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APPALACHIAN BRIDGES TO THE BACCALAUREATE: THE INFLUENCE OF MULTIPLE ROLES AND CULTURAL NORMS ON THE BACCALAUREATE PERSISTENCE OF LOCATION-BOUND APPALACHIAN WOMEN

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APPALACHIAN BRIDGES TO THE BACCALAUREATE: 
THE INFLUENCE OF MULTIPLE ROLES AND CULTURAL NORMS ON THE 
BACCALAUREATE PERSISTENCE OF LOCATION-BOUND APPALACHIAN WOMEN

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
Nancy Coldiron Preston
Lexington, Kentucky

Director: Dr. Jane Jensen, Director of Graduate Studies
Lexington, Kentucky
2011

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ABSTRACT OF DISSERTATION

APPALACHIAN BRIDGES TO THE BACCALAUREATE:
THE INFLUENCE OF MULTIPLE ROLES AND CULTURAL NORMS ON THE
BACCALAUREATE PERSISTENCE OF LOCATION-BOUND NONTRADITIONAL
APPALACHIAN WOMEN

Too few Kentucky community college students transfer and persist to earn baccalaureate degrees. This is particularly true in Appalachia Kentucky which has a high rate of poverty and a low rate of baccalaureate attainment. Scholars and economists agree that the fastest way to decrease poverty within a geographical region is to increase the educational level of the citizens. Policy makers in the Commonwealth have established a goal of doubling the number of baccalaureate holders within the state by 2020.

This study is framed by a collaborative study which examined the ways in which institutional and student characteristics impact the pathway to the baccalaureate degree for Appalachian community college students in Kentucky. Quantitative analysis was conducted for the student populations who graduated in the summer and spring 2009 from four Appalachian community colleges. A framework was developed that identified two of the colleges as high-impact. The graduates of these colleges were twice as likely to transfer as the students from the two low-impact institutions. The two high performing colleges had partnership arrangements with baccalaureate-granting institutions that offered multiple degree options in or near the community college campus.

Four companion studies that examined institutional and student characteristics were conducted. The purpose of this qualitative study was to examine the ways in which nontraditional-aged Appalachian women attending college as location-bound adults perceive the supports and challenges to baccalaureate attainment. Twenty-four women were interviewed to explore the ways in which they balance their multiple life roles with the demands of their postsecondary studies, to understand their perceptions how Appalachian culture impacts them as students, and their perceptions of the ways in which
educational institutions provide them with baccalaureate access. Narrative was used both as the method of inquiry and the object of interpretation.

Major themes that emerged from this study included: (1) Adult Appalachian female students are both challenged and supported by their major life roles and (2) Postsecondary institutions provide both support and challenges to this population.

KEYWORDS: Transfer, Appalachia, Community College, Nontraditional Students, Women Students
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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.

The 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.

The research team, who conducted the study described in chapter 2 collaborative, worked together to plan the individual companion manuscripts contained in this dissertation. 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 Christopher Phillips. 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 in order to adequately explore the policy and practice 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.

The collaborative study revealed that a significant sub-population of students are female and/or nontraditional aged. In order to further investigate the student characteristics that influence transfer, a qualitative study of adult women who were enrolled in baccalaureate programs within their Appalachian home communities was
conducted. The overarching research question that guided this study was how do nontraditional-aged Appalachian women who are location-bound perceive the supports and challenges they experience in baccalaureate studies? The theoretical foundation for this study was role theory set within the context of Appalachian culture. Semi-structured interviews were utilized in this study in order to develop a rich understanding of the experiences and perceptions of the participants. All of the study participants were enrolled in a region-based program that allowed them to transfer to a baccalaureate program without leaving their home communities. Narrative was used as both the method of inquiry and the object of interpretation, allowing an understanding of how the participants make sense of their experiences through the stories they told. A description of this study and its findings are found in Chapter 3, The influence of Multiple Roles and Cultural Norms on the Baccalaureate Persistence of Location-Bound Nontraditional Appalachian Women Students.

Chapter 4, Recruiting Marginalized Participants in Research: Reflections on a Study of Appalachian Women, of this dissertation is a research essay that explores the topic of Appalachian women as a marginalized population. This essay describes the steps I took to increase participation in my project, explores research position movement from outsider to insider, and discusses the literature on the recruitment of marginal groups for research projects.

This dissertation utilizes a journal article format with chapters as described above. This introduction serves as the first chapter. Chapter two is a technical report that details a collaborative study and synthesizes the findings of the four individual companion studies. The third chapter describes my individual study in a journal article format.
Chapter four is a scholarly essay which relates to the obstacles I encountered in recruiting participants from a marginalized population for my individual study and also is presented in a journal article format. Chapter five is a conclusion which provides personal reflection on the dissertation process. References and appendices are included at the end of each chapter.
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 predicts 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 is Appalachian 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 partnership. 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.
“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, 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.

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, in 1960, during his 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 figure out 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, 2006), 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, we employed a mixed-method study, 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. 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 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 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. The 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 (Decker, 2011, Phillips, 2011).

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 (Preston, 2011).
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 1 illustrates the profiles:

Table 2.1

Institutional Profiles

<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>
</tbody>
</table>

Total Cumulative Hours Earned

<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>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>
</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.
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 (Dykes, 2011, Phillips, 2011, Preston, 2011). 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 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 four through six deal with the number of four-year programs and institutions on campus, as well as those within driving distance of the community colleges. The table below 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>1. Internal and External Ties</td>
<td>A Strong Internal and Strong External</td>
<td>A Strong Internal and Strong External</td>
</tr>
<tr>
<td></td>
<td>B Strong Internal and Strong External</td>
<td>B Weak Internal and Weak External</td>
</tr>
<tr>
<td>2. Organizational Structure</td>
<td>NP P</td>
<td>NP NP</td>
</tr>
<tr>
<td>3. Transfer Center Structure</td>
<td>I I</td>
<td>D D</td>
</tr>
<tr>
<td>4. # of on-campus BA programs</td>
<td>7 8</td>
<td>6 1</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th></th>
<th>5. # of 4-year schools on-campus</th>
<th>6. # of 4-year schools within</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 2.2 continued
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.

Student perspective: “It’s really difficult to keep things going; I work full-time at a gas station, have a two-year old, and go to school full-time.”
--Emma, age 23
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.
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 theme that emerged about community college advising was the tendency for advisors to have students enroll 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: Table 2.4 & Table 2.5). 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 (Preston, 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.

Student perspective: “I was so scared to start college, I was afraid I wasn’t smart enough, but my teachers made me feel like I could succeed.”

--Trish, age 46
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; Preston, 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

*Completion, Transfer, and Persistence*

<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>
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<td>122</td>
</tr>
<tr>
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<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>
</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).
Institutional perspective:
“Communication is more difficult with institutions that are far away, and most of our students want to stay in the community.”
---Ted, Community College Advisor

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). 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 list includes the major recommendations informed by this 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. 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. 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 the 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 this 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 checksheets 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.

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

Quantitative Analysis

Table 2.4

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 95% CI</th>
<th>Lower</th>
<th>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>
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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.

Table 2.5

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</th>
<th>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>
<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>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>-1.203635</td>
<td>0.615143</td>
<td>-1.96</td>
<td>0.050</td>
<td>0.30 - 1.00</td>
<td></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>
<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>1.48 - 2.34</td>
<td></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>
<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.
Table 2.6

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>
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<td></td>
<td></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>0.245</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>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>
<td>0.000</td>
<td>3.21</td>
<td>1.70</td>
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</tr>
<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.
Table 2.7

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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<tr>
<td>Constant</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>0.245</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>
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<td>0.370587</td>
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<tr>
<td>College 2</td>
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<td>4.48</td>
</tr>
<tr>
<td>College 4</td>
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<td>0.264</td>
<td>0.70</td>
<td>0.38</td>
<td>1.30</td>
</tr>
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</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.
Table 2.8

Regression 5: Colleges 3 & 4 with College 2 Omitted

<table>
<thead>
<tr>
<th>Predictor</th>
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<th>SE Coef</th>
<th>Z</th>
<th>P</th>
<th>Odds Ratio</th>
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<th>95% Upper</th>
</tr>
</thead>
<tbody>
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<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>
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<td>College 1</td>
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<td>0.44</td>
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</tr>
<tr>
<td>College 3</td>
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<td>0.019</td>
<td>0.44</td>
<td>0.22</td>
<td>0.88</td>
</tr>
<tr>
<td>College 4</td>
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<td>0.325241</td>
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<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.
Table 2.9

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% Lower</th>
<th>95% 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>0.92</td>
<td>0.57</td>
<td>1.51</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>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
<tr>
<td>Age</td>
<td>0.185278</td>
<td>0.243253</td>
<td>0.76</td>
<td>0.446</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
<tr>
<td>Cum. GPA</td>
<td>0.226335</td>
<td>0.235306</td>
<td>0.96</td>
<td>0.336</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</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>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
<tr>
<td>College 2</td>
<td>0.061757</td>
<td>0.382342</td>
<td>0.16</td>
<td>0.872</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
<tr>
<td>College 3</td>
<td>-0.754649</td>
<td>0.370587</td>
<td>-2.04</td>
<td>0.042</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</td>
</tr>
<tr>
<td>College 4</td>
<td>-1.104820</td>
<td>0.343546</td>
<td>-3.22</td>
<td>0.001</td>
<td>0.92</td>
<td>0.57</td>
<td>1.51</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.

Table 2.10
**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</td>
<td>38.84</td>
<td>42.04</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>7.669</td>
<td>6.811</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>1.759</td>
<td>1.390</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>58.807</td>
<td>46.389</td>
</tr>
<tr>
<td>Advising Subscale</td>
<td>Mean</td>
<td>31.32</td>
<td>33.29</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>5.803</td>
<td>4.592</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>1.331</td>
<td>.937</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>33.673</td>
<td>21.085</td>
</tr>
<tr>
<td>Peers Subscale</td>
<td>Mean</td>
<td>43.53</td>
<td>45.58</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>6.703</td>
<td>7.027</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>1.538</td>
<td>1.434</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>44.930</td>
<td>49.384</td>
</tr>
<tr>
<td>Multiple Roles Subscale</td>
<td>Mean</td>
<td>26.63</td>
<td>27.17</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>5.166</td>
<td>4.517</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>1.185</td>
<td>.922</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>26.690</td>
<td>20.406</td>
</tr>
<tr>
<td>Faculty Subscale</td>
<td>Mean</td>
<td>30.74</td>
<td>32.96</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>4.039</td>
<td>4.930</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>.927</td>
<td>1.006</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>16.316</td>
<td>24.303</td>
</tr>
</tbody>
</table>
Table 2.11
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></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>Advising Subscale</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>Peers Subscale</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>Multiple Roles Subscale</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>Faculty Subscale</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).

Table 2.12
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</th>
<th>95% 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 Status</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. See table below.

Table 2.13
*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>Item</th>
<th>Description</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</td>
</tr>
<tr>
<td>13</td>
<td>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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</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>
<td>SA</td>
</tr>
<tr>
<td>19</td>
<td>I felt I fit in my classes</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</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>
<td>SA</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>
<td>SA</td>
</tr>
</tbody>
</table>

Please continue to the next page.
<table>
<thead>
<tr>
<th></th>
<th>I had a good relationship with my classmates.</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Sometimes I felt out of place in the classroom.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>24</td>
<td>The college did not commit enough resources to off-campus courses.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>25</td>
<td>There was always an advisor available to talk with me if I need to ask a question.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>26</td>
<td>My classmates would help me catch up to the new technologies if I needed it.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>27</td>
<td>My experience-based comments were accepted by my professors.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>28</td>
<td>It took too long to register or correct registration problems.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>29</td>
<td>Administrative staff was helpful in answering my questions.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>30</td>
<td>Fellow students didn't seem to listen to me when I shared my life experiences.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>31</td>
<td>Unless I had another student like me in class, no one really understood how hard it was to be there.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>32</td>
<td>The college offered alternatives to the traditional semester-length courses (example: weekend courses).</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>33</td>
<td>I had adequate opportunities to get to know fellow students.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
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<tr>
<td>34</td>
<td>Campus rules and regulations seemed to have been made for someone other than me.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>35</td>
<td>My age sometimes got in the way of my interactions with other students.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>36</td>
<td>Some of the jokes my professors told made me feel uncomfortable.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>37</td>
<td>Classes were offered at times that were good for me.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>38</td>
<td>I felt welcome on campus.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>39</td>
<td>The classroom desks were uncomfortable.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>40</td>
<td>I felt my activity fees were spent in a way that was meaningful to me.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>41</td>
<td>My advisor had office hours at times that I was on campus.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>42</td>
<td>Departmental rules sometimes made my goals difficult or impossible.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>43</td>
<td>The school newspaper didn't discuss student issues that were relevant to me.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>44</td>
<td>My professors sometimes ignored my comments or questions.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>45</td>
<td>I sometimes felt my professors wanted me to hurry up and finish speaking.</td>
<td>SD</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</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)

   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

6. 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)

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

7. 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)

   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.
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.

