oral and written communication, scientific and quantitative reasoning, critical analysis and logical thinking, acquisition of knowledge, computer literacy, and ability to work with other collaboratively; ability to become ethical human beings and effective citizens with qualities including respect for others, interpersonal skills, and civility; appreciation for aesthetics, cultural diversity, ethical principles, creativity, historical perspective, and willingness to assume civic,
political, and social responsibilities. These objectives for liberal arts graduates at community colleges seem to prepare students for direct employment and appear as great assets that workers could bring into the workforce.

Community colleges have failed to recognize the inherent employability of liberal arts graduates in the global economy and how the dimensions and objectives of a general liberal arts education listed above provides quality, skilled potential workers that are uniquely employable. Employers do not seem to separate types of associates degrees for general entry level jobs that are not specifically technical in nature. Technical degrees and technical programs are perceived to be better suited for Appalachian community college students as reported by negative transfer practices at Appalachian community colleges in the study. According to payscale.com a graduate with a liberal arts associate degree earn an hourly wage between $10 and $16 an hour based on location, although rural, Appalachian wages can reasonably be expected to be on the lower end. The following assessment of liberal arts or transfer degrees is summarized in the following:

An associate of liberal arts degree provides students with the skills to succeed in any career that they choose to undertake. A liberal arts degree is good educational preparation for entering a number of professional careers or enrolling in a more advanced degree program. The value of this degree comes from the skills learnt, which never grow obsolete. A liberal arts associate degree does not prepare the graduate to work in any one specific career or industry. Graduates of a liberal arts program may work for government, businesses; institutions of education, social sciences, for profit or nonprofit organizations. Therefore, the job outlook for liberal arts graduates is quite good (http://diplomaguide.com/articles/Liberal_Arts_Associate_Degree.html).

Leigh and Gill (1996) reported associate in arts degree recipients the economic payoff from community college education is positive and raises earnings. Adamson and Hooda (2008) reported that associate of arts (A.A.) graduates earn about 16 to 19 percent
more than high-school educated workers. The Miami Herald (2011) reported findings that in Florida community college graduates with an associate in arts or liberal arts degree earned on average $31,836. The Bureau of Labor Statistics from 2009 reported weekly earnings of associate degree holders of $761, while high school graduates earned $626 about a $7000 difference in yearly salary and associate degree holders also had lower rates of unemployment. These findings either indicate that interview participants are mistaken about technical degrees being superior to transfer degrees for direct employment and potential salaries or Appalachia is uniquely different in economic opportunities and salary potential for transfer associate degree graduates as compared to other areas of the United States.

**Vocational-Technical Degrees (Associate in Applied Science)**

Brint and Karabel (1989) and Dougherty (2001) have provided in-depth analyses of how and why community colleges are moving away from transfer toward vocational and technical programs. Zwerling (1976) and Gleazer (1980) have argued that community colleges should stop resisting the vocational movement and accept their role as a workforce development training center and stop trying to emulate four-year institutions. Early founders of the junior college movement such as George Zook (1922), Leonard Koos (1924), Walter Crosby Eells (1931), and Doak Campbell (1932) also realized the important occupational function that junior colleges would play in the future. Many terms have been use to describe programs for direct employment including terminal, vocational, technical, semiprofessional, occupational, and career education (Brint & Karabel, 1989). Kentucky community colleges award the associate in applied science to fields that fit this definition of direct employability after graduation.
Vocational degrees as a percentage of total graduates were reported as 58% in 1998 by the NCES Digest and 51% in 2005. A measure of associate degree graduates by community colleges placed vocational and technical degree graduates in the mid-fifty percent to mid-sixty percent range for the past few decades (Cohen & Brawer, 2008). This reflects the overall shift since the 1970s of the community college mission toward vocational and technical training (Dougherty, 2001; Clowes & Levin, 1989). As mentioned earlier, the Kentucky Community and Technical College System mission statement (2011) is to improve the employability and quality of Kentucky citizens as the primary provider of college and workforce readiness, transfer education, and workforce education and training. Clearly, workforce training through vocational and technical programs is paramount to KCTCS, the Commonwealth of Kentucky, and local community economic development.

The KCTCS catalog (2011) details a guarantee to employers of graduates regarding quality of programs and expertise of graduates.

The KCTCS colleges guarantee employers that graduates have demonstrated competence in the skills listed on the approved task lists that represent industry validated specifications for each occupational program. Should a former student be considered by the employer to be performing below a satisfactory level on any skill on the approved task list, the colleges agree to provide specific retraining at no charge to the employee or employer. This guarantee extends for two years from the date of graduation.

This guarantee applies to all college graduates of occupational/technical programs who are employed in their field of training. The program enhances economic development efforts by guaranteeing Kentucky’s businesses and industries access to a skilled workforce.

This guarantee statement shows the level of dedication to local community and business training demands. KCTCS views its role in regional and economic development as the
provider of occupational and technical training for communities and therefore the Commonwealth.

KCTCS offers approximately eighty separate and distinctive programs leading to the associate in applied science and hundreds of differing associate in applied science degree options, certificates, and diplomas in specific technical areas. Some of the most popular technical associate in applied science programs includes the following: automotive technology, aviation maintenance technology, business administration systems, medical information technology, clinical laboratory technician, criminal justice, dental hygiene technology, diesel technology, engineering and electronics technology, human services, interdisciplinary early childhood education, machine tool technology, pharmacy technology, nursing, radiography, surgical technology, and welding technology. Appalachian job opportunities seem to be more comparable with these types of technical and vocational industries as opposed to general workforce skills provided by the transfer associate degree.

According to www.campusexplorer.com and www.associatecollege.com the highest paid technical associate degrees include radiation therapists ($74,200); dental hygienists ($67,400), registered nurses ($63,800), engineering technicians ($57,500), avionics technicians ($50,500), and aircraft service technicians ($52,800). The fastest growing technical fields that require associate degrees in applied sciences include nursing, computer support specialists, automotive technicians, heating and air conditioning technicians, and administrative assistants. Crosby (2003) refers to several growing areas that students can be career ready by completing the associate in applied science such as agriculture, art and design, construction, drafting, law enforcement and
safety, legal, social work, and veterinary technology. Crosby (2003) emphasized that employers prefer to hire workers with associate degrees and receiving the degree can increase the amount of responsibility workers have in an occupation as well as raising median weekly earnings by 25 percent over high school graduates and 10 percent over those with only some college and no degree. In terms of salaries and wages, technical degrees appear to provide bridges to better salaries and wages than the transfer associate degree in Appalachia. This outcome supports and reinforces the general perceptions of interview participants in Phillips (2011) research study that demonstrates largely negative student engagement concerning community college student transfer in Appalachia.

**Conclusion**

Kentucky community college associate degrees, whether liberal arts degrees intended for transfer or technical degrees for vocational training, are bridges to technical and applied skills and worker employability after graduation. Both types of degrees increase earnings and job opportunities over high school graduates or those workers with only some college, but no earned degree. KCTCS is dedicated to providing quality education and accessibility to Kentuckians by offering quality programs and courses that meet the demands of local and regional economies. Whether students are graduates from high school, displaced by industry relocations, looking for a new career, or upgrading work skills and training KCTCS offers the programs and courses to meet those needs. While transfer students may initially plan on transferring to a four-year institution, circumstances often force transfer students directly into the workforce and a transfer associate degree from a Kentucky community college provides excellent training and skills for workers entering the workforce directly. The hundreds of technical degrees
offered by KCTCS meet specific requirements and desires of industry for workers to be work ready by the training received at a Kentucky community college.

KCTCS provides opportunities and key advantages for students to earn associate degrees and move directly into the workforce, thereby, improving their standards of living helping foster a better economy for Kentucky, the United States, and the world. Appalachian community college faculty, staff, and leaders perceptions that transfer associate degrees are of little economic value, when students do not successfully transfer, is not accurate as many community college students directly enter the workforce with valuable skills and training. Although technical degree opportunities are often more abundant in Appalachia and typically pay more than earning the transfer associate degree, thereby showing support for negative transfer practices implemented at Appalachian community colleges.
References


Crosby, O. (2003). Associate degree: Two years to a career or a jump start to a bachelor’s degree. *Occupational Outlook Quarterly, winter, 2003*.


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Chapter 5: Conclusion

Many great insights were garnered during the process of completing a companion study. Working with three other people on a common research topic allows one to view the topic from various perspectives and to better understand the dynamics at play. Discussions of results and findings were invaluable during this process. What follows are the four general themes that resulted from these discussions.

First, our group soon realized that general mandates, be they state or national, will not benefit an area unless local needs, dynamics, and trends are addressed and incorporated. Each college in the Kentucky Community and Technical College System is unique, and that is exactly what makes our system so special. Even colleges in the Appalachian region that were included in this study have unique characteristics in addition to the numerous similarities. While the Double the Numbers mandate seeks to increase the number of baccalaureate degree holders, this may not come to fruition in the areas included in this study unless programs are brought to the area that are tied to the local labor markets.

Each of the colleges in this study confers more technical than transfer degrees. This might be largely a result of local labor markets; students often earn higher wages after earning a technical or vocational degree or diploma than a transfer degree. Further, many of the baccalaureate programs offered in these areas are in disciplines that have little local demand or that pay very little. Essentially, the job market in these fields have been saturated by the large number of students who enter these programs for the sole purpose of the ability to earn a four-year degree while not leaving the area. In order to benefit the national completion agenda and Double the Numbers mandate while
simultaneously benefiting students and local economies, these baccalaureate programs should be tied to the technical disciplines that are thriving in these areas.

Second, the group realized that it is crucial to determine what specific characteristics about baccalaureate programs for location-bound students promote persistence once a student has transferred. Are there institutional agendas and political undercurrents that may promote or hinder student success? In most instances, a culmination of characteristics affects persistence.

Third, we learned that the responsibility of transfer planning should be shared throughout the entire college community: faculty, both full-time and adjunct; staff; and administration. The transfer mission should be integrated into the college culture and climate in such a way that students should consider the transfer option the first time they step foot onto campus until graduation. An important aspect of the transfer planning responsibility includes open communication throughout both the system and the individual college. Everyone needs access to up-to-date information regarding check sheets, articulation agreements, transfer scholarships, etc. A breakdown in this communication results in decreased numbers of transfer students.

Lastly, we learned that it is difficult to carry out a study of this scope among four people with different personalities, backgrounds, and strengths that live substantial distances from one another. Planning four unique individual studies that fit within the framework of a general theme, synthesizing results, and creating a final product was more difficult than we initially imagined. However, the benefits of conducting this research collaboratively immensely outweigh any difficulties encountered along the way.
In the end, we felt that our research was better for having completed a companion study and that we covered the topic with a breadth that could not have been achieved otherwise.

This research project has demonstrated that multiple factors are involved when discussing community college transfer success. Institutions, faculty, and staff are key components that aid student transfer success. Community college practices of advising and institutional partnership are other key components that promote or block student transfer success. The general assumption that transfer success is in general the best option for student economic and social success is greatly questioned by the empirical evidence collected in this study. Participant interviews at four Appalachian community colleges provided perceptions that community college practices regarding transfer do not typically result in transfer success. These negative practices were the result of the ways community colleges formed their sense-making of college mission and students defined interests and aspirations.

Economic data was also collected to compare and contrast the economic realities of earning an associate degree at the community college. Since transfer evidence collected in this project and generally found across community college literature finds that most transfer student do not transfer successfully, this research project provides an economic rationale that is supported by community college sense-making of mission and Appalachian student demands. Appalachian community college students while desiring transfer are generally not willing to leave the Appalachian region and are better served by technical programs or baccalaureate programs offered on the community college campuses in the region. Appalachian community colleges have a mission is to serve student needs and no longer can the sole student success measure be transfer success or
failure, as regional economic demands necessitate employment as the dominate goal and purpose of higher education in Appalachia Kentucky.
Appendices

Appendix A

Regression 1: Total Cumulative Hours Regressed Against Successful Transfer

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% CI Lower</th>
<th>95% CI Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.248188</td>
<td>0.669033</td>
<td>-0.37</td>
<td>0.711</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.216216</td>
<td>0.240534</td>
<td>-0.90</td>
<td>0.369</td>
<td>0.81</td>
<td>0.50</td>
<td>1.29</td>
</tr>
<tr>
<td>Race</td>
<td>-0.612150</td>
<td>0.617349</td>
<td>-0.99</td>
<td>0.321</td>
<td>0.54</td>
<td>0.16</td>
<td>1.82</td>
</tr>
<tr>
<td>Age</td>
<td>0.099731</td>
<td>0.231846</td>
<td>0.43</td>
<td>0.667</td>
<td>1.10</td>
<td>0.70</td>
<td>1.74</td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.383949</td>
<td>0.224644</td>
<td>1.71</td>
<td>0.087</td>
<td>1.47</td>
<td>0.95</td>
<td>2.28</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.875647</td>
<td>0.266043</td>
<td>3.29</td>
<td>0.001</td>
<td>2.40</td>
<td>1.43</td>
<td>4.04</td>
</tr>
</tbody>
</table>