Table 2.14

*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>
### Table 2.15

**Appendix D**  
**Participant Demographics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th>ACTC</th>
<th>HCTC</th>
<th>SKCTC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</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/SD</td>
<td>30.5/11.43</td>
<td>34.4/12.44</td>
<td>31.6/11.19</td>
<td>27.9/10.64</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<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>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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>
<td>8.3%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Widowed</td>
<td>2.5%</td>
<td>0%</td>
<td>0%</td>
<td>5.4%</td>
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<tr>
<td><strong>Enrollment Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-Time</td>
<td>13.8%</td>
<td>15.8%</td>
<td>12.5%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Full-Time</td>
<td>86.3%</td>
<td>84.2%</td>
<td>87.5%</td>
<td>86.5%</td>
</tr>
<tr>
<td><strong>Work Status</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Didn’t Work</td>
<td>25%</td>
<td>26.3%</td>
<td>20.8%</td>
<td>24.3%</td>
</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>
</tr>
<tr>
<td>21-30hrs/wk</td>
<td>27.9%</td>
<td>26.3%</td>
<td>16.7%</td>
<td>21.6%</td>
</tr>
<tr>
<td>31-40hrs/wk</td>
<td>36.1%</td>
<td>26.3%</td>
<td>41.7%</td>
<td>18.9%</td>
</tr>
<tr>
<td>41+hrs/wk</td>
<td>16.4%</td>
<td>15.8%</td>
<td>8.3%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Worked</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>53.8%</td>
<td>47.4%</td>
<td>54.2%</td>
<td>56.8%</td>
</tr>
<tr>
<td>1 Dependent</td>
<td>18.8%</td>
<td>5.3%</td>
<td>29.2%</td>
<td>18.9%</td>
</tr>
<tr>
<td>2 Dependents</td>
<td>16.3%</td>
<td>36.8%</td>
<td>12.5%</td>
<td>8.1%</td>
</tr>
<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>4 Dependents</td>
<td>6.3%</td>
<td>5.3%</td>
<td>0%</td>
<td>10.8%</td>
</tr>
<tr>
<td>No Response</td>
<td>2.5%</td>
<td>0%</td>
<td>4.2%</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Dependents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>50%</td>
<td>63.2%</td>
<td>29.2%</td>
<td>56.8%</td>
</tr>
<tr>
<td>1 Developmental Courses</td>
<td>15%</td>
<td>15.8%</td>
<td>25%</td>
<td>8.1%</td>
</tr>
<tr>
<td>2 Developmental Courses</td>
<td>23.8%</td>
<td>21.1%</td>
<td>20.8%</td>
<td>2.7%</td>
</tr>
<tr>
<td>3 or More Developmental Courses</td>
<td>11.3%</td>
<td>0%</td>
<td>25%</td>
<td>8.1%</td>
</tr>
<tr>
<td><strong>Developmental Course Completion</strong></td>
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<tr>
<td>SSS Participant</td>
<td>20%</td>
<td>21%</td>
<td>12.5%</td>
<td>24.3%</td>
</tr>
<tr>
<td>SSS Non-Participant</td>
<td>80%</td>
<td>79%</td>
<td>87.5%</td>
<td>75.7%</td>
</tr>
<tr>
<td><strong>First Generation Student</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Generation</td>
<td>79%</td>
<td>68%</td>
<td>83%</td>
<td>81%</td>
</tr>
<tr>
<td>Not 1st Generation</td>
<td>21%</td>
<td>32%</td>
<td>17%</td>
<td>19%</td>
</tr>
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</table>
Table 2.15 (continued)

<table>
<thead>
<tr>
<th>Pell Recipient Status</th>
<th>Pell Recipient</th>
<th>Pell Nonrecipient</th>
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</tr>
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<tr>
<td></td>
<td>61%</td>
<td>58%</td>
<td>67%</td>
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</table>

<table>
<thead>
<tr>
<th>Extra-curricular Activities</th>
<th>Involved</th>
<th>Not Involved</th>
<th></th>
</tr>
</thead>
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<tr>
<td></td>
<td>27.5%</td>
<td>26%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>72.5%</td>
<td>74%</td>
<td>83%</td>
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</table>

<table>
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<tr>
<th>Transfer Persistence</th>
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<th>Non-Persister</th>
<th>No Response</th>
<th></th>
</tr>
</thead>
<tbody>
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<td></td>
<td>48%</td>
<td>52%</td>
<td>0%</td>
<td>51%</td>
</tr>
<tr>
<td></td>
<td>47%</td>
<td>53%</td>
<td>0%</td>
<td>46%</td>
</tr>
<tr>
<td></td>
<td>42%</td>
<td>58%</td>
<td>0%</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transfer Destination</th>
<th>Eastern Kentucky University</th>
<th>Lindsey Wilson College</th>
<th>Morehead State University</th>
<th>Ohio University Southern</th>
<th>Lincoln Memorial University</th>
<th>Union College</th>
<th>Bluefield State University</th>
<th>Colorado Technical University (Online)</th>
<th>Midway College</th>
<th>Northern Kentucky University</th>
<th>University of Kentucky</th>
<th>Weber State University</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10%</td>
<td>0%</td>
<td>12.5%</td>
<td>13.5%</td>
<td>10%</td>
<td>2.6%</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.3%</td>
<td></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

The Influence of Multiple Roles and Cultural Norms on the Baccalaureate
Persistence of Location-Bound Nontraditional Appalachian Women Students

The purpose of this study was to examine the ways in which nontraditional-aged Appalachian women attending college as location-bound adults perceive the supports and challenges to baccalaureate attainment. Nontraditional women students, those over the age of 24, are a significant population within the postsecondary education arena; however, this population often must balance many roles outside of the classroom that may result in a decrease in their persistence rates (Guastella, 2009). Many of these female students are location-bound, unable to move from their home communities to continue their postsecondary studies due to their life situations. Women in Appalachia can be considered to be a distinct cultural group that faces additional challenges to baccalaureate attainment (Helton & Keller, 2010). Community colleges are a primary gateway to the postsecondary arena for nontraditional female students. These institutions allow students to complete the first two years of baccalaureate studies while remaining in their home communities. The female participants in this qualitative study are graduates of Appalachian community colleges and have persisted through at least three semesters of studies in non-traditional baccalaureate programs that allow them to remain in their home communities.

Community colleges have been considered to be democratizing institutions since their inception, providing a portal to postsecondary education to diverse populations (McGrath & Van Buskirk, 1999). Rural student populations reflect this diversity, especially with regard to poverty and academic preparation. These populations, which
include minorities, persons with low socioeconomic statuses, and those who are under-prepared academically, have often been underserved by traditional four-year colleges and universities. The Appalachian region of Kentucky is one of the poorest areas of the country and also has one of the lowest rates of education achievement. In several counties in this geographical area, more than 40 percent of the population lives in poverty (United States Department of Agriculture (USDA), 2008). The poorest segment of this population is single women with children (Cseh & Ziliak, 2009). Community colleges offer access to a significant number of adult women students in Appalachia, through provision of the first two years of postsecondary coursework.

There are several avenues for baccalaureate attainment in Appalachia Kentucky for those who are unable or unwilling to leave their homes to enroll in traditional four-year institutions. These models of providing baccalaureate access include online degrees, specific degrees that are available within the region and offered by both private institutions, an educational clearinghouse that delivers programs from multiple institutions and is located on a community college campus, and university regional campuses located on community college campuses.

This study contributes to the understanding of how Appalachian women who are adult learners view their capacity to handle multiple life roles and examines the ways in which postsecondary programs provide them with baccalaureate degree access within their home communities. By interviewing nontraditional-aged women who are pursuing baccalaureate degrees without leaving their homes, a strong understanding of the unique experiences, obstacles, and supports of adult learners is provided. The lenses through which these women view their world and their experiences as postsecondary students are
important to educational professionals, college and university administrators, and policy
makers who are concerned with increasing the educational attainment rate in Appalachia
Kentucky through providing adequate educational access to nontraditional students.

Review of Literature

In order to understand the personal and institutional experiences of women adult
learners in Appalachia, it is important to understand the context of their regional cultural
and educational environment. A review of literature reveals that there is a significant
need for innovative programs to bridge the gap between community colleges and
baccalaureate-granting institutions. Nontraditional women students in Appalachia
Kentucky particularly need access to degree programs. These women typically maintain
multiple roles in their families that may make moving to a traditional four-year campus
difficult or impossible. The educational needs of this target population present challenges
for regional colleges and universities.

Postsecondary Education in Appalachian Kentucky

Appalachia Kentucky, in addition to having a history of severe and persistent
poverty, also has one of the lowest rates of education achievement in the country. 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, however, have
only single-digit percentage rates of baccalaureate degree holders (Kentucky Council on
Postsecondary Education (CPE), 2008). The Kentucky Postsecondary Education
Improvement Act of 1997 indicates that the level of education of the citizens is directly
related to the economic level of a geographical area (Sec.2). An essential step in
accomplishing the goals of this act is to have a well-integrated postsecondary education

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system that allows for accessible transfer from Kentucky Community and Technical College System (KCTCS) member colleges to baccalaureate-granting institutions.

Enrollment trends in postsecondary educational institutions across the United States demonstrate a significant population of adult learners. The Department of Labor (DOL) (2008) indications that more than half of all undergraduate students maintain adult responsibilities or are older than 24 years of age. This is particularly true in community colleges which traditionally serve a more diverse population (Handel, 2007). The DOL reports that while more adults are entering postsecondary education, these students are not necessarily transferring to baccalaureate-granting institutions to complete degrees (2008).

Community colleges traditionally serve a more diverse student population than universities and have experienced an even greater increase in adult learners than have baccalaureate-granting institutions. However, only about half of community college students who desire to transfer to a four-year institution succeed in this goal (Handel, 2007). The KCTCS student enrollment in 2008 included 37,768 students age 25 or older, which represented 49 percent of the student population. When those institutions in the Appalachian region are considered separately, the number of nontraditional students is even greater (KCTCS, 2009). Fifty-seven percent of all KCTCS students in 2008 were female, which was consistent with the female student population in community colleges serving the Appalachian region (KCTCS, 2009).
Nontraditional Appalachian Women Students

Appalachian women who are older than traditional students have unique educational needs (Lyons, 2007). Some theorists (Ferman, 1983; McInnis-Dittrich, 1995) have speculated that women are limited in both their work and educational activities by the need for flexibility due to family responsibilities. Older students confront barriers that are not traditionally part of the college experience (Lyons, 2007). Adult women are enrolling in community colleges at a high rate, but these students are not persisting through transfer to baccalaureate-granting institutions (DOL, 2007). Appalachian women who seek to earn a baccalaureate degree may experience barriers that are unique to their gender, life situation, and day-to-day environment (Egan, 1993). Women adult learners may not be aware of the personal resources that are important for postsecondary success, placing them at risk for dropping out before completing a degree (Johnson, Schwartz, & Bower, 2000). Furthermore, Wentworth and Peterson (2001) suggest that adult women students from lower socioeconomic backgrounds likely face “critical and perhaps very challenging identity concerns” (p.10). If Appalachian postsecondary institutions are to be successful in providing adequate avenues for adult female learners’ success and persistence to graduation, it is necessary that the experiences of Appalachian women be taken into account in the development of policies and programs.

The increase in the number of female nontraditional transfer students has largely not been reflected in the literature. One study (Donaldson & Townsend, 2007) found that only 1.27 percent of journal articles published between 1990 and 2003 focused on nontraditional students. The lack of acknowledgement of the impact of nontraditional transfer students has its roots, in part, in Clark’s classic use of the term “cooling-out”
which theorized that community colleges divert students who are less academically prepared (1960). It is important to note that Clark developed his theory in a time when few adults participated in undergraduate programs so his theory was based on a traditional student population. The lack of interest in nontraditional students has carried over into educational policy. Kasworm (2003) argues that it is essential that policy makers consider societal changes such as the re-structuring of the economic base and changing gender roles in developing higher education policy and programs.

Low socioeconomic Appalachian women, who tend to be represented by stereotypes in both the media and scholarly literature, have particularly received little attention to their needs (Tickamyer & Tickamyer, 1987). While the community colleges are reaching an increasing number of these students, Appalachian women frequently are not able to make the transition to baccalaureate granting institutions (Eller, 2008).

The successful completion of baccalaureate degrees by Appalachian women is important on many levels. On the micro level, the individual experiences enhanced self-esteem and lifestyle through the potential for higher earning power (Lyons, 2007). Women’s economic prosperity is related to academic achievement and those who have higher levels of education are more likely to be employed (Hyde & King, 2001). On a mezzo level, universities benefit from meeting their retention goals and increasing their graduation rates. Macro-systems also benefit from the increase in employment. Eller (2008) emphasized the “economic and civic benefits” (p.239) that are lost to regions outside of Appalachia when students are forced to leave the area to earn degrees. Economists have long held that educational attainment is an important factor in national and regional development. Social scientists, in part, attribute Appalachian social and
economic problems to low levels of school participation and completion rates (Shaw, DeYoung, & Rademacher, 2004).

**Gender Norms in Appalachian Culture**

There is a common argument in the literature that Appalachian culture emphasizes traditional gender roles (Lewis, Selfridge, Marrified, Thrasher, Perry, and Honeycutt, 1986; Dyk and Wilson, 1999) which result in Appalachian women being unable or unwilling to leave their homes to attend traditional four-year institutions. The issue of place-bound students is common within rural community colleges and may not be specific to Appalachia. Freeman (2007) found in her study of characteristics related to transfer persistence that employment and familial responsibilities combine to tie nontraditional students to place. Heller (2002) referred to this as a geographic factor which he defined as a student being unable to travel any distance to attend a postsecondary institution. Rural community college students have lower transfer and baccalaureate attainment rates (Freeman, 2007). Castaneda (2002) analyzed how transfer rates for students from rural community colleges differed from those from urban and suburban locations. She found that “none of the studies have addressed transfer rates directly as they differ by location of the community college...there appears to be a greater need for in-depth study given the lower attainment of community college students in rural settings” (p. 446). Additionally, students may be place-bound by the cost of transferring to a postsecondary institution away from their home area (Freeman, 2007).