The regression analysis of the 338 students from the spring/summer 2009 graduates with the transfer associate degree; Associate in Arts or Associate in Science, provided evidence for one highly significant variable and one weakly significant variable associated with student transfer. Gender, race, age each were statistically insignificant variables related to transfer. Cumulative grade point average is classified as a dichotomous variable with 1 signaling grade point average greater than or equal to 3.25 upon graduation and zero for grade point average below 3.25. Cumulative grade point average was weakly significant at the 10% significance level with a p-value of 0.087. Total cumulative hours earned upon graduation was also a dichotomous variable for 1 signaling earned credit hours below 90 and zero for credit hours earned greater than or equal to 90 upon graduation. Total cumulative hours were found to be highly significant at the 1% significance level with a p-value of 0.001.
Regression 2: Total Cumulative Hours Regressed Against Successful Persistence

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% Lower CI</th>
<th>95% Upper CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.169086</td>
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<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.085996</td>
<td>0.251556</td>
<td>-0.34</td>
<td>0.732</td>
<td>0.92</td>
<td>0.56</td>
<td>1.50</td>
</tr>
<tr>
<td>Race</td>
<td>-1.203635</td>
<td>0.615143</td>
<td>-1.96</td>
<td>0.050</td>
<td>0.30</td>
<td>0.09</td>
<td>1.00</td>
</tr>
<tr>
<td>Age</td>
<td>-0.080316</td>
<td>0.243019</td>
<td>-0.33</td>
<td>0.741</td>
<td>0.92</td>
<td>0.57</td>
<td>1.49</td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.388863</td>
<td>0.236398</td>
<td>1.64</td>
<td>0.100</td>
<td>1.48</td>
<td>0.93</td>
<td>2.34</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.739097</td>
<td>0.292122</td>
<td>2.53</td>
<td>0.011</td>
<td>2.09</td>
<td>1.18</td>
<td>3.71</td>
</tr>
</tbody>
</table>

The regression analysis of the 338 students from the spring/summer 2009 graduates with the transfer associate degree; Associate in Arts or Associate in Science, provided evidence for one highly significant variable and one weakly significant variable associated with student persistence. Gender, race, age each were statistically insignificant variables related to persistence. Cumulative grade point average is classified as a dichotomous variable with 1 signaling grade point average greater than or equal to 3.25 upon graduation and zero for grade point average below 3.25. Cumulative grade point average was weakly significant at the 10% significance level with a p-value of 0.10. Total cumulative hours earned upon graduation was also a dichotomous variable for 1 signaling earned credit hours below 90 and zero for credit hours earned greater than or equal to 90 upon graduation. Total cumulative hours were found to be significant at just over the 1% significance level with a p-value of 0.011.
These four Appalachian community colleges each have similar descriptive statistics regarding gender, race, and age. Results indicate that grade point average is weakly significant, while cumulative credit hours earned are highly significant. Higher grade point average leads to more transfer success and better persistence, while fewer than 90 credit hours earned leads to more transfer success and better persistence. In addition, by running four separate regressions omitting one of the four community colleges in each regression, results indicated that colleges 1 and 2 were high impact and colleges 3 and 4 were low impact relative to each other. Table 2.6 shows that when omitting college 4, colleges 1 and 2 are statistically similar as noted by their statistically significant p-values with college 3 having a p-value that is statistically insignificant.

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
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<th>95% Upper</th>
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<td>0.646098</td>
<td>-1.16</td>
<td>0.251</td>
<td>0.251057</td>
<td>0.646098</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.185278</td>
<td>0.243253</td>
<td>0.76</td>
<td>0.464</td>
<td>0.754</td>
<td>1.20</td>
<td>1.94</td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.226335</td>
<td>0.235306</td>
<td>0.96</td>
<td>0.336</td>
<td>0.336</td>
<td>1.25</td>
<td>1.99</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.801860</td>
<td>0.283926</td>
<td>2.82</td>
<td>0.005</td>
<td>2.23</td>
<td>1.28</td>
<td>3.89</td>
</tr>
<tr>
<td>College 1</td>
<td>1.104820</td>
<td>0.343546</td>
<td>3.22</td>
<td>0.001</td>
<td>3.02</td>
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<td>5.92</td>
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<tr>
<td>College 2</td>
<td>1.166580</td>
<td>0.325241</td>
<td>3.59</td>
<td>0.000</td>
<td>3.21</td>
<td>1.70</td>
<td>6.07</td>
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<tr>
<td>College 3</td>
<td>0.350170</td>
<td>0.313494</td>
<td>1.12</td>
<td>0.264</td>
<td>1.42</td>
<td>0.77</td>
<td>2.62</td>
</tr>
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**Regression 4: Colleges 1 & 2 with College 3 Omitted**

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
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<td>-0.31</td>
<td>0.754</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
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<td>0.75</td>
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<td>Cum. GPA</td>
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<td>0.235306</td>
<td>0.96</td>
<td>0.336</td>
<td>1.25</td>
<td>0.79</td>
<td>1.99</td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.801860</td>
<td>0.283926</td>
<td>2.82</td>
<td>0.005</td>
<td>2.23</td>
<td>1.28</td>
<td>3.89</td>
</tr>
<tr>
<td>College 1</td>
<td>0.754649</td>
<td>0.370587</td>
<td>2.04</td>
<td>0.042</td>
<td>2.13</td>
<td>1.03</td>
<td>4.40</td>
</tr>
<tr>
<td>College 2</td>
<td>0.816406</td>
<td>0.348687</td>
<td>2.34</td>
<td>0.019</td>
<td>2.26</td>
<td>1.14</td>
<td>4.48</td>
</tr>
<tr>
<td>College 4</td>
<td>-0.350170</td>
<td>0.313494</td>
<td>-1.12</td>
<td>0.264</td>
<td>0.70</td>
<td>0.38</td>
<td>1.30</td>
</tr>
</tbody>
</table>

These four Appalachian community colleges each have similar descriptive statistics regarding gender, race, and age. Results indicate that grade point average is weakly significant, while cumulative credit hours earned are highly significant. Higher grade point average leads to more transfer success and better persistence, while fewer than 90 credit hours earned leads to more transfer success and better persistence. In addition, by running four separate regressions omitting one of the four community colleges in each regression, results indicated that colleges 1 and 2 were high impact and colleges 3 and 4 were low impact relative to each other. Table 2.7 shows that when omitting college 3, colleges 1 and 2 are statistically similar as noted by their statistically significant p-values with college 4 having a p-value that is statistically insignificant.
Regression 5: Colleges 3 & 4 with College 2 Omitted