The view that Appalachian culture influences the ways in which women experience postsecondary education has been presented primarily as a barrier within the literature. Lyons (2007) asserts the stereotypes of Appalachia impact the behaviors of
women students. She argues that, “because people living in Appalachia have succumbed to the outsiders’ negative view of the area and its inhabitants, low self-esteem, poor self-image, and a loss of cultural identity” Appalachian women experience mixed messages about enrolling and persisting in college (p. 21).

The assumption that Appalachian culture emphasizes traditional family roles may impact the multiple life roles experienced by adult students. Rural Appalachian women tend to value extended family networks and participation in mutual aid systems (Peterson & Peters, 1985). This population is influenced by both the cultural expectations and family expectations to maintain traditional gender role. One study concluded that Appalachian female women experience guilt due to “choosing school over family” (Egan, 1993, p. 272). The women in Egan’s (1993) study also expressed that role models from the Appalachian culture also encouraged them to pursue their degrees. They particularly identified parents and grandparents as support systems. In another study of Appalachian women, Lyons (1987) concluded that this population perceived a strong cultural influence to remain in the home and care for their families.

Helton and Keller (2010) conducted a qualitative study of the resiliency of Appalachian women based upon their cultural values. The women in this study identified challenges in their life experiences that included a patriarchal family system, poverty, geographical isolation, distance to schools, and experiencing discrimination in urban areas. These women also identified family support as a primary way of overcoming these challenges. Jones (1994) identified 10 traditions that comprise the values of Appalachian culture. These values are: (1) independence, self-reliance, and pride, (2) neighborliness, (3) familism, (4) personalism, (5) religion, (6) humility and modesty, (7) love of place,
(8) patriotism, (9) sense of beauty, and (10) sense of humor. These values may present both challenges and supports for women in their efforts to attain baccalaureate degrees. It has been suggested that Appalachian women can overcome challenges presented by cultural gender expectation through activities that empower them to address their own needs (McInnis-Dittrich, 1995; Oberhauser, 2005).

Family-centered culture and social standing have a historical base in Appalachia. The geographical isolation of mountain communities resulted in social structures that focused on family and near neighbors (Beaver, 1986; Walls & Billings, 2002, Russ, 2006). Each person in these isolated communities had a place and it was important that individuals didn’t “get above their raisin’” in order to maintain smooth community functioning (Russ, 2010). This family-centered social structure resulted in a predominantly patriarchal style with males traditionally being breadwinners and women maintaining subservient roles and being primarily responsible for being wives, mothers, and nurturers (Eller, 1982; Sellers, Satcher, & Comas, 1999).

**Conceptual Framework**

Linton (1936) noted that people occupy a status, but they play a role. The sociological significance of roles is that they lay out for people what is expected of them within a culture (Henslin, 2008). Role theory provides a focus on context, people, and their behaviors. According to Biddle (1979), “role theory distinguishes between individual behaviors, social activities, and the phenomenal processes that presumably lie behind them” (p. 5). In understanding the roles maintained by nontraditional female students in Appalachia, it is important to understand how this population perceives its role within the culture. Individuals tend to act according to the cultural norms of what is
appropriate and expected of them. As people’s lives and values change, new roles emerge or previous roles are re-defined (Fowlkes, 1987). Adult women students experience new roles and may be forced to change the ways they define and carry out their previous roles. The roles maintained by Appalachian women within the family may result in them delaying entrance into college, but managing these roles also may continue to be a part of their postsecondary experiences.

An increasing number of nontraditional women are enrolling in baccalaureate degree programs, while continuing to manage concurrent roles in their families, communities, and workplace (Schlossberg, Lynch, & Chickering, 1989). Hirsch and Rankin (1986) assert that women with children are the population at highest risk for role strain due to the demands of postsecondary enrollment. Many of these students are single mothers who are the sole support of their families or are co-contributors to the total income of their families. Role strain, a felt difficulty in meeting role demands (Goode, 1960), is experienced most intensely by women who maintain three or more roles (Grendelle, 1991). Homes (1998) found that the conflict between the role demands of motherhood and the demands of university-level study presented the highest degree of role strain.

Contradictory roles may result in role conflict (Thoits, 1983). Role conflict is defined as “simultaneous occurrence of two or more role expectations such that compliance with one would make compliance with the other more difficult” (Katz & Kahn, 1978, p.204). When individuals are motivated to conform to role expectations that conflict with other roles, the new role may become burdensome. Women students may perceive that their culturally prescribed roles are in conflict with their role as student, and
may feel unable to resolve this sense of conflict. Biddle (1979) offered support for this view and asserts that particularly when the new role requires large commitment of time or ability, the individual often experiences feelings of inability to complete all role expectations.

The conceptual framework of this study assumes that Appalachian adult women students have unique life situations that result in the need for postsecondary institutions to provide innovative models of educational delivery services. In addition to a discussion of women within the context of the Appalachian region, this study is framed by role theory that includes topics of multiple roles, conflict and support, and gender norms in Appalachian culture.

**Research Methods**

The purpose of this study was to examine the ways in which nontraditional-aged Appalachian women attending college as location-bound adults perceive the supports and challenges to baccalaureate attainment. This qualitative study utilized interviews with women who are pursuing baccalaureate degrees in nontraditional educational models within their geographical region. These interviews were framed by a companion study that provided an in-depth quantitative study of the population (Decker, Dykes, Phillips, & Preston, 2011). The use of multiple data sources provided a rich understanding of the experiences of Appalachian nontraditional-aged women who are location-bound students. Recommendations for how colleges and universities can provide access to baccalaureate programs for the target population of adult women students who may be unable to leave their home communities to continue their education are suggested.
**Research Questions**

The overarching research question that guided this study was how do nontraditional-aged Appalachian women who are location-bound perceive the supports and challenges they experience in baccalaureate studies? Sub-questions that were addressed are:

1. What do nontraditional-aged Appalachian women students perceive as institutional and personal supports in persisting to baccalaureate attainment?
2. What do nontraditional-aged Appalachian women students perceive as institutional and personal challenges in persisting to baccalaureate attainment?

**Research Design**

Qualitative methods of data collection were used to study the population of adult Appalachian women who have enrolled in baccalaureate programs that have not required them to leave their home communities. Interviews were utilized to explore the ways in which the study participants balance their multiple life roles with the demands of their postsecondary studies, to understand their perceptions of how Appalachian culture impacts them as students, and their perceptions of the ways in which educational institutions provide baccalaureate access to them.

The study participants were Appalachian women who have delayed college participation and/or have adult responsibilities that include family responsibilities, employment, and community ties. The participants were enrolled in a region-based program that allowed them to “transfer” to a baccalaureate program without leaving their home communities. These participants persisted in university studies into their senior year. Potential participants were identified through a companion study that relied upon
data gathered through KCTCS (Decker, Dykes, Phillips, & Preston, 2011). While there are many definitions of nontraditional students, the National Center for Education Statistics (NCES) defines any undergraduate who is 24 years of age or older as being nontraditional (2010). This definition is also utilized by the U.S. Department of Education for determining independent status for federal financial aid eligibility. Students who are under age 24 are considered to be “independent” and eligible for federal financial aid if they are married and/or have children (2010). Therefore students under age 24 with family responsibilities were included in this study as “nontraditional”.

Traditional-aged female students who are enrolled in baccalaureate programs within their rural Appalachian communities were included in this study in order to examine how the experiences and needs of older women differ from those of their younger counterparts.

Qualitative methods are appropriate when the research strives to understand and describe a topic when there has been a limited amount of prior study on the phenomenon or the researcher wishes to obtain the perspective of participants (Creswell, 2009; Maxwell, 2005; Royce, 2008). Although a sizable amount of research has been completed on the topic of transfer, these studies generally focus on traditional-aged students transferring from community colleges to traditional residential universities. A qualitative interview design was selected in order to provide a rich understanding of the experiences and perceptions of the participants. The focus of this type of design is to examine in-depth the experiences of the participants (Creswell, 2009; Royce, 2008). Lofland and Lofland suggest that this type of design is particularly appropriate when analyzing roles and behaviors associated with these experiences (1995).
In this study, narrative was used both as the method of inquiry and the object of interpretation. Narrative analysis allows for understanding how individuals make sense of their experiences through the stories they tell. Since little research has been completed to give voice to adult women students, a qualitative study that relies heavily on interviews to understand the experiences of these women is appropriate.

Descriptive statistics from a collaborative companion study (Decker, et al., 2011) informs this study by providing data about the population that enroll in alternative models of baccalaureate-level studies that are available within the Appalachian region of Kentucky. The use of multiple strategies is supported by Maxwell (2005) who notes “Qualitative data are not restricted to the results of specified “methods” (p. 79).

**Site Selection**

The selection of community colleges to be included in this study was based upon the primary criterion of serving only students who reside in counties which are designated as being in the Appalachian region and which partner with universities and or colleges to provide multiple baccalaureate degrees on their campuses. Three community colleges were selected: ACTC, BSCTC, and HCTC. All of these colleges partner with four-year institutions to provide multiple baccalaureate degrees. Three models of degree programs are featured in this study.

HCTC houses the University Center of the Mountains (UCM), a clearinghouse for baccalaureate programs offered in Southeastern Kentucky. The UCM serves primarily transfer students from HCTC. Courses for baccalaureate degrees from four-year institutions are offered both as traditional face-to-face classes and though ITV broadcasts. The three largest providers of baccalaureate degrees at UCM are Morehead State
University, Lindsey Wilson University, and Eastern Kentucky University. Each of these institutions has administrators who are assigned to the UCM on a part-time basis and faculty travel to the center for classes. This model was implemented in 2002 and was initially funded by each participating institution and has been financed since that time by coal severance funds which are made available through HCTC (CPE, 2006). The funding for UMC supports classrooms and offices, a center director, an administrative assistant, and a facilitator for classes offered through interactive television (ITV) (MSU, 2010).

All three of the colleges included in this study are sites for Lindsey Wilson College’s human services baccalaureate program. Lindsey Wilson College is a private college that is affiliated with the United Methodist Church. While the LWC campus is located in Columbia, KY, they also offer a baccalaureate degree in human services counseling in twenty-five locations, including the campuses of all Appalachian KCTCS-member colleges (LWC, 2010). This degree program is offered through weekend courses and relies heavily on adjunct faculty recruited from local communities to teach courses. LWC and KCTCS colleges have 2+2 agreements based on the AA or AS degree. All general education requirements are fulfilled by completing either of these degrees and one course in religious studies. All courses within the major are provided by LWC. Graduate students are employed part-time on each community college site to recruit and advise undergraduate students.

Finally, a third model for providing baccalaureate degree access within Appalachia Kentucky is regional university campuses located on the campuses of community colleges. These exist at ACTC and BSCTC and are offered by MSU (2010). This model evolved from the offering of courses within Appalachian communities in the
mid-1970s (Flatt, 1997). Complete programs are offered on the regional university campuses, primarily by full-time faculty who are either assigned to the regional campus or travel from the university located in Morehead. Other staffing includes full-time directors, administrative assistants, interactive television facilitators, and computer technology staff. Both campuses house program coordinators in education and social work, and the MSU-Prestonsburg houses a nursing coordinator (MSU, 2010). The regional campuses have individual 2+2 agreements with the community colleges for each available program that fulfills all general education courses and the first two years of foundational courses towards the respective baccalaureate degrees.

The regional university campuses rent their facilities from the community colleges. In Ashland, office space, ITV labs, and computer laboratories are located on the first floor of the ACTC library buildings and classrooms, conference rooms, and library services are located in other buildings located on the community college campus. In Prestonsburg, all MSU services are offered in a dedicated building on the BSCTC campus (MSU, 2010).

All of these models offer location-bound adult Appalachian women access to baccalaureate degree programs. The regional university campus models offers a variety of degree programs and comprehensive student services, the university clearinghouse model provides alternatives from several institutions and a variety of educational programs, the human services and counseling program offers flexible scheduling. Southeast Kentucky Community College was not included in this study because it only houses the LWC program which is represented at the other Appalachian community colleges in this study. Table 1 provides a matrix of the Appalachian community colleges
and the models that are available to students in each community college service area and the number of study participants from each model.

Table 3.1

*Baccalaureate Models and number of participants at each college*

<table>
<thead>
<tr>
<th>Baccalaureate Models</th>
<th>ACTC</th>
<th>BSCTC</th>
<th>HCTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Clearinghouse</td>
<td></td>
<td></td>
<td>1 - MSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 - LWC</td>
</tr>
<tr>
<td>Regional University Campus</td>
<td>9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Private College Human Services Degree</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Data Collection**

The study participants were women residents of the Appalachian region of Kentucky who graduated from ACTC, BSCTC, and HCTC with an AA or AS degree and subsequently enrolled in baccalaureate-granting institutions that offer programs for location-bound students. Nineteen women who were either age 24 and older or under age 24, but maintained adult responsibilities met the selection criteria. The participants ranged in age from 22 – 59 with a mean age of 34.8 years. An additional five women who were traditional aged were also interviewed. These participants ranged in age from 21 – 23 with a mean age of 22 years. The number of study subjects was determined by the response of those invited to participate. Padgett suggests that there is no answer to the appropriate number of participants “because the emphasis is on quality rather than quantity, qualitative researchers sample not to maximize numbers, but to become
“saturated” with information about a specific topic” (1998, p. 52). Creswell (2009) recommends that the number of participants in an interview study should range from 5 to 25.