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio 95% CI Lower</th>
<th>95% CI Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.517746</td>
<td>0.741134</td>
<td>0.70</td>
<td>0.485</td>
<td>0.92 0.57 1.52</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.078571</td>
<td>0.251057</td>
<td>-0.31</td>
<td>0.754</td>
<td>0.92 0.57 1.52</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>-0.751337</td>
<td>0.646098</td>
<td>-1.16</td>
<td>0.245</td>
<td>0.47 0.13 1.67</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.185278</td>
<td>0.243253</td>
<td>0.76</td>
<td>0.446</td>
<td>1.20 0.75 1.94</td>
<td></td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.226335</td>
<td>0.235306</td>
<td>0.96</td>
<td>0.336</td>
<td>1.25 0.79 1.99</td>
<td></td>
</tr>
<tr>
<td>Tot. Cum. Hours</td>
<td>0.801860</td>
<td>0.283926</td>
<td>2.82</td>
<td>0.005</td>
<td>2.23 1.28 3.89</td>
<td></td>
</tr>
<tr>
<td>College 1</td>
<td>-0.061757</td>
<td>0.382342</td>
<td>-0.16</td>
<td>0.872</td>
<td>0.94 0.44 1.99</td>
<td></td>
</tr>
<tr>
<td>College 3</td>
<td>-0.816406</td>
<td>0.348687</td>
<td>-2.34</td>
<td>0.019</td>
<td>0.44 0.22 0.88</td>
<td></td>
</tr>
<tr>
<td>College 4</td>
<td>-1.166580</td>
<td>0.325241</td>
<td>-3.59</td>
<td>0.000</td>
<td>0.31 0.16 0.59</td>
<td></td>
</tr>
</tbody>
</table>

These four Appalachian community colleges each have similar descriptive statistics regarding gender, race, and age. Results indicate that grade point average is weakly significant, while cumulative credit hours earned are highly significant. Higher grade point average leads to more transfer success and better persistence, while fewer than 90 credit hours earned leads to more transfer success and better persistence. In addition, by running four separate regressions omitting one of the four community colleges in each regression, results indicated that colleges 1 and 2 were high impact and colleges 3 and 4 were low impact relative to each other. Table 2.8 shows that when omitting college 2, colleges 3 and 4 are statistically similar as noted by their statistically significant p-values with college 1 having a p-value that is statistically insignificant.
These four Appalachian community colleges each have similar descriptive statistics regarding gender, race, and age. Results indicate that grade point average is weakly significant, while cumulative credit hours earned are highly significant. Higher grade point average leads to more transfer success and better persistence, while fewer than 90 credit hours earned leads to more transfer success and better persistence. In addition, by running four separate regressions omitting one of the four community colleges in each regression, results indicated that colleges 1 and 2 were high impact and colleges 3 and 4 were low impact relative to each other. Table 2.9 shows that when omitting college 1, colleges 3 and 4 are statistically similar as noted by their statistically significant p-values with college 2 having a p-value that is statistically insignificant.
MSQCS Research Questions and Data Analysis

Mattering Perception among the Community Colleges

Research Question #1 stated: Was mattering perception statistically significant among the three community colleges? An ANOVA found that there were no significant differences between the three community colleges on any subscale. The first table shows the mean scores on the five MSQCS subscales among the two-year institutions. The second table shows the ANOVA Table for MSQCS means among the two-year institutions.

MSQCS Subscale Means by Institution

<table>
<thead>
<tr>
<th>MSQCS Subscale</th>
<th>High Impact A</th>
<th>Low Impact A</th>
<th>Low Impact B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration Subscale</td>
<td>Mean 38.84</td>
<td>42.04</td>
<td>40.89</td>
</tr>
<tr>
<td></td>
<td>SD 7.669</td>
<td>6.811</td>
<td>4.719</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 1.759</td>
<td>1.390</td>
<td>.776</td>
</tr>
<tr>
<td></td>
<td>Variance 58.807</td>
<td>46.389</td>
<td>22.266</td>
</tr>
<tr>
<td>Advising Subscale</td>
<td>Mean 31.32</td>
<td>33.29</td>
<td>32.46</td>
</tr>
<tr>
<td></td>
<td>SD 5.803</td>
<td>4.592</td>
<td>3.783</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 1.331</td>
<td>.937</td>
<td>.622</td>
</tr>
<tr>
<td></td>
<td>Variance 33.673</td>
<td>21.085</td>
<td>14.311</td>
</tr>
<tr>
<td>Peers Subscale</td>
<td>Mean 43.53</td>
<td>45.58</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>SD 6.703</td>
<td>7.027</td>
<td>4.416</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 1.538</td>
<td>1.434</td>
<td>.726</td>
</tr>
<tr>
<td></td>
<td>Variance 44.930</td>
<td>49.384</td>
<td>19.500</td>
</tr>
<tr>
<td>Multiple Roles Subscale</td>
<td>Mean 26.63</td>
<td>27.17</td>
<td>26.97</td>
</tr>
<tr>
<td></td>
<td>SD 5.166</td>
<td>4.517</td>
<td>3.296</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 1.185</td>
<td>.922</td>
<td>.542</td>
</tr>
<tr>
<td></td>
<td>Variance 26.690</td>
<td>20.406</td>
<td>10.860</td>
</tr>
<tr>
<td>Faculty Subscale</td>
<td>Mean 30.74</td>
<td>32.96</td>
<td>32.11</td>
</tr>
<tr>
<td></td>
<td>SD 4.039</td>
<td>4.930</td>
<td>3.373</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean 9.27</td>
<td>1.006</td>
<td>.555</td>
</tr>
<tr>
<td></td>
<td>Variance 16.316</td>
<td>24.303</td>
<td>11.377</td>
</tr>
</tbody>
</table>
### ANOVA Table for MSQCS Subscale Means among Community Colleges

<table>
<thead>
<tr>
<th>MSQCS Subscale</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration Subscale</td>
<td>Between Groups (Combined) 109.948</td>
<td>2 54.974</td>
<td>1.446</td>
<td>.242</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within Groups 2927.052</td>
<td>77 38.014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 3037.000</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advising Subscale</td>
<td>Between Groups (Combined) 41.435</td>
<td>2 20.717</td>
<td>.993</td>
<td>.375</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within Groups 1606.253</td>
<td>77 20.860</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 1647.687</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peers Subscale</td>
<td>Between Groups (Combined) 46.980</td>
<td>2 23.490</td>
<td>.683</td>
<td>.508</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within Groups 2646.570</td>
<td>77 34.371</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 2693.550</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Roles Subscale</td>
<td>Between Groups (Combined) 3.073</td>
<td>2 1.563</td>
<td>.088</td>
<td>.916</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within Groups 1340.727</td>
<td>77 17.412</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 1343.800</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Subscale</td>
<td>Between Groups (Combined) 52.677</td>
<td>2 26.339</td>
<td>1.607</td>
<td>.207</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Within Groups 1262.210</td>
<td>77 16.392</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 1314.887</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Predictors of Transfer Persistence

Research question #2 stated: Does mattering perception influence transfer persistence when student characteristics of gender, marital status, enrollment status, work status, age, number of dependents, developmental course completion, first generation status, low-income status, extracurricular participation, and Student Support Services (TRIO) participation status are controlled? A logistic multiple regression was utilized using the above variables as predictors and transfer persistence as the criterion at levels of significance of .01, .05, and .10. The significant predictors, listed in order from most to least significant, are: (1) MSQCS Faculty Subscale, (2) MSQCS Multiple Roles Subscale, and (3) first-generation status (table below).
### Predictors of Transfer Persistence

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Coef</th>
<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
<th>95% Lower CI</th>
<th>95% Upper CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-5.81816</td>
<td>3.21831</td>
<td>-1.81</td>
<td>0.071</td>
<td>1.00</td>
<td>0.80</td>
<td>1.26</td>
</tr>
<tr>
<td>Administration Subscale</td>
<td>0.0019064</td>
<td>0.115783</td>
<td>0.02</td>
<td>0.987</td>
<td>1.00</td>
<td>0.80</td>
<td>1.26</td>
</tr>
<tr>
<td>Advising Subscale</td>
<td>0.104785</td>
<td>0.14352</td>
<td>0.74</td>
<td>0.462</td>
<td>1.11</td>
<td>0.84</td>
<td>1.47</td>
</tr>
<tr>
<td>Faculty Subscale</td>
<td>0.573535</td>
<td>0.196747</td>
<td>2.92</td>
<td>0.004</td>
<td>1.77</td>
<td>1.21</td>
<td>2.61</td>
</tr>
<tr>
<td>Multiple Roles Subscale</td>
<td>0.488252</td>
<td>0.186870</td>
<td>2.61</td>
<td>0.009</td>
<td>1.63</td>
<td>1.13</td>
<td>2.35</td>
</tr>
<tr>
<td>Age</td>
<td>0.250330</td>
<td>0.0340117</td>
<td>0.74</td>
<td>0.462</td>
<td>1.03</td>
<td>0.96</td>
<td>1.10</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.330248</td>
<td>0.671263</td>
<td>-0.49</td>
<td>0.623</td>
<td>0.72</td>
<td>0.19</td>
<td>2.68</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.0909570</td>
<td>0.304545</td>
<td>-0.30</td>
<td>0.765</td>
<td>0.91</td>
<td>0.50</td>
<td>1.66</td>
</tr>
<tr>
<td>Work Hours</td>
<td>0.204426</td>
<td>0.207095</td>
<td>0.99</td>
<td>0.324</td>
<td>1.23</td>
<td>0.82</td>
<td>1.84</td>
</tr>
<tr>
<td>Dependents</td>
<td>0.393426</td>
<td>0.307312</td>
<td>1.28</td>
<td>0.200</td>
<td>1.48</td>
<td>0.81</td>
<td>2.71</td>
</tr>
<tr>
<td>First-Generation</td>
<td>2.38254</td>
<td>0.945660</td>
<td>2.52</td>
<td>0.012</td>
<td>10.83</td>
<td>1.70</td>
<td>69.13</td>
</tr>
<tr>
<td>Low-Income</td>
<td>0.0428515</td>
<td>0.612127</td>
<td>0.07</td>
<td>0.944</td>
<td>1.04</td>
<td>0.31</td>
<td>3.46</td>
</tr>
<tr>
<td>Extracurricular Activities</td>
<td>0.580629</td>
<td>0.617049</td>
<td>0.94</td>
<td>0.347</td>
<td>1.79</td>
<td>0.53</td>
<td>5.99</td>
</tr>
<tr>
<td>SSS Participation Status</td>
<td>-0.132356</td>
<td>0.795991</td>
<td>-0.17</td>
<td>0.868</td>
<td>0.88</td>
<td>0.18</td>
<td>4.17</td>
</tr>
</tbody>
</table>

The Faculty and Multiple Roles Subscale predictors were found to be significant at the 1% level, while the first-generation status was significant at approximately the 1% level. All other variables were found to be not significant. Coefficients are positive on Faculty and Multiple Roles Subscale predictors, meaning that higher scores result in increased persistence. The Coefficient for first-generation status is positive, meaning that first-generation students are most likely to persist after transfer. Further, the odds ratio for this variable illustrates that first-generation students are 10 times more likely to persist than continuing-education students.

Several statistics were utilized to test for “goodness of fit” and significance of the regression model.
**Goodness-of-Fit Tests**

<table>
<thead>
<tr>
<th>Method</th>
<th>Chi-Square</th>
<th>DF</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson</td>
<td>77.1847</td>
<td>64</td>
<td>0.125</td>
</tr>
<tr>
<td>Deviance</td>
<td>85.6548</td>
<td>64</td>
<td>0.037</td>
</tr>
<tr>
<td>Hosmer-Lemeshow</td>
<td>4.2547</td>
<td>8</td>
<td>0.833</td>
</tr>
</tbody>
</table>

According to the Pearson goodness-of-fit test, the regression model is a good fit for this research question. According to the Deviance goodness-of-fit, which shows a model being a good fit only above 1\%, results are less meaningful due to significance levels at 1\%.
Appendix B

Mattering Scales Questionnaire for College Students (MSQCS) - Revised
Includes Demographic Survey and Cover Letter
How did [institution] treat you? 
Take 15 minutes and tell us.

One of the goals of [institution] is to operate a student-centered campus. Working with [institution], I am trying to determine how the college treated you while you were a student.

Your participation is voluntary and confidential. You have been assigned a code number that will be used to identify your responses. All information will be recorded anonymously, and the results will be reported as a group. No responses will be reported individually. Only I, as the researcher, will know your name, but I will not divulge it or identify your answers to anyone. All information will be held in the strictest confidence. I encourage you to complete the questionnaire and return it by [date].

Alternatively, if you would rather complete the survey online, please go to [website address] by [date] and enter code # ____________.

INSTRUCTIONS FOR RETURNING THE QUESTIONNAIRE

- Check to make sure you have answered all questions.
- Check to make sure your answers are legible.
- To mail, insert into the self-addressed, stamped envelope provided. No postage is required. Drop the envelope in any post office mailbox.

Thank you for your participation!!
# Mattering Scales Questionnaire for College Students

Please circle the response that best described your feelings while you were a student at [institution]. Please select a response for each item.