Participants in this study took multiple paths in the postsecondary educational arenas. They were asked the year in which they first enrolled in college. Their responses ranged from 1970 to 2008. Nearly all of the participants had experienced one or more breaks in their educational participation. Two of the participants had initially enrolled on residential campuses as traditional-aged students, but dropped out during their first year. Many of the nontraditional students took classes part-time for many years, often swirling between institutions. Some of these participants related that family and work responsibilities kept them from enrolling full-time and completing degrees. One participant reported her college experiences began in 1970; “I went to the community college right after high school, but I got married and started working, then I had children…there wasn’t time for school”. After her job was eliminated, she returned to school five years ago; “I started back to school and had a work study position. When I finished my AA, I was hired by the regional university and have been able to go back to school. I will graduate this year and probably start graduate classes right away.”

Some participants relate that they have continuously enrolled since their first semester. One participant who dropped out of high school to marry related that she completed her GED at age 18 and has been in college since that time. A 59 year old student enrolled at the community college after experiencing a divorce and the loss of her job and will complete her baccalaureate degree after 9 semesters.
Potential participants were initially contacted by mail and invited to participate in this study. Only two students responded to this mailing. In order to make initial contact with potential participants, it was apparent that I needed to establish myself as an insider (Clingerman, 2007). I did this through the use of gatekeepers within the colleges and universities in which individuals were enrolled. Faculty members and campus administrators from each baccalaureate institution were contacted, provided with the study criterion, and asked to announce the need for study participants. Those interested in participating were provided with my contact information. I engaged in telephone conversations with all students who contacted me and explained the purpose and process of the study. Interviews with those who wanted to participate were then scheduled on their home campuses. Of the potential participants who participated in the phone calls, only two women did not participate: one could not arrange her work schedule to allow for an interview and another cancelled due to the illness of her child.

A total of 24 women were interviewed (see Table 1). The women resided in thirteen Appalachia Kentucky counties; Boyd, Breathitt, Carter, Floyd, Greenup, Johnson, Knott, Lawrence, Lewis, Martin, Magoffin, Perry, and Pike. Table 1 identifies the number of participants who graduated from each community college and the educational model in which they enrolled.

At the onset of each interview, the participants were asked to complete a brief demographic form that verified that they met the criteria of the study and to read and sign the participant consent form (See Appendix A). The demographic data collected include age, marital status, number of children, financial status based on qualifying for Pell grants, ethnicity, university major, and the year they initially began postsecondary
studies. The participants also identified a pseudonym for the study at this time. These pseudonyms are used in presenting the interview results. This allowed for the protection of participants’ privacy in reporting the study results.

An individual student interview protocol was utilized to guide the interviews. This protocol consisted of semi-structured questions that encouraged the participants to share their life experiences. These included items such as, “Tell me about your roles in your family and community”. The use of a semi-structured protocol allows for steering the interview towards the stated research questions, while allowing the participants to add information which may not have been considered by the researcher (Schmitigal, 2009). Items were included to illicit information about the participants’ experiences and perceptions about being postsecondary students in Appalachia, the multiples roles they maintain and how these provide supports and/or challenges to their educational pursuits. The protocol also included items that encouraged participants to reflect on their experiences as students throughout their lives, their current life situations and the roles they play, and their relationships within their families and communities. For example, the women were asked to describe how their educational experiences have affected their roles in their families and communities. The guiding questions were broad in nature in order to elicit a narrative (Royce, 2008). Each interview lasted approximately two hours.

**Data Analysis**

Data analysis occurred simultaneously with data collection. This allowed for the researcher to make adjustments throughout the study, is consistent with qualitative research standards, and allowed for opportunities to test emerging concepts and themes (Collins, 2008; Merriam, 2002). The analysis of data involved accurate transcription of
interviews and adequate maintenance of field notes (Miles & Huberman, 1994). The interviews with the students were analyzed through a process of reading the interview transcripts and research field notes and identifying meaningful units of information. Narrative analysis prioritizes the ways that respondents tell stories that represent the meaning they make of their experiences (Schmitigal, 2009). Interview transcripts were analyzed for storied explanations as units of analysis. These units of information were then categorized in the coding process using the research questions as a guiding frame (Miles & Huberman, 1994; Royce, 2008).

Validity Strategies

Creswell (2009) recommends that qualitative researchers utilize multiple validity strategies. He identifies these as: (1) triangulation of data sources, (2) member checking to determine the accuracy of the findings, (3) use of rich, thick descriptions to convey findings, (4) self-reflection to clarify research bias, (5) presentation of discrepant information that runs counter to themes, (6) prolonged times spent in the field, (7) peer debriefing, and (8) use of an external auditor to review the project (pp. 191-192). All of these strategies were employed in this study. Participants were emailed the transcripts of their interviews for review; the findings of the study were compared with the findings of companion studies in which college administrators, faculty, and staff were interviewed. An external auditor who is familiar with the target population and is a qualitative researcher reviewed the study.

Self-Reflection/Personal Interest

I have held several positions over the past 14 years in Appalachian postsecondary institutions, both at the community college and university levels. These have included
student affairs officer, faculty, and administrative positions. These experiences have
provided me an awareness of the unique educational needs of adult women transfer
students. Additionally, I have had the opportunity to observe the educational process of
this population during and after their transfer from a community college to a regional
university campus. My experiences allow for insider access that would not be available to
an outside observer (Beebe, 2001). The use of an interview design for this study is
consistent with my background as a licensed clinical social worker. My experience in
interviewing and assessment allow me to establish the necessary rapport with research
subjects and to understand the lived experiences of the participants. (Creswell, 2009).

Discussion of Findings

The purpose of this study was to examine the ways in which
nontraditional-aged Appalachian women attending college as location-bound adults
perceive the supports and challenges to baccalaureate attainment. Firsthand accounts of
their lived experiences were obtained and analyzed to explore their experiences in
balancing multiple roles and their perception of how Appalachian culture impacts their
role of students, and how the available models for providing baccalaureate services
within their home communities work.

Several themes emerged from the interviews. These include: (1) Adult women
students in Appalachia are challenged and supported by the multiple roles they maintain
within the particular context of their rural mountain communities; and (2) Postsecondary
institutions provide both supports and challenges to the target population. These are
discussed thematically, using participants’ stories as illustrations.
Multiple Family Roles

The participants in this study maintain multiple family roles. One participant remarked, “I’m a cog in the wheel: I keep the family going. I help my husband in his work as a pastor, do for the kids, and work the family farm. I strongly value my family.” Multiple family roles present a confusing mix of supports and challenges for the participants. The students with young children were most likely to express that parenting roles present challenges than were students with older children. All but two of the women in this study maintained caretaking roles in their families.

One study which explored Appalachian women’s views of their role performance in families found that the participants tend to take for granted their participation in traditional family roles and are completely absorbed by the details of family life, particularly in the area of child rearing (Fiene, 1991). This view was expanded upon by Egan (1993) who found in her qualitative study of Appalachian women enrolled in postsecondary programs, that women not only were influenced by the cultural expectations to maintain traditional gender roles, but also by the expectations of their families. An emergent theme in this study was that the women in the study felt guilty due to “choosing school over family” (p. 272). The women in this study also expressed that role models from the Appalachian culture also encouraged them to pursue their degrees. They particularly identified parents and grandparents as support systems (Egan, 1993).

Family Roles as Supports

Most of the married women identified their spouses as being sources of support for their educational participation. This support system emerged as two themes: spousal emotional support and spousal financial support. One participant related, “My husband
encourages me to study – he tells our friends how smart I am. He’s really proud that I’m going to earn my degree.” Another participant discussed the sacrifices her husband has made for her to attend college. “My husband has been extremely supportive – he stayed in a job he hated so I can finish school”. Among the married participants, only one participant’s husband had completed a baccalaureate degree. Several participants related that their spouses had completed some postsecondary classes and four reported that their spouses are currently enrolled in some type of degree or technical training program.

Many participants also identified their children as being sources of support. One mother of young children relates that she is a substitute teacher at the elementary school where her son attends kindergarten. She reports feeling proud when she hears him tell his friends, “That teacher is my mommy”. This participant relates that she views her educational achievements as having a positive impact on her children: “I know I’m changing their future – I’m setting an example for them”.

All of the participants in their 40’s and 50’s related that their children were grown, although a number of these women still play an active role in the day-to-day lives of their adult children. One woman began her course work at the community college with her son and both transferred to the same university. This 47 year old studied on the regional campus and her son on the residential campus. She relates that she and her son anticipate graduating together. Another mother relates that her two adult children have dropped out of college and that she hopes to encourage them to complete college by setting an example for them. Another participant who is 59 years old relates that her two adult children live out of the area, but she views them as an important source of both
emotional and financial support. She reported, “They’re so proud of me and are always encouraging me. My daughter and son-in-law even bought me a car.”

In addition to child care, families provide other types of supports. Several participants noted that their families help them financially, often providing housing for them. This is not limited to their parents, but the women also may receive assistance from grandparents or other extended family. The oldest participant in this study related that four years ago her husband left her for another woman and she lost her job due to her employer’s financial problems. She moved in with her 83 year old mother. This participant related that, “My mom and I take care of each other. There are things she can’t physically do any more, so I help her, but she really does much more for me. I’m diabetic and she makes sure I stay on my diet and she always has my work uniforms ready for me.”

**Gender as Challenges**

One particular characteristic frequently attributed to the Appalachian culture is the emphasis on male domination and traditional gender roles. The culture tends to include male dominated families with females in a “mother-protector” (Egan, 1993, p.267) role that involves negotiating systems to gain benefit for their families. When considering the process of higher education for this population, it is impossible to separate the cultural expectations from the educational needs of the students. Several women identified male dominance as a challenge to female students in Appalachia Kentucky. A student from Lewis County related:

Men in Appalachia think they’re the boss: Dad always had to tell us what to do – men control everything. I swore that wouldn’t happen in my family, but my
husband was jealous and made me drop out of high school. In rural counties it’s horrible. There’s still that barefoot and pregnant mentality. I use to work with young abused women and lots of them weren’t even allowed to drive, much less go to college.

Four of the participants reported that they married while in high school, but five others related that they married a short time after graduating from high school. Several of the participants related that early marriage was a part of the culture when they were adolescents. One 46 year old participant related, “My husband and I dated throughout high school and married as soon as we graduated. That’s what my age did – you married and started your family.”

Gender bias is related to the culturally defined expectations of how women and men should relate within society. When societal norms favor one gender over another, gender bias occurs (Smith & Reed, 2009). Appalachian stereotypes of women continue to be accepted in the popular media and may impact women in their occupational and educational roles. Images of Daisy Duke and Granny Clampett may continue to limit women as they seek to pursue higher educational goals. The participants in this study were all enrolled in traditionally female fields of study. None of the students voiced concerns about the degrees offered in their communities, even though the degree programs are limited and include no math or science degrees. The participants were enrolled in classes leading to degrees in elementary education, special education, middle school education, social work, human services, nursing, and university studies. Several women did voice that they were concerned that their degrees would limit them to relatively low-paying jobs.
Parenting as Challenges

Difficulty with child care was a recurrent theme in this study. Nearly all of the participants who have very young or school-aged children related that they occasionally have to miss class because of child care. Only the ACTC campus offers a daycare program for the children of students and this program closes before evening classes begin. One participant relates that this is her only child care option: “There’s no one in my family to help me. If my daughter is sick and can’t go to daycare, I have to miss school and work to take care of her – it really makes it hard.” Most of the mothers of young children receive help with child care from their extended families. Several of the participants who had young children responded by discussing the importance of having friends and relatives residing nearby to help with child care in their ability to attend school. One woman related that her father-in-law who lives next door to her watches her children while she attends school and works and several other participants indicated that their mothers care for their children. One single mother with two elementary school-aged children said:

I could never attend college in my mother wasn’t able to help with the kids. I don’t have to worry about day care or if they’re sick who will watch them. I wouldn’t have this kind of help if I moved to a city to get a degree.

In contrast, another mother with a small child relates that she receives little emotional support and no financial support from her family. She is a divorced from the father of her two-year old and she relates that he is incarcerated for a drug conviction and has no contact with her at this time. She stated, “I have no life – I go to work, go to class, and take care of my daughter. No one helps me, so I do it all”.

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Participants with older children also expressed that their parenting roles present challenges to their roles as students. One mother related that it is difficult to balance her children’s activities with her own studies. She related, “I don’t want my children to have to give up their activities because of me. I usually take them to their ballgames and bring my books along.” One mother of adult children expressed the stress she feels: “My daughter has problems with drugs and I need to help her. I watch her children as much as I can, but I have trouble dealing with her behavior. She moves in and out of my house.” Several of the older participants have young grandchildren and most of these women reported that they provide some level of care for these children.

The Challenge of Extended Families

Six of the participants indicated that they provide care for family members outside of their immediate families, six of the older participants related that they have at least partial responsibility for caring for adults. One woman related that her husband has a serious disability and needs much care. The same participant also cares for a terminally ill aunt. She admits to feeling overwhelmed by these responsibilities and the demands of her studies:

I take care of my husband and my aunt who has brain cancer. I have to take care of all her business and take to chemotherapy and for doctors’ appointments. I help my parents and I take care of my grandchildren as much as I can while their mother goes to school.

When asked about how these responsibilities affect her role as student, she related that she enrolled in a program that meets only on Friday evenings and Saturday
mornings; “This isn’t really the degree I wanted, but it’s the only way I could manage all of my other jobs”.

Other studies support the notion that extended family networks, extensive commitment to relatives and participation in mutual aid efforts are highly valued within the Appalachian culture (Peterson & Peters, 1985, Fiene, 1991). Even though the women in this study voiced feelings of being overwhelmed, none indicated that they felt able to give up their caretaking responsibilities.

**Work as Support**

Fourteen of the women who participated in this study reported that they work either part- or full-time. The types of jobs held by these participants are often low paying, but are generally flexible enough to accommodate class schedules. One of the participants is a student worker on her campus. Two other students are employed full-time at either the community college or the university which they attend. One student is an LPN who works at a community mental health crisis center in the evenings. Other types of jobs held by the participants include Wal-Mart clerk, restaurant worker, gas station attendant, substitute teacher, traditional Appalachian musician, and nursing assistant at a nursing home. One 59 year old student holds two jobs: she works at McDonalds and also tutors for the community college from which she graduated.

Several students identified their employment as a support. One participant related that she receives much support from both her jobs. “The customers at McDonald’s brought me presents when I graduated with my associate degree”. She further related that both of her jobs provide her experience that she can apply to her social work degree program:
At McDonalds I have met so many people who have needs – I know women who prostitute themselves for drugs and homeless people come by almost every night. I was unaware of these people in the community until I started working nights. I really enjoy working with the community college students. I can help them at the tutoring center; some of them just need encouragement.

The participant who is employed at the crisis center to dispense medication in the evenings also sees this as a link to her future career. She reports that she plans on completing her senior internship at the mental health center where she is employed. A participant, who is an elementary education major, is a substitute teacher. She relates that she hopes her work is a “foot in the door” for her future career and that the teachers at the school are very supportive.

**Work as Challenges**

All, but one employed participant, identified work as a challenge to their student roles. This often results in a sense of being overwhelmed by conflicting role demands (Epstein, 1987). Most of the working women in this study related that they often have to negotiate for work schedules that allow them to attend class each semester. They also report that they fairly frequently are called in to work during non-scheduled hours, presenting a challenge to class attendance. One single mother who works full-time at a gas station reports that her job prevents her from spending enough time with her child and limits her studying time. One 46 year related that during her first year at the community college, she was employed as a laborer at a brickyard; “I would leave the brickyard and go straight to night classes – I didn’t even have time to shower or change clothes. I was always tired, but I knew that getting an education was the only way I
would ever get out of physical labor.” Several of the women expressed frustration with the limited jobs available to them. One participant who is a nursing assistant related, “I know I’m lucky to have a stable job, but it’s hard work – I wipe people’s butt so I can earn a degree.”

Specific behaviors are expected of certain roles and as individuals engage in multiple roles, it often presents a challenge for them to successfully navigate the demands (Swanson, Broadbridge, & Karatzias (2006). Nontraditional-aged students, unlike traditional-aged students, often have multiple roles that demand their attention (Home, 1993). The demands of managing multiple roles often results in an increased level of stress for nontraditional students (Backels & Meashey, 1997) and also may affect the academic experiences of these students. The support that nontraditional students receive as they juggle multiple roles may be determining factors in their success or failure. This includes both emotional and instrumental (household help, financial help) that is available to the student (Carney-Crompton & Tan, 2002). While many studies suggest that role conflicts can be associated with negative emotional responses (Backels & Mashley, 1997; Evans, 1996), some studies have found that individuals who successfully manage multiple roles experience a sense of well-being (Johnson & Robson, 1999).

**Community as Support**

All of the nontraditional-aged participants in this study 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. Reva, a 46 year old student at a regional university campus stated:

Community as Support
I love my life – I’m thankful to live in a rural area. The people have strong values and it’s a great place to raise kids. I lived in Ohio for five months when I first married and I hated it – people weren’t friendly and I felt isolated.

The emphasis on strong ties to place and community are viewed as being characteristics of Appalachian culture (Helton & Keller, 2010, Jones, 1994). The participants in this study frequently spoke of their commitment to their home communities and to their families as being a single Appalachian characteristic. Valuing home and family is considered to be an Appalachian cultural characteristic. Lyons (1987) found that Appalachian women often perceived a strong cultural influence to remain in the home and care for their families. Becky, a 23 year old married woman with two small children illustrated this: “I never want to move away. Someday I want to travel and visit other places, but I’ll always come home”. The same participant also expressed that she is able to attend school because her in-laws who live next door to her help her care for her children. Her husband lost his job and now drives a long distance to another county to work, but she reports that the family won’t move nearer his work because “it’s more important to live at home, close to family.”

The primary social role identified by the participants was activities within religious organizations. Eight participants related that they have no religious affiliation and nine women related that they are very active in their churches. All of the participants who reported religious affiliations identified themselves Christians. Of the nine who related they are very active in religious organizations, one was Catholic, one Jehovah Witness, one Methodist, and the rest identified themselves as various types of Baptists. The participants identified their church activities as being supportive, although one
nontraditional-aged woman who is married to a Baptist minister, related that she often feels overwhelmed by her church work that includes driving children to church, leading a study group, providing secretarial work, and teaching Sunday school. Two participants reported that their church participation was a primary reason they entered college. A 23 year old student related that she realized that she would like to become an elementary school teacher after teaching Sunday school. A 59 year old student was employed by her parish until a second priest was added to her church and took over her responsibilities. She relates that the church has been very supportive with various members helping her with tuition and books. Her plans are to complete her degree and work for a church-related agency.

Community as Challenges

Study participants identified poverty as a challenge in Appalachia, but also expressed hope that their own educational attainment would provide the means for improving their personal economic situations. Sharon, a 56 year old woman who is employed full time while working towards her degree, summed this up: “After completing my AA and getting a job at the college, I was able to better provide for my family. I have hope that this will continue”. The lack of available jobs in the region was also a poverty-related theme that emerged from this study. Several participants discussed the loss of good jobs in their communities due to the changing economy. A 59 year old woman remarked, “When I was growing up all of the men worked at the plants – these were good jobs, but they don’t really exist anymore”.

Several study participants voiced concerns that even after they finish their degrees, they will not be able to find jobs that will allow them to re-pay their student
loans. When asked how this possibility will impact their future plans, only two of the participants indicated that they would move from the area to find employment. Most of the participants voiced that poverty limited their ability to leave or commute to programs outside of the regions where they reside.

Poverty, as a social problem, has deep historical roots within the Appalachian region. Sarnoff (2003) noted that, “Since the Civil War, the history of Central Appalachia has been one of exploitation: of land and other natural resources, and especially of people.” Widespread poverty continues to exist within the region. Four of the poorest 5 counties in the U.S. are located in Appalachia Kentucky (U.S. Census, 2010). All of the study participants voiced an awareness of the problems with poverty in the area. Pam, a 47 year old married woman, said, “People think I’m crazy for going to college – I don’t think I’ll find a good job here.” Pam also related that her family finances are stable based on her husband’s disability benefits.

The dependence of Appalachian residents on public benefits is a reoccurring theme in the literature (Duncan, 1999, Janofsky, 1998, Sarnoff, 2003). Seventeen of the participants, including the three younger students with nontraditional characteristics, receive need-based financial aid to fund their studies. Five of the students interviewed are attending school in partial requirement for receiving public assistance funds. The students who receive these additional funds were enrolled in Ready-To-Work programs through KCTCS institutions and then transferred into the STEPS program at MSU. Similar programs are not available to LWC students. One student who participates in the program related, “The STEPS program is a big help – I get paid to work on campus and I get help paying for day care”. Several students, when asked about this program, didn’t
know that it existed. This indicates a need to improve communications and referral services for female students with children. In Central Appalachia, there is a high rate of disability beneficiaries. This is in part related to the work and environmental risks related to mining and manufacturing (Duncan, 1999, Janofsky, 1998, Sarnoff, 2003). Only one nontraditional student discussed her family’s dependence on disability assistance. She related that her husband was seriously injured in a mining accident and that this was a major motivation for her to enrollment in college. Until the time of his accident, she had been a full-time mother, but now she needs to work to help support the family.

Three participants related that they feel socially isolated, in part, due to their postsecondary pursuits. One twenty-seven year old woman related that she is involved in no social activities outside of classes and work, does not belong to any student organizations and does not socialize with classmates outside of class. Another participant, a forty-six year old woman, also reports that she doesn’t have time for maintaining social relations; “After I started school, I lost contacts with all my friends. The only people I see are my family.”

**Institutional Supports and Challenges**

The participants in this study were all enrolled in traditionally fields of study. None of the students voiced concerns about the degrees offered in their communities, even though the degree programs are limited. The participants were enrolled in classes leading to degrees in elementary education, special education, middle school education, social work, human services, nursing, and university studies. Several women did voice that they were concerned that their degrees would limit them to relatively low-paying jobs. Six participants indicated that they are working towards Bachelor of University
Studies because they can complete it faster than a discipline specific degree. They also cited flexibility in scheduling classes as a major reason for pursuing this degree.

Seventeen of the participants, including the three younger students with nontraditional characteristics, receive need-based financial aid to fund their studies. Five of the students interviewed are attending school in partial requirement for receiving public assistance funds. The students who receive these additional funds were enrolled in Ready-To-Work programs through KCTCS institutions and then transferred into the STEPS program at MSU. Similar programs are not available to LWC students. One student who participates in the program related, “The STEPS program is a big help – I get paid to work on campus and I get help paying for day care”. Several students, when asked about this program, didn’t know that it existed. This indicates a need to improve communications and referral services for female students with children.

A theme that emerged in this study was the participants’ perceptions that advising is a significant factor in succeeding in the postsecondary arena and in the amount of time that it takes to complete a degree. The satisfaction with advising at community colleges varied greatly among the participants and among the various institutions, generally expressed much greater satisfaction with the advising process at the four-year institutions. One 37 year old participant related, “The advising at the community college was awful: I felt like no one wanted to help me. When I transferred to LWC, the advising was much better. Sometimes my advisor doesn’t follow through with what she promises, but at least I know what classes I need to graduate.” Another participant verbalized similar experiences; “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.” In considering her advising at the university, she expressed that she had much stronger advising; “My university advisor is very helpful – she found ways to help me finish my degree faster.” Another common theme that emerged about community college advising was the tendency for advisors to have students enroll in classes that they didn’t 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 didn’t explain to her that she would need more than 40 hours of upper-level courses to earn a baccalaureate degree. Students who enroll in excessive hours at the community college often run the risk of running out of financial aid. A companion study to this study (Decker, Dykes, Phillips, Preston, 2011) found that students who complete more than 80 hours at the community college are less likely to persist to baccalaureate attainment than those who transfer fewer hours.

**Implications for Practice**

This study of location-bound nontraditional students provides a platform for understanding the perceived experiences of adult women student who transfer from community colleges to region-based baccalaureate programs. Community college and four-year colleges and university administrators can use these findings to develop and implement programs and policies that will encourage persistence among this growing student population in Appalachia Kentucky. Educational professionals can address the identified challenges by building on current sources of support and developing new programmatic sources of support.
Findings of this study indicate that there is a significant need for increasing the types of baccalaureate programs offered within the Appalachian region. The current programs are primarily offered in the fields of public education and social work/human services. While these are classified as fast growing occupations, an expansion of degree programs that meet the changing needs of the Appalachian region is needed. The expected fastest growing occupation field in the region is in the health care industry (Workforce KY, 2011). The only available baccalaureate degree offered in health care-related areas in Appalachia is the Bachelor of Nursing offered on the BSCTC campus and online at ACTC. Other potential degree programs such as health care administration and imaging science should be investigated.

Study participants expressed fear that the degrees they are pursing may “not be worth” the efforts, sacrifices, and financial costs they have invested. A companion study to this study (Phillips, 2011b) suggests that both associate and baccalaureate degrees must meet the needs of the local and regional business and industry if graduates are to be successful in the transition from the postsecondary arena to the workforce. This coupled with the student concerns should motivate postsecondary administrators to re-evaluate current degree offerings and maintain ongoing support for programs that specifically are needed in the Appalachian region.

The participants in this study identified advising services at the community college as presenting significant challenges for them in baccalaureate attainment. It is recommended that the delivery of advising services be re-visited. The students specifically identified being misadvised as to lower-level courses needed for their baccalaureate programs and enrollment in unnecessary classes as being problematic for
them. This indicates a communication breakdown between institutions. It is recommended that a system for transfer advising between institutions be implemented. It further is recommended that based on the results of this study there is a need for advisors to better communicate the availability of specific programs and services for students.

Another problem identified in this study was the lack of available childcare. Only the ACTC campus offers these services for students. It is recommended that the development of childcare programs with hours that coincide with postsecondary class schedules be investigated. These programs also could serve as the setting for laboratory experiences for both community college and university education students.

**Limitations and Recommendations**

A limitation of this study was that it only considered students who had successfully transferred from the community college and persisted into their senior year at baccalaureate-institutions. A future study considering women who aren’t successful in transferring or persisting in their educational pursuits would add important information about this population and the factors that lead to successful completion of the baccalaureate degree. Additionally, this study only considered the perceptions of students who were location-bound. There is a need for further study to identify the between adult students who transfer to traditional residential institutions and those who transfer to regionally-based programs in their home communities in terms of persistence and perceived needs.