<table>
<thead>
<tr>
<th></th>
<th>SD = STRONGLY DISAGREE</th>
<th>D = DISAGREE</th>
<th>N = NEITHER AGREE OR DISAGREE</th>
<th>A = AGREE</th>
<th>SA = STRONGLY AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The administration seemed to consider student priorities as important</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>My advisor didn’t seem to remember things we discussed before</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>I had a hard time finishing my degree because of time limits on completing course requirements</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>I got support from my classmates when I needed it</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>The university’s policy of transfer credits penalized students</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>6</td>
<td>My questions seemed to put faculty members on the defensive</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>7</td>
<td>The faculty and administrators were sensitive to my other responsibilities</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>8</td>
<td>I sometimes felt alone and isolated at the college</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>9</td>
<td>The administrative rules and regulations were clear to me</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>10</td>
<td>My professors interpreted assertiveness as a challenge to their authority</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>11</td>
<td>The administration set things up to be easy for them, not the students</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>12</td>
<td>It was hard for me to adjust to the school environment</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>13</td>
<td>If my advisor didn’t know the answer to my questions, he she would seek out the answers</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>14</td>
<td>The classroom atmosphere encouraged me to speak out in class</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>15</td>
<td>I felt my classmates reacted positively to my experience and knowledge</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>16</td>
<td>My professors seemed to recognize other students but not me</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>17</td>
<td>I didn’t have time to complete the administrative tasks the college required</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>18</td>
<td>There was always someone on campus that could help me when I had a question or problem</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>19</td>
<td>I felt like I fit in my classes</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>20</td>
<td>The administrative offices were not open at times when I needed them</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>21</td>
<td>The administration made efforts to accommodate students</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
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Please continue to the next page.
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<th>Q</th>
<th>Description</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
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<tbody>
<tr>
<td>22</td>
<td>I had a good relationship with my classmates.</td>
<td></td>
<td></td>
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<tr>
<td>23</td>
<td>Sometimes I felt out of place in the classroom.</td>
<td></td>
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<tr>
<td>24</td>
<td>The college did not commit enough resources to off-campus courses.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>25</td>
<td>There was always an advisor available to talk with me if I need to ask a</td>
<td></td>
<td></td>
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<tr>
<td>26</td>
<td>My classmates would help me catch up to the new technologies if I needed it</td>
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<tr>
<td>27</td>
<td>My experience-based comments were accepted by my professors.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>28</td>
<td>It took too long to register or correct registration problems.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>29</td>
<td>Administrative staff was helpful in answering my questions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>30</td>
<td>Fellow students didn't seem to listen to me when I shared my life experiences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Unless I had another student like me in class, no one really understood how</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>32</td>
<td>The college offered alternatives to the traditional semester-length courses</td>
<td></td>
<td></td>
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<tr>
<td>33</td>
<td>(example: weekend courses).</td>
<td></td>
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<tr>
<td>34</td>
<td>I had adequate opportunities to get to know fellow students.</td>
<td></td>
<td></td>
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<tr>
<td>35</td>
<td>Campus rules and regulations seemed to have been made for someone other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>36</td>
<td>than me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>37</td>
<td>My age sometimes got in the way of my interactions with other students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>38</td>
<td>Some of the jokes my professors told made me feel uncomfortable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Classes were offered at times that were good for me.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>40</td>
<td>I felt welcome on campus.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>41</td>
<td>The classroom desks were uncomfortable.</td>
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<tr>
<td>42</td>
<td>I felt my activity fees were spent in a way that was meaningful to me.</td>
<td></td>
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<tr>
<td>43</td>
<td>My advisor had office hours at times that I was on campus.</td>
<td></td>
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<tr>
<td>44</td>
<td>Departmental rules sometimes made my goals difficult or impossible.</td>
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<tr>
<td>45</td>
<td>The school newspaper didn't discuss student issues that were relevant to me</td>
<td></td>
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<tr>
<td>46</td>
<td>My professors sometimes ignored my comments or questions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>I sometimes felt my professors wanted me to hurry up and finish speaking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please continue to the next page.

1. Age as of October 1, 2010? __________ years old

2. Gender: (Check one)  
   □ Male  □ Female

3. Marital status: (Check one)  
   □ single (never been married)  
   □ unmarried and living with partner / significant other  
   □ married  
   □ divorced  
   □ widowed  
   □ separated

4. Enrollment status the majority of the time you attended [institution]: (Check one)  
   □ Full-time student (enrolled in at least 12 credit hours this semester)  
   □ Part-time student (enrolled in less than 12 credit hours this semester)

5. Did you work while attending [institution]? (Check one)  
   □ No (Go to #7)  
   □ Sometimes (Go to #6)  
   □ Yes (Go to #6)

6. If Yes or Sometimes, what is the average number of hours you worked per week the majority of the time you attended [institution]? (Check one)  
   □ 0-10 hours  
   □ 11-20 hours  
   □ 21-30 hours  
   □ 31-40 hours  
   □ Over 40 hours

7. Did you have dependents living with you while attending [institution]? (Check one)  
   (Examples: spouse, children, grandchildren, parents, or others that you were financially responsible for.)  
   □ No (Go to #9)  
   □ Yes (Go to #8)

8. If yes, how many dependents did you have while you were a student at [institution]?
   __________ Number of Dependents

9. Did you take developmental courses while you were a student at [institution]? (Check one)  
   □ No (Go to #11 on next page)  
   □ Yes (Go to #10)

10. If Yes, how many developmental courses did you take while at [institution]? (Check one)  
    □ 1  
    □ 2  
    □ 3 or more

Please continue to the next page.
Were you a participant in the federal TRIO Student Support Services (SSS) program [other name] while a student at [institution]? (Check one)

☐ No (Go to #17 on the next page)
☐ Yes (Go to #12)

12 If Yes, please mark which of the following services you utilized from SSS [other name] staff. (Check all that apply.)

☐ Help registering for classes
☐ Keeping track of grades through mid-term progress/grade reports filled out by instructors and turned in to SSS [other name] staff
☐ Help talking to instructors about problems I had in class
☐ Tutoring by people with a 4-year college degree
☐ Tutoring by other students working in the tutoring lab or academic support center
☐ Help figuring out what career I would like best
☐ Help with problems I had in my personal life
☐ Trips with SSS [other name] staff and other students
☐ Help with the transfer process (filling out forms, transferring financial aid to the new school, knowing what classes would transfer, sending transcripts, etc.)
☐ Supplemental Grant Assistance (Money paid to you)
☐ College / campus visits to 4-year schools
☐ Workshops, either online or in person
☐ Help filling out financial aid forms
☐ Help for students with disabilities

13 Of the services you stated you utilized, please mark which helped you most. (Check all that apply.)

☐ Help registering for classes
☐ Keeping track of grades through mid-term progress/grade reports filled out by instructors and turned in to SSS [other name] staff
☐ Help talking to instructors about problems I had in class
☐ Tutoring by people with a 4-year college degree
☐ Tutoring by other students working in the tutoring lab or academic support center
☐ Help figuring out what career I would like best
☐ Help with problems I had in my personal life
☐ Trips with SSS [other name] staff and other students
☐ Help with the transfer process (filling out forms, transferring financial aid to the new school, knowing what classes would transfer, sending transcripts, etc.)
☐ Supplemental Grant Assistance (Money paid to you)
☐ College / campus visits to 4-year schools
☐ Workshops, either online or in person
☐ Help filling out financial aid forms
☐ Help for students with disabilities