This study assumed that, based on the literature, Appalachian women are a unique group with distinct characteristics that result in unique postsecondary educational needs (Helton & Keller, 2010; Lyons, 2007). In order to further support the assumption that
gender differences exist within the population of adult Appalachian students who are place-bound, it is recommended that a similar qualitative study be conducted with male students. This would strengthen the argument that gender differences exist within Appalachian culture and that these cultural norms impact role expectations of women who are pursuing baccalaureate degrees.

**Conclusion**

A growing demand exists in rural areas to meet the needs of adult female students who cannot leave their home communities to pursue a baccalaureate degree. Community colleges are currently experiencing significant growth with President Obama’s focus on the expansion of these institutions and 61 percent of these students are women (American Association of Community Colleges, 2011). The transfer mission of these institutions is important in meeting the state and national goals of increasing the number of baccalaureate degree holders. In underserved areas such as Appalachia Kentucky, postsecondary institutions are challenged to expand existing and develop new alternatives to provide increased educational access to nontraditional female students. The educational needs of this population have been largely ignored in the literature. This study helps to fill this gap through exploring the perceived experiences and needs of this growing population and may serve to spur additional research that focuses on this student population and the institutions that serve them.
Appendix F

Consent to Participate in a Research Study

TITLE OF STUDY

The Influences of Multiple Roles and Cultural Norms on the Baccalaureate Persistence of Location-Bound Nontraditional Appalachian Women Students

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

You are being invited to take part in a research study about the ways that nontraditional-aged Appalachian women attending college as location-bound adults perceive the supports and challenges to baccalaureate attainment. You are being invited to take part in this research study because you are a female graduate of an Appalachian community college and are pursuing a baccalaureate degree in your home area. If you volunteer to take part in this study, you will be one of about 30 people to do so.

WHO IS DOING THE STUDY?

The person in charge of this study is Nancy Preston, 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 Amber Decker, Michelle Dykes, and Christopher Phillips.

WHAT IS THE PURPOSE OF THIS STUDY?

By doing this study, we hope to learn how Appalachian culture and the maintenance of multiple life roles affect adult female student in their pathway to the baccalaureate degree.

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

Only female students who are graduates of Appalachia Kentucky Community and Technical Colleges and who are enrolled in baccalaureate degree programs in their home region will participate 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 community college campus from which the participants graduated. You will need to come to the designated place on campus one time during the study. Each visit will take approximately one hour. The total amount of
time you will be asked to volunteer for this study is one hour during the month of November, 2010, December, 2010, or January, 2011.

WHAT WILL YOU BE ASKED TO DO?

During the one hour interview, you will be asked to reflect on your educational experiences and your life experiences as they relate to your role of student. After the completion of your interview, the researchers will compile the major themes that emerge from the interview responses of all of the participants.

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 educators better understand the needs of non-traditional women as they participate in postsecondary educational programs.

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. As a student, if you decide not to take part in this study, your choice will have no effect on your academic status or grades.

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. You will select a pseudonym prior to beginning your interview. Any reference to your specific responses will use this pseudonym and no other identifying information will be used.

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, Nancy Preston at n.preston@moreheadstate.edu or 606-327-1777. 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


Jones, B. N. (2010, September 13). Interview with the executive director of regional campuses, Morehead State University [Personal interview].


Chapter 4

Recruiting Marginalized Participants into Research: Reflections on a Study of Appalachian Women

“Mountain people are the last group in America it is acceptable to ridicule. No one would stand for it for a minute if you took any other group – Native Americans, Hispanics, women – and held it up as an example of everything that is low and brutal and mean.”

-Gurney Norman

A recent collaborative study of the institutional and student characteristics of successful community college transfer and persistence in Appalachia Kentucky resulted in a team technical report that supported four individual studies (Decker, Dykes, Phillips, & Preston, 2011). One of the research projects was a qualitative study of nontraditional women who were completing baccalaureate degrees located in their home communities (Preston, 2011). This study utilized interviews with participants who were completing upper-level courses on or near the campuses of the community colleges from which they had earned either AA or AS degrees. A major challenge in completing this study was recruiting Appalachian women as participants. This paper focuses on the factors that may have resulted in these women being reluctant to participate and details how these obstacles were addressed in the research process.

The Appalachian region of Kentucky has a long history of severe and persistent poverty. In several counties in this geographical area, more than 40 percent of the population lives in poverty (United States Department of Agriculture (USDA), 2008). The poorest segment of this population is single women with children (Cseh & Ziliak, 2009). Appalachia Kentucky also has one of the lowest rates of educational achievement in the country. 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, however, have only single-digit percentage rates of baccalaureate degree holders (Kentucky Council on Postsecondary Education (CPE), 2008).

The qualitative study that focused on adult female students in Appalachia Kentucky provided a foundation for understanding the personal and institutional experiences of this population in the context of their regional cultural and educational environment. This population has received little attention in terms of their specific needs and they tend to be represented by stereotypes in both the media and in scholarly literature (Tickamyer & Tickamyer, 1987, Lyons, 2007). A challenge to the study was gaining access to the target population in the recruiting stage of the research. Strong arguments can be made that Appalachian women are a marginalized population and that researchers studying this group utilize culturally competent strategies.

**Review of Literature**

The recruitment of underrepresented populations in qualitative research presents unique challenges. The issue of participant recruitment has a profound impact on the success of a research project. The role of the researcher in this process is particularly important when the target population is difficult to access. A review of literature reveals that Appalachian women can be defined as a marginalized population and, as such, it is important to understand the context of their regional cultural and educational environment. Additionally, literature that considers research with marginalized populations can be applied to this population. An essential consideration is the insider-outsider role of the researcher.
Defining Marginalized Populations

Marginalized groups have been defined as those sub-groups within a population whose members have been denied positions of power and symbols of economic, religious, or political power (Scott, J. & Marshall, G., 2005). Members of marginalized groups frequently are excluded from the benefits of mainstream society. Marginalized populations are often identified in terms of racial, ethnic, and/or cultural differences from the predominant social system. The American Psychological Association (2002) identified 10 groups who can be considered special populations: different age groups, racial groups, gender groups, ethnic groups, religious groups, sexual orientation groups, groups of different national origins, ability groups (persons with disabilities), language groups, and socioeconomic groups. While not identified specifically in this list, place of residence may be inferred (Dorsey, 2004). The Appalachian region is more sparsely populated and has more severe poverty than other areas of the United States (Dorgan, Hutson, Gerding, & Duvall, 2009).

Marginalized populations are underrepresented in research for a variety of reasons. Clingerman (2007) posits that investigators generally have a physical and psychological distance or disconnection from marginalized groups. This distance may result in mistrust that prevents the researcher from gaining access to marginalized individuals in the recruitment process (Collins, 1986). Among marginalized groups, mistrust is a primary barrier to recruitment of research participants. The perception of the researcher as having a different status or background than potential participants results in feelings of mistrust. The academic language and formality of Institutional Research Board (IRB) -approved consent forms clearly identifies the researcher as being different
from the potential participants (Boulware, Cooper, Ratner, LaVeist, & Powe, 2003, Johnson, Saha, Arbeaez, Breach, & Cooper, 2004). The initial contacts with members of the marginalized population to be studied are frequently characterized by academic formality, even if the researcher has some characteristics as an insider within the population.

**Philosophical Views to Research with Marginal Groups**

While the philosophical views of researcher are not usually articulated, they greatly influence the practice of research. The advocacy/participatory worldview that focuses on the inclusion of marginalized populations or addresses social justice issues emphasizes the role of research participants as collaborators in understanding the culture or issue (Creswell, 2009, Kemmis & Wilkinson, 1998). This philosophical approach, especially when applied to qualitative interviews, suggests that a level of trust between the researcher and participant is essential. It further implies that the function of research is not only to produce knowledge, but also is “a tool for the education of consciousness as well as mobilization for action” (Gaventa, 1991:121-122.).

Particularly in qualitative research which focuses on understanding applied problems of practice, there must be a level of trust and respect between the researcher and the participant. In the traditional positivist research approach, the researcher’s interpretation of data was emphasized and the experiential knowledge of participants was discounted (Wallerstein, 1999). This results in devaluing the knowledge and voices of members of marginalized group being studied and in application, removes the power of the population to impart information (Van der Riet & Boettiger, 2009). More current approaches to research emphasize the importance of the lived experiences of the
participants and their value in promoting change to practical areas of practice (Chambers, 1994).

In the study of Appalachian women, the knowledge production focused on an understanding of the experiences and perceptions of adult female students. The knowledge gained was used in the development of a comprehensive technical report that not only explored the common findings of four companion studies, but also provided recommendations for increasing and improving postsecondary educational services in Appalachia Kentucky.

**Appalachian Women as a Marginalized Population**

It has been observed that there are still acceptable prejudices in the United States. The prejudices toward the Appalachian region often go unchallenged. Villanueva stated, “There’s a racialization to Appalachia…the color without a name” (2006). Appalachian women tend to be stereotyped in both scholarly literature and the popular media, resulting in this group as being both misrepresented and underrepresented in research. Particularly low income women in Appalachia have received little attention in terms of their specific gender roles and needs (Tickamyer & Tickamyer, 1987). Sohn emphasized that negative attitudes towards women in Appalachia extends beyond the mainstream to American academia (2006). Cultural expectations of women in Appalachia emphasize stereotypical gender roles. The primary social role for women is that of mother-protector in a male–dominant family (Egan, 1993, Fiene, 1991).

In almost every known society, women have lower status than men (Zastrow, 1996). Double standards based on gender have been addressed by the feminist movement with women being encouraged to take an active role in the society, rather than being
relegated primarily to the concerns of domestic life. The feminist movement has moved women into leadership positions in law, business, medicine, government, engineering, and the military. Appalachia women are often caught between a culture that emphasizes feminist expectations and a culture that is characterized by traditional gender roles, a strong commitment to extended family, love of place, and adherence to fundamental religious organizations (Dorsey, 2004). Egan (1993) posits that women in Appalachia often experience guilt in choosing college enrollment over family”. This population may perceive a strong cultural influence to remain in the home and care for their families (Lyons, 1987).

Appalachian women can be considered a marginalized population. This group has received little attention in terms of their specific needs and they tend to be represented by stereotypes in both the media and in scholarly literature (Tickamyer & Tickamyer, 1987, Lyons, 2007). Research with marginalized groups, such as rural Appalachian women, presents multiple challenges to investigators and results in specific groups being underrepresented in scholarly research (Clingerman, 2007). A growing number of women in Appalachia who are nontraditional aged, defined as age twenty-four or older, are enrolling in postsecondary institutions. In 2009, Kentucky community colleges located in the Appalachian region, graduated 338 with transfer degrees. Sixty-seven percent of these graduates were female and forty-one percent were nontraditional-aged (Decker, Dykes, Phillips, & Preston, 2011). Limited research has been conducted to provide an understanding of the needs, experiences, and perceptions of this marginalized group.
Appalachia as a Research Setting

Appalachia is defined by the Appalachian Regional Commission (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, in 1960, during his presidential campaign visited the central Appalachian region and singled out the area as impoverished. The media followed up with reports of the dismal economic conditions of the area. When President Lyndon Johnson launched his War on Poverty programs a few years later, a primary focus was on Appalachia (Santelli, 2003). Much of Appalachia has seen significant gains in the economic base of the region and in the levels of education attainment. This has not been the case in the central Appalachia area which includes all of West Virginia, East Tennessee, Eastern Kentucky, Southwest Virginia, and extreme Southeastern Ohio. This section of Appalachia presents a place of complex contradictions. The rich natural resources and picturesque landscape and are juxtaposed with poverty, low educational rates, and out-migration (Appalachia Community Fund, 2009). The ARC identified eighty-two counties as being distressed in 2011 and forty-two of these are located in Kentucky. This designation is given to lowest 10 percent of counties based on 3 economic indicators: (1) three year average of unemployment rate, (2) the per capita market income, and (3) poverty rates.

The natural resources and geography of the region have greatly influenced the economic, cultural, and social development in Appalachia. The long history of economic
exploitation of lumber and coal resulted in a shift from a family-based agrarian culture to an industrial culture of logging and mining. From the days of World War I and continuing through the depression years, the economy of the region declined resulting in a poor worker class that was dependent upon the companies with owners outside of the region for employment (Lewis & Billings, 2006). The long-standing culture of poverty and exploitation of the region has resulted in the perception of the people of Appalachia as being different. The stereotype of the “hillbilly” continues to be commonly accepted within the larger society.

The evolution of Appalachian culture also 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 women as being sexualized characters as evidenced by the provocatively dressed Daisy Duke in the 1980s Dukes of Hazard television show or as the backwoods character of Granny who can’t adjust to modern life in the 1960s Beverly Hillbillies television series. Darker portrayals of Appalachian culture can be found in the movie Deliverance that presents Appalachians as being dangerous savages (Santelli, 2003). Harkins (2001) 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.

Insider – Outsider Access

Often professionals return to their home communities to provide services or to conduct research. This is particularly true in areas that are considered to be marginalized (Yakushko, Badie, Mallory, and Wang, 2011). The increasing trend for insider research
began in the 1970s and has been viewed both as a solution to concerns about cultural competency and a concern about insider bias. While feminist qualitative researchers have maintained that women can best understand the experiences of other women others advocate for using a team approach of insiders and outsiders (Clingerman, 2007). It has been suggested that researchers can be both insiders and outsiders in working with marginalized populations. Banks proposed a typology that consists of four researcher positions: (1) the indigenous-insider, (2) the indigenous-outsider, (3) the external-insider, and (4) the external-outsider (1998). These positions are based on the origins of the researcher; either indigenous or external and the perspective of the researcher; either insider or outsider.

Evolving out of this typology is the view that insider/outsider position can be viewed as a continuum. Researchers may be insiders by virtue of being members of a particular cultural community, while at the same time have outsider status by virtue of education or lived experiences outside of the culture (Yakushko, et al., 2011). The insider/outsider position of the researcher may change based upon the acquisition of new knowledge or new commitments.

In a presentation to the American Educational Research Association (Cotner, 2000) posited that the degree of “insiderness” and “outsiderness” are based upon the perception of self by the researcher and require self-reflection in order to maintain bias-free inquiry. The degree to which the researcher is accepted as an insider by study participants is dependent upon the cultural competency and rapport building skills of the researcher.
As a part of my dissertation research, I conducted a qualitative study to examine the ways in which nontraditional-aged Appalachian women attending college as location-bound adults perceive the supports and challenges to maintaining multiple life roles as they worked toward baccalaureate attainment. Although an insider to the research site as a multi-generational resident of Appalachia, I discovered that my training in traditional academic approaches to participant recruitment was unsuccessful. The poor response rate to my initial letters of invitation required the development of new recruitment strategies. The following section describes the steps I took to increase participation in my project, research position movement from outsider to insider, and discusses the literature on the recruitment of marginal groups for research projects.

My initial plan for recruiting participants was to contact all of the population of female 2009 graduates of three Appalachian Kentucky community colleges who were twenty-four years of age or older and were enrolled in baccalaureate programs within their home communities by mail. Letters approved by my university’s human subjects review board were initially sent to thirty eight women. Only one potential participant responded to the mailing.

My first reaction to the poor response rate from mailed letters was to consider online methods. Through my experiences as an instructor, I knew that students frequently use social media. Villagran (2011) notes that in recent years the use of communication technology has been rapidly increasing as a venue for disseminating and gathering information. Social networking sites are used globally. The most population site in the United States is Facebook (Vincos, 2011). Facebook and other social networking websites allow users to create a personal file and network with other individuals who
have profiles on the site. These profiles can include pictures, journals, and personal data. Profiles may be made available to any website visitor or may be available only to those who have the permission of the profile’s owner. The social network can be searched for the names of users by any visitor to the site. Facebook users voluntarily post their contact information in a public forum. Although the users publically post identifying data such as name, hometown, and other personal data, it is important that researchers maintain the confidentiality of research participants through protecting identifying information (Moreno, Fost, & Christakis, 2008).

My next effort to contact participants was to use Facebook through the private messaging application. I identified ten potential participants by name and address and sent private messages to them on their Facebook sites. The message consisted of a summarized version of my initial contact letter. Only one woman responded to my message. She was suspicious of my contact, asking, “How did you get my name”? I responded in a less formal message, explaining the process in a straightforward manner. This seemed to reassure the potential participant, but she declined to be interviewed because, “I’ve been sick and my daughter is getting married”. This interaction forced me to consider that the tone of the letter was a probable barrier to establishing initial rapport with the potential population of adult Appalachian female students.

While there is limited literature about conducting culturally competent research with residents of Appalachian, there is a growing body of literature about the importance of cultural competence. Vonk (2001) emphasized that cultural competence with any marginalized population should involve knowledge, skills, and attitudes. The knowledge base includes an understanding of the history of the culture and the impact of
discrimination towards the group. Additionally, it is important that the researcher develop an understanding of the socioeconomic factors, the traditions, and the values of the culture. The researcher also must be aware of his/her own attitudes and how they may differ from the marginalized population (Clingerman, 2007).

Kathryn Russ (2010) noted that “People of Appalachian culture are an invisible minority”. As with any marginalized population, it is important that the researcher develop cultural competence in order to respond to the cultural factors of Appalachian research participants. Cultural competency has been defined as “being aware of and appropriately responding to the ways in which cultural factors and cultural differences should influence” all areas of the research study (Rubin and Babbie, 2008: 98). Although, to some extent, I had insider access to the population, I had not considered the issues related to culture in wording my initial contact letter or my social media message. Clingerman (2007) posits that marginalized groups are underrepresented in research, in part, because of their reluctance to talk with outsiders. This unwillingness to participate in research may be the result of the lack of trust in the research. Studies of minority groups have demonstrated that individuals do not participate in research due to fear, mistrust, and a lack of knowledge about research (Roberts, 1994). Appalachian Americans have been stereotyped as being different and inferior to the residents of other areas and frequently have been victimized by industry, the media, and even government entities. This results in the tendency for mistrust of outsiders.

As is common, my contact letters used academic language, similar to IRB applications. The use of “outsider” language does little to encourage or motivate marginalized potential participants, which may have been reflected in my poor response
rate to both my letter of invitation and facebook messages. Marginalized groups who perceive differences in investigator’s culture, language, or status can result in difficulty both in the recruitment of participants and in developing the trusting relationship essential to qualitative studies (Clingerman, 2007, O’Connor, 2004).

In order to make initial contact with potential participants, it was apparent that I needed to establish myself as an insider. I did this through the use of gatekeepers within the colleges and universities in which individuals were enrolled. I considered contacting campus directors and program coordinators; however, from my experience as a community college and university insider, I knew these individuals have little day-to-day contact with students. Faculty who teach in region-based programs have extensive contact with students. Since these individuals teach on small campuses, I assumed that they would have relationships with students. Therefore, I contacted faculty from each program offered in each baccalaureate program and explained the study and my difficulties in recruiting participants. Each of these individuals agreed to make a brief announcement in their classes, explaining the research being conducted and the study criterion. The instructors provided my contact information to the students. This resulted in thirty-one students contacting me. I telephoned each of these individuals and reviewed the scope of the study. Three of the students did not meet the study criteria and four others were not able to arrange their schedules to be interviewed. The remaining twenty-four women participated in the study. The use of faculty members known to the participants provided me a measure of insider status. The initial phone conversations were informal and academic verbiage was avoided. As a native Appalachian, my accent was similar to the potential participant’s pattern of speech. The conversation which was
less formal than the contact letters and the similarities in regional accents promoted trust and allowed for establishing rapport with the individual. I explained the study in more detail during the interviews, the participants were given a written summary of the research project, and each signed a consent form to participate.

**Reflections on Insider-Outsider Position**

In an illustration of Cotner’s premise that research participants can change their opinion of the position of the researcher, the participants in the study of Appalachian women students changed their perception of me. In my initial contact, my regional accent and my lived experiences in Appalachian were not apparent, but were hidden behind the academic style demanded by language of scholarly research. After using familiar faculty as gatekeepers and talking with students on the telephone, my own Appalachian heritage became clear. This set the stage for being considered an insider and establishing rapport. Several other factors allowed me to establish rapport fairly quickly with the participants. Although I share little in terms of life experiences with the participants, I do have the experience of living within the culture of Appalachia. This provides me with a degree of understanding their experiences. Additionally, I am a licensed mental health clinician with years of experience in working with individuals in the psychotherapeutic process. My education and experience provide me with expertise in both establishing rapport with individuals and eliciting information from interviews.

Identifying my own position an insider-outsider in this research with Appalachian women students required significant self-reflection. I am a native Appalachian, although from one of the few non-coal producing areas of Appalachia Kentucky. I felt extremely comfortable with my level of cultural competence with the participants and their cultural
backgrounds, and I believe that this encouraged open communications with the women. I am also aware of my position as an outsider. While I recognize the underlying cultural experiences of many of the women who live in mining communities or persistent poverty regions of the mountains, I haven’t had these same lived experiences. The focus of this study was to understand the perceptions and experiences of women who were nontraditional-aged students who transferred from community college into baccalaureate programs within their home communities. Most of the women in this study are first generation college students who maintain multiple life roles, and are coping with fairly extreme poverty. I have professional experience with this population, but my personal experiences as an undergraduate student were much different. The definition of nontraditional student used in this study was age twenty-four or older. I had completed a master’s degree before reaching this age. According to Bank’s (1998) typology, I would be classified as an indigenous outsider. I have a shared culture with the participants, but because of differences in education and experiences, I have different perspective than the study participants.

**Recommendations for Appalachian Researchers**

Central Appalachia is a region that has historically been considered to be distinct from the culture of the larger society. The area is known for its severe and persistent poverty and the residents have been stereotyped as being different from other Americans. Billings (1999) observed that “…mountain people, it seems are acceptable targets for hostility, projection, disparagement, scapegoating, and contempt” (p.3). Residents of Appalachia have been misrepresented in both the popular media and in scholarly literature. The reluctance of this population to participate in research studies is
understandable given their stereotypical representation. Misleading results from culturally insensitive research can result in supporting stereotypes and can make marginalized individuals less likely to participate in research studies (Rubin & Babbie, 2008).

Family-centered culture and fairly closed communities have a historical base in Appalachia (Jones, 1994). The geographical isolation of mountain communities resulted in social structures that focused on family and near neighbors (Beaver, 1986; Walls & Billings, 2002, Russ, 2006). These cultural characteristics must be understood by researchers if residents of Appalachia are to be adequately represented in scholarly literature. While it is not essential for researchers to be insiders, it is helpful in recruiting participants if there is at least insider collaboration. The use of insider/outsider collaboration was developed in the sociological literature by Merton (1972) who suggested that ethnocentric bias could best be controlled for by such partnerships. In order to control for such bias in the study of Appalachian female students, the primary investigator had insider status and members of a collaborative research team who had outsider status were involved in the analysis of the data.

The Appalachian researcher should be familiar with recent literature related to Appalachia. Since so much of both popular and scholarly literature presents cultural stereotypes of this region, it is important that researchers that they develop a realistic understanding of the culture and be able to recognize stereotypical presentations. A recent trend in critical scholarship has been recognize Appalachian stereotypes and to provide an uncritical stance towards the social reproduction of poverty within the region (Billings, Norman, & Ledford, 2001, Eller, 2008).
It is important that recruitment efforts should reflect Appalachian cultural competency. The contact letters used early on in the research study of Appalachian women were written in standard academic style. While respectful, they lacked a warm and friendly tone as suggested by Rubin and Babbie (2008). Although not used in this study, snowball sampling and other methods based on insider introductions also would be a way to gain access to marginalized individuals. Snowball sampling involves using initial participants to help recruit other potential participants. Since the first participants are members of the marginalized population, this provides some degree of insider collaboration in encouraging other participants.

Finally, marginalized populations are not homogeneous. Insider status, as reflected in my personal history, is relative. Thus researchers wishing to explore the experiences of marginalized peoples must also be aware of differences within the populations, especially around differences of social or economic class. It is important that research with underrepresented groups be conducted using techniques that are tailored to the needs of the marginalized groups. This requires that researchers be both persistence and flexible in how they engage potential participants.

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References


Chapter 5

Conclusion

Many great insights were garnered during the process of completing a companion study. Working with three other researchers on a common topic allows one to view the topic from various perspectives and to better understand the dynamics at play. The four general themes that resulted from these discussions follow.

First, our research team 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. 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 initiative seeks to increase the number of baccalaureate degree holders, this may not come to fruition in the Appalachian region of Kentucky 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 some of these fields have been saturated by the large number of students who enter these programs because they are unable to leave the area to enroll in traditional residential baccalaureate granting institutions. In order to work towards the national completion agenda and the Double the Numbers mandate, while simultaneously benefiting students and local
economies, these baccalaureate programs should be tied to the technical disciplines that are needed within 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 community college: faculty, 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 checksheets, articulation agreements, transfer scholarships, and transfer institutions. 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 with a research team made up of four individuals with different backgrounds who 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 that 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 out research was better for having completed
companion studies and that we produced an in-depth study of the topic with a breadth that could not have been others achieved.

Participating in the dissertation process with a team of researchers who conducted a collaborative study and individual companion studies has been a worthwhile challenge. This unique experience echoes the developing role of collaboration in the academic arena. It has allowed me opportunities for both personal and professional growth.

The process of collaborating as a team is frequently defined by tensions, and our team certainly had its share of pushing and pulling as we worked together to reach our common goal. We, as a team, believe that we have completed a strong dissertation that will contribute to the knowledge base of educators and policymakers who are dedicated to promoting transfer baccalaureate attainment. Because we came together as a group with strong complementary skills and diverse experiences, we have proven the Aristotle’s adage “the whole is greater than the sum of its parts”.

It has been a fulfilling undertaking to add to the foundation of knowledge that will benefit the residents of Appalachia. As a native Appalachian whose roots are firmly planted in the foothills of the mountain, I believe that the answer to the social reproduction of poverty lies in higher education. Our research team has spent countless hours in the mountain communities of Appalachia Kentucky and we have developed a great respect for those who champion the need for increasing the accessibility of postsecondary education within the region.

Appalachia Kentucky is a region that has a long history of severe and persistent poverty that is coupled with the lowest level of educational attainment in the country. The people of this region are often stereotyped in the media in a ways that are commonly
accepted both by the larger community and within the region itself. Policy makers, guided by economist, agree that increasing the rate of citizens who hold baccalaureate degrees is the answer to improving the quality of life within this region (Cseh & Zilliak, 2006, CPE, 2008). The focus of the collaborative study was to examine the bridges to transfer and persistence to the baccalaureate degree in Appalachia Kentucky in terms of policy, institutional practice, and student experiences. This study set the stage for the qualitative study of adult female students who pursue baccalaureate degrees in their home communities. This population makes up a large segment of Appalachian community colleges, but is often ignored by researchers.