Please continue to the next page.
14 How often did you use or participate in SSS [other name] activities? (Check one)
   □ 0-3 times / semester
   □ 4-6 times / semester
   □ 7 or more times / semester

15 How often did you visit SSS [other name] staff in person? (Check one)
   □ 0-3 times / semester
   □ 4-6 times / semester
   □ 7 or more times / semester

16 How often did you communicate with SSS [other name] staff over the phone or by email? (Check one)
   □ 0-3 times / semester
   □ 4-6 times / semester
   □ 7 or more times / semester

17 Did either one of your parents/guardians have a bachelor's degree at the time you attended [institution]? (Check one)
   □ No
   □ Yes

18 Did you receive a Pell Grant while you attended [institution]? (Check one)
   □ No
   □ Yes

19 Were you involved in extracurricular activities or clubs while you attended [institution]? (Example: student government, college newspaper, Phi Theta Kappa, Phi Beta Lambda, etc.) (Check one)
   □ No
   □ Yes

20 Are you currently enrolled in a 4-year college working toward a bachelor's degree?
   □ No (Go to #23)
   □ Yes (Go to #21)

21 If yes, what school do you attend?
   College or University: ____________________________

22 If yes, what is your expected graduation date?
   Expected Graduation Date: _______________________

23 Please list an email address where I can contact you if I can't read one of your answers:
   Email Address: ____________________________

You have reached the end of the survey. Thank you!
Appendix C
MSQCS Subscales

Results are meant to be utilized as a campus ecology measure to uncover environmental trends rather than to interpret individual responses. Further, scale intercorrelation analysis revealed that a total instrument score is not interpretable and that the five scales should be individually reported (Kettle, 2001; Schlossberg, et al., 1990). Survey items are scored on a 5-point Likert scale, with 24 items with reverse values. The questions for each subscale are listed in the table below, with reversed values identified by an asterisk.

Questions Used to Measure MSQCS Subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>1, 5*, 7, 11*, 21, 24*, 28*, 32, 34*, 40, 43*</td>
</tr>
<tr>
<td>Advising</td>
<td>2*, 9, 13, 18, 25, 29, 37, 41</td>
</tr>
<tr>
<td>Peers</td>
<td>4, 8*, 14, 15, 19, 22, 26, 30*, 33, 35*, 38</td>
</tr>
<tr>
<td>Multiple Roles</td>
<td>3*, 12*, 17*, 20*, 31*, 39*, 42*</td>
</tr>
<tr>
<td>Faculty</td>
<td>6*, 10*, 16*, 23*, 27, 36*, 44*, 45*</td>
</tr>
</tbody>
</table>
### Participant Demographics

#### Variable

<table>
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<th></th>
<th>Total</th>
<th>ACTC</th>
<th>HCTC</th>
<th>SKCTC</th>
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<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
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</tr>
<tr>
<td>Traditional</td>
<td>45%</td>
<td>32%</td>
<td>42%</td>
<td>54%</td>
</tr>
<tr>
<td>Nontraditional (25 &amp; older)</td>
<td>55%</td>
<td>68%</td>
<td>58%</td>
<td>46%</td>
</tr>
<tr>
<td>Mean</td>
<td>30.5</td>
<td>34.4</td>
<td>31.6</td>
<td>27.9</td>
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<td>SD</td>
<td>11.43</td>
<td>12.44</td>
<td>11.19</td>
<td>10.64</td>
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<tr>
<td><strong>Gender</strong></td>
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</tr>
<tr>
<td>Male</td>
<td>30%</td>
<td>38%</td>
<td>37%</td>
<td>22%</td>
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<tr>
<td>Female</td>
<td>70%</td>
<td>63%</td>
<td>63%</td>
<td>78%</td>
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<tr>
<td><strong>Marital Status</strong></td>
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<tr>
<td>Single</td>
<td>41.3%</td>
<td>15.8%</td>
<td>41.7%</td>
<td>45.9%</td>
</tr>
<tr>
<td>Unmarried / Living with Partner</td>
<td>3.8%</td>
<td>5.3%</td>
<td>4.2%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Married</td>
<td>45%</td>
<td>57.9%</td>
<td>45.8%</td>
<td>37.8%</td>
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<tr>
<td>Divorced</td>
<td>11.3%</td>
<td>21.1%</td>
<td>8.3%</td>
<td>8.1%</td>
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<tr>
<td>Widowed</td>
<td>2.5%</td>
<td>0%</td>
<td>0%</td>
<td>5.4%</td>
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<td><strong>Enrollment Status</strong></td>
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<td>Part-Time</td>
<td>13.8%</td>
<td>15.8%</td>
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<td>13.5%</td>
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<tr>
<td>Full-Time</td>
<td>86.3%</td>
<td>84.2%</td>
<td>87.5%</td>
<td>86.5%</td>
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<td><strong>Work Status</strong></td>
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<tr>
<td>Didn’t Work</td>
<td>25%</td>
<td>26.3%</td>
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<tr>
<td>1-10hrs/wk</td>
<td>4.9%</td>
<td>0%</td>
<td>0%</td>
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<tr>
<td>11-20hrs/wk</td>
<td>14.8%</td>
<td>5.3%</td>
<td>12.5%</td>
<td>13.5%</td>
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<tr>
<td>21-30hrs/wk</td>
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<td>26.3%</td>
<td>16.7%</td>
<td>21.6%</td>
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<tr>
<td>31-40hrs/wk</td>
<td>36.1%</td>
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<td>41.7%</td>
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<tr>
<td>41+hrs/wk</td>
<td>16.4%</td>
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<td><strong>Dependents</strong></td>
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<tr>
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<td>53.8%</td>
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<tr>
<td>1 Dependent</td>
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<td>2 Dependents</td>
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<td>3 Dependents</td>
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<td><strong>Developmental Course Completion</strong></td>
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<td>50%</td>
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<td>29.2%</td>
<td>56.8%</td>
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<td>1 Developmental Course</td>
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<td>2 Developmental Courses</td>
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<td>20.8%</td>
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<tr>
<td>3 or More Developmental Courses</td>
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<td>25%</td>
<td>8.1%</td>
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<tr>
<td><strong>SSS Participation Status</strong></td>
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<td>SSS Participant</td>
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<td>SSS Non-Participant</td>
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<td><strong>First Generation Student</strong></td>
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<tr>
<td>1st Generation</td>
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<td>81%</td>
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<td>Not 1st Generation</td>
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<td>Extra-curricular Activities</td>
<td>Involved</td>
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<td>17%</td>
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<tr>
<td>----------------------------</td>
<td>----------</td>
<td>-------</td>
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<tr>
<td>Northern Kentucky University</td>
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<td>5.3%</td>
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<tr>
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<tr>
<td>Weber State University</td>
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Appendix E

INDIVIDUAL STUDENT INTERVIEW GUIDE

Meeting Time ________________________________

Meeting Place ________________________________

Participant Pseudonym ________________________________

Interview questions and prompts:

Tell me about your life in Appalachia Kentucky.

Tell me about where you live.

Tell me about your roles in your family and community.

What kind of educational experiences have you had in your life?

How did you decide which four-year program in which to enroll?

What are the differences in your community college experiences and your university experiences?

Tell me in what ways your educational experiences have affected your roles in your family and community.
Appendix F

Map of Appalachian Community Colleges in Kentucky
Appendix G

Informed Consent Form

Consent to Participate in a Research Study

APPALACHIAN BRIDGES TO THE BACCALAUREATE
Appalachian Community College Transfer
Institutional Perceptions of Community College Transfer Success

Organizational Structure and Mattering: How Community Colleges Affect Transfer Success

WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?

You are being invited to take part in a research study about institutional and student characteristics that matter in the pathway to the baccalaureate degree. You are being invited to take part in this research study because you have been identified as a staff member or college leader involved with the transfer process at your college. If you volunteer to take part in this study, you will be one of about 24 people to do so.

WHO IS DOING THE STUDY?

The person in charge of this study is Amber Decker, a doctoral student at the University of Kentucky, Department of Education Policy Studies and Evaluation. She is being guided in this research by Dr. Jane Jensen. Other researchers involved in the study are Christopher Phillips, Michelle Dykes, and Nancy Preston who are also doctoral students in the same program.

WHAT IS THE PURPOSE OF THIS STUDY?

The proposed study seeks to explore the interface between institutional and student characteristics and transfer success indicators. By doing this study, we hope to learn how different characteristics affect students and their pathway to the baccalaureate degree.

ARE THERE REASONS WHY YOU SHOULD NOT TAKE PART IN THIS STUDY?

Any person may decline participation without harm.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The research procedures will be conducted at the participants’ home campus. You will need to come to the designated place on campus one time during the study. Each visit
will take about 45 minutes. The total amount of time you will be asked to volunteer for this study is 45 minutes during the month of December, 2010 or January, 2011.

WHAT WILL YOU BE ASKED TO DO?

During a 45-minute interview, you will be asked to reflect on information about your college’s institutional and student characteristics related to the transfer process. This information will be provided to you by the researchers. Researchers will ask you questions about your perceptions regarding how these characteristics are related to various transfer success indicators. After completion of the interview, the researchers will discuss and compile the major themes that emerge from your responses.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

WILL YOU BENEFIT FROM TAKING PART IN THIS STUDY?

There is no guarantee that you will get any benefit from taking part in this study. Your willingness to take part, however, may, in the future, help community colleges as a whole better understand the transfer experience.

DO YOU HAVE TO TAKE PART IN THE STUDY?

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering.

IF YOU DON’T WANT TO TAKE PART IN THE STUDY, ARE THERE OTHER CHOICES?

If you do not want to be in the study, there are no other choices except not to take part in the study.

WHAT WILL IT COST YOU TO PARTICIPATE?

There are no costs associated with taking part in the study.

WILL YOU RECEIVE ANY REWARDS FOR TAKING PART IN THIS STUDY?

You will not receive any rewards or payment for taking part in the study.

WHO WILL SEE THE INFORMATION THAT YOU GIVE?

We will make every effort to keep private all research records that identify you to the extent allowed by law.

Your information will be combined with information from other people taking part in the study. When we write about the study to share it with other researchers, we will write about the combined information we have gathered. You will not be personally identified
in these written materials. We may publish the results of this study; however, we will keep your name and other identifying information private.

We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. All data will remain in the possession of the researchers or be kept in a locked cabinet or password protected system at the researchers’ office.

We will keep private all research records that identify you to the extent allowed by law. However, there are some circumstances in which we may have to show your information to other people. We may be required to show information which identifies you to people who need to be sure we have done the research correctly; these would be people from such organizations as the University of Kentucky.

**CAN YOUR TAKING PART IN THE STUDY END EARLY?**

If you decide to take part in the study you still have the right to decide at any time that you no longer want to continue. You will not be treated differently if you decide to stop taking part in the study.

The individuals conducting the study may need to withdraw you from the study. This may occur if you are not able to follow the directions they give you, if they find that your being in the study is more risk than benefit to you, or if the study ends early for a variety of reasons.

**WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS, CONCERNS, OR COMPLAINTS?**

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study, you can contact the investigator(s), Amber Decker at [amber.decker@kctcs.edu](mailto:amber.decker@kctcs.edu) or (859) 442-1147, or Chris Phillips at [chris.phillips@kctcs.edu](mailto:chris.phillips@kctcs.edu) or (606) 679-8501. If you have any questions about your rights as a volunteer in this research, contact the staff in the Office of Research Integrity at the University of Kentucky at 859-257-9428 or toll free at 1-866-400-9428. We will give you a signed copy of this consent form to take with you.

________________________  ____________
Signature of person agreeing to take part in the study          Date

________________________
Printed name of person agreeing to take part in the study

________________________  __________________
Name of [authorized] person obtaining informed consent          Date
References


Cueso (2001). *The transfer transition: Student advancement from 2-year to 4-year institutions.* ERIC ED 462130.


Gabbard, G. et al. (2006). *Practices supporting transfer of low-income community college students to selective institutions: Case study findings. Section IV in: The study of economic, informational, and cultural barriers to community college student transfer access at selective institutions*. Landsdowne, VA: Jack Kent Cooke Foundation.


Striplin, J. J. (1999). Facilitating transfer for first-generation community college students. *ERIC Digest (ED430627).*


Vita

Date of birth and location of birth:
March 6, 1973
Somerset, Kentucky

Educational institutions attended and degrees awarded:
University of Tennessee, Knoxville, Tennessee: MA (2003)
Western Kentucky University, Bowling Green, Kentucky: MA (1996)
University of Kentucky, Lexington, Kentucky: BA (1995)
Somerset Community College, Somerset, Kentucky: AS (1993)

Professional positions:
Professor of Economics at Somerset Community College
Adjunct Professor of Economics at Eastern Kentucky University

Professional honors:
Kentucky Economic Association President, 2009
American Economic Association Committee on Economic Education Teaching Innovations Program Certificate of Achievement, 2008
Leadership East Kentucky Class of 2006
Somerset-Pulaski County Chamber of Commerce Leadership Class of 2003
KCTCS President’s Leadership Seminar Class of 2002
University of Kentucky Community College Academic Leadership Class of 1998

Professional publications:
None

Name:
Christopher M. Phillips