This study of the influences of multiple roles and cultural norms on Appalachian adult women students who are location-bound contributes to the understanding of the needs of this population. By giving voice to the study participants, policy makers and educational professionals are provided with a clear picture of the supports and barriers in the lives of these women. As a marginalized population, these women have been underrepresented in research and as a result, are often disenfranchised in policy decisions. It is this author’s hope that in considering ways to increase educational attainment in Kentucky, education professionals and policy makers will work to make postsecondary services more accessible to the women of Appalachia.
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.

Table 2.5

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</th>
<th>95% 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>
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<tr>
<td>Gender</td>
<td>-0.085996</td>
<td>0.251556</td>
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<td>0.732</td>
<td>0.92</td>
<td>0.56</td>
<td>1.50</td>
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<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>
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<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>
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<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>
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</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.
Table 2.6

*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>
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<td>Gender</td>
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<td>0.92</td>
<td>0.57</td>
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<td>Age</td>
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<td>1.94</td>
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<td>Cum. GPA</td>
<td>0.226335</td>
<td>0.235306</td>
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<td>0.336</td>
<td>1.25</td>
<td>0.79</td>
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<tr>
<td>Tot. Cum. Hours</td>
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<td>0.283926</td>
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<td>2.23</td>
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<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>
</tr>
<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>
</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.
Table 2.7

*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% Lower</th>
<th>95% Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.298660</td>
<td>0.715618</td>
<td>-0.42</td>
<td>0.676</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 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.
Table 2.8

*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.
Table 2.9

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% Lower</th>
<th>95% 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.

Table 2.10
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</td>
<td>Mean</td>
<td>38.84</td>
<td>42.04</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>7.669</td>
<td>6.811</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>1.759</td>
<td>1.390</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>58.807</td>
<td>46.389</td>
</tr>
<tr>
<td>Advising</td>
<td>Mean</td>
<td>31.32</td>
<td>33.29</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>5.803</td>
<td>4.592</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>1.331</td>
<td>.937</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>33.673</td>
<td>21.085</td>
</tr>
<tr>
<td>Peers Subscale</td>
<td>Mean</td>
<td>43.53</td>
<td>45.58</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>6.703</td>
<td>7.027</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>1.538</td>
<td>.937</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>44.930</td>
<td>49.384</td>
</tr>
<tr>
<td>Multiple Roles</td>
<td>Mean</td>
<td>26.63</td>
<td>27.17</td>
</tr>
<tr>
<td>Subscale</td>
<td>SD</td>
<td>5.166</td>
<td>4.517</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>1.185</td>
<td>.922</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>26.690</td>
<td>20.406</td>
</tr>
<tr>
<td>Faculty Subscale</td>
<td>Mean</td>
<td>30.74</td>
<td>32.96</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>4.039</td>
<td>4.930</td>
</tr>
<tr>
<td></td>
<td>Std Err of Mean</td>
<td>.927</td>
<td>1.006</td>
</tr>
<tr>
<td></td>
<td>Variance</td>
<td>16.316</td>
<td>24.303</td>
</tr>
</tbody>
</table>
Table 2.11
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)</td>
<td>109.948</td>
<td>2</td>
<td>54.974</td>
<td>1.446</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>2927.052</td>
<td>77</td>
<td>38.014</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3037.000</td>
<td>79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advising Subscale</td>
<td>Between Groups (Combined)</td>
<td>41.435</td>
<td>2</td>
<td>20.717</td>
<td>.993</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>1606.253</td>
<td>77</td>
<td>20.860</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1647.687</td>
<td>79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peers Subscale</td>
<td>Between Groups (Combined)</td>
<td>46.980</td>
<td>2</td>
<td>23.490</td>
<td>.683</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>2646.570</td>
<td>77</td>
<td>34.371</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>2693.550</td>
<td>79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Roles Subscale</td>
<td>Between Groups (Combined)</td>
<td>3.073</td>
<td>2</td>
<td>1.563</td>
<td>.088</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>1340.727</td>
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<td>17.412</td>
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</tr>
<tr>
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<td>Total</td>
<td>1343.800</td>
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<td></td>
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</tr>
<tr>
<td>Faculty Subscale</td>
<td>Between Groups (Combined)</td>
<td>52.677</td>
<td>2</td>
<td>26.339</td>
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</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>1262.210</td>
<td>77</td>
<td>16.392</td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>1314.887</td>
<td>79</td>
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<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).

Table 2.12
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</th>
<th>95% 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>
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<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 Status</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. See table below.

Table 2.13

<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>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>2</td>
<td>My advisor didn’t seem to remember things we discussed before.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</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>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>4</td>
<td>I got support from my classmates when I needed it.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>5</td>
<td>The university’s policy of transfer credits penalized students.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>6</td>
<td>My questions seemed to put faculty members on the defensive.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>7</td>
<td>The faculty and administrators were sensitive to my other responsibilities.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>8</td>
<td>I sometimes felt alone and isolated at the college.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>9</td>
<td>The administrative rules and regulations were clear to me.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>10</td>
<td>My professors interpreted assertiveness as a challenge to their authority.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>11</td>
<td>The administration set things up to be easy for them, not the students.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>12</td>
<td>It was hard for me to adjust to the school environment.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>13</td>
<td>If my advisor didn’t know the answer to my questions, he or she would seek out the answers.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>14</td>
<td>The classroom atmosphere encouraged me to speak out in class.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>15</td>
<td>I felt my classmates reacted positively to my experience and knowledge.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>16</td>
<td>My professors seemed to recognize other students but not me.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>17</td>
<td>I didn’t have time to complete the administrative tasks the college required.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</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>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>19</td>
<td>I felt like I fit in my classes.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>20</td>
<td>The administrative offices were not open at times when I needed them.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>21</td>
<td>The administration made efforts to accommodate students.</td>
<td>D</td>
<td>N</td>
<td>A</td>
<td>SA</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)
   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
6. 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)
   If yes, how many dependents did you have while you were a student at [institution]?
      ___________ Number of Dependents
7. 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)
   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.
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.

Table 2.14

*Questions Used to Measure MSQCS Subscales*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Questions</th>
</tr>
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<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>
### Appendix D

**Participant Demographics**

#### Table 2.15

**Participant Demographics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th>ACTC</th>
<th>HCTC</th>
<th>SKCTC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</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/SD</td>
<td>30.5/11.43</td>
<td>34.4/12.44</td>
<td>31.6/11.19</td>
<td>27.9/10.64</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<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>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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>
<td>8.3%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Widowed</td>
<td>2.5%</td>
<td>0%</td>
<td>0%</td>
<td>5.4%</td>
</tr>
<tr>
<td><strong>Enrollment Status</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-Time</td>
<td>13.8%</td>
<td>15.8%</td>
<td>12.5%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Full-Time</td>
<td>86.3%</td>
<td>84.2%</td>
<td>87.5%</td>
<td>86.5%</td>
</tr>
<tr>
<td><strong>Work Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didn’t Work</td>
<td>25%</td>
<td>26.3%</td>
<td>20.8%</td>
<td>24.3%</td>
</tr>
<tr>
<td>Worked</td>
<td></td>
<td></td>
<td></td>
<td></td>
</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>
</tr>
<tr>
<td>21-30hrs/wk</td>
<td>27.9%</td>
<td>26.3%</td>
<td>16.7%</td>
<td>21.6%</td>
</tr>
<tr>
<td>31-40hrs/wk</td>
<td>36.1%</td>
<td>26.3%</td>
<td>41.7%</td>
<td>18.9%</td>
</tr>
<tr>
<td>41+hrs/wk</td>
<td>16.4%</td>
<td>15.8%</td>
<td>8.3%</td>
<td>13.5%</td>
</tr>
<tr>
<td><strong>Dependents</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>53.8%</td>
<td>47.4%</td>
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<td>56.8%</td>
</tr>
<tr>
<td>1 Dependent</td>
<td>18.8%</td>
<td>5.3%</td>
<td>29.2%</td>
<td>18.9%</td>
</tr>
<tr>
<td>2 Dependents</td>
<td>16.3%</td>
<td>36.8%</td>
<td>12.5%</td>
<td>8.1%</td>
</tr>
<tr>
<td>3 Dependents</td>
<td>2.5%</td>
<td>5.3%</td>
<td>0%</td>
<td>2.7%</td>
</tr>
<tr>
<td>4 Dependents</td>
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<td>5.3%</td>
<td>0%</td>
<td>10.8%</td>
</tr>
<tr>
<td>No Response</td>
<td>2.5%</td>
<td>0%</td>
<td>4.2%</td>
<td>2.7%</td>
</tr>
<tr>
<td><strong>Developmental Course Completion</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>50%</td>
<td>63.2%</td>
<td>29.2%</td>
<td>56.8%</td>
</tr>
<tr>
<td>1 Developmental Courses</td>
<td>15%</td>
<td>15.8%</td>
<td>25%</td>
<td>8.1%</td>
</tr>
<tr>
<td>2 Developmental Courses</td>
<td>23.8%</td>
<td>21.1%</td>
<td>20.8%</td>
<td>2.7%</td>
</tr>
<tr>
<td>3 or More Developmental Courses</td>
<td>11.3%</td>
<td>0%</td>
<td>25%</td>
<td>8.1%</td>
</tr>
<tr>
<td><strong>SSS Participation Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSS Participant</td>
<td>20%</td>
<td>21%</td>
<td>12.5%</td>
<td>24.3%</td>
</tr>
<tr>
<td>SSS Non-Participant</td>
<td>80%</td>
<td>79%</td>
<td>87.5%</td>
<td>75.7%</td>
</tr>
<tr>
<td><strong>First Generation Student</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Generation</td>
<td>79%</td>
<td>68%</td>
<td>83%</td>
<td>81%</td>
</tr>
<tr>
<td>Not 1st Generation</td>
<td>21%</td>
<td>32%</td>
<td>17%</td>
<td>19%</td>
</tr>
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</table>
Table 2.15 (continued)

<table>
<thead>
<tr>
<th>Pell Recipient Status</th>
<th>Pell Recipient</th>
<th>Pell Nonrecipient</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>61%</td>
<td>58%</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>39%</td>
<td>42%</td>
<td>33%</td>
</tr>
<tr>
<td>Extra-curricular Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involved</td>
<td>27.5%</td>
<td>26%</td>
<td>17%</td>
</tr>
<tr>
<td>Not Involved</td>
<td>72.5%</td>
<td>74%</td>
<td>83%</td>
</tr>
<tr>
<td>Transfer Persistence</td>
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<tr>
<td>Persister</td>
<td>48%</td>
<td>47%</td>
<td>42%</td>
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<tr>
<td>Non-Persister</td>
<td>52%</td>
<td>53%</td>
<td>58%</td>
</tr>
<tr>
<td>No Response</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Transfer Destination</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eastern Kentucky University</td>
<td>10%</td>
<td>0%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Lindsey Wilson College</td>
<td>10%</td>
<td>0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Morehead State University</td>
<td>10%</td>
<td>26.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Ohio University Southern</td>
<td>3.8%</td>
<td>10.5%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Lincoln Memorial University</td>
<td>2.5%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Union College</td>
<td>2.5%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Bluefield State University</td>
<td>1.3%</td>
<td>5.3%</td>
<td>0%</td>
</tr>
<tr>
<td>Colorado Technical University (Online)</td>
<td>1.3%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Midway College</td>
<td>1.3%</td>
<td>0%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Northern Kentucky University</td>
<td>1.3%</td>
<td>5.3%</td>
<td>0%</td>
</tr>
<tr>
<td>University of Kentucky</td>
<td>1.3%</td>
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<tr>
<td>Weber State University</td>
<td>1.3%</td>
<td>0%</td>
<td>4.2%</td>
</tr>
</tbody>
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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

Consent to Participate in a Research Study

TITLE OF STUDY

The Influences of Multiple Roles and Cultural Norms on the Baccalaureate Persistence of Location-Bound Nontraditional Appalachian Women Students

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

You are being invited to take part in a research study about the ways that nontraditional-aged Appalachian women attending college as location-bound adults perceive the supports and challenges to baccalaureate attainment. You are being invited to take part in this research study because you are a female graduate of an Appalachian community college and are pursuing a baccalaureate degree in your home area. If you volunteer to take part in this study, you will be one of about 30 people to do so.

WHO IS DOING THE STUDY?

The person in charge of this study is Nancy Preston, 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 Amber Decker, Michelle Dykes, and Christopher Phillips.

WHAT IS THE PURPOSE OF THIS STUDY?

By doing this study, we hope to learn how Appalachian culture and the maintenance of multiple life roles affect adult female student in their pathway to the baccalaureate degree.

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

Only female students who are graduates of Appalachia Kentucky Community and Technical Colleges and who are enrolled in baccalaureate degree programs in their home region will participate 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 community college campus from which the participants graduated. You will need to come to the designated place on campus one time during the study. Each visit will take approximately one hour. The total amount of
time you will be asked to volunteer for this study is one hour during the month of November, 2010, December, 2010, or January, 2011.

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

During the one hour interview, you will be asked to reflect on your educational experiences and your life experiences as they relate to your role of student. After the completion of your interview, the researchers will compile the major themes that emerge from the interview responses of all of the participants.

**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 educators better understand the needs of non-traditional women as they participate in postsecondary educational programs.

**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. As a student, if you decide not to take part in this study, your choice will have no effect on your academic status or grades.

**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. You will select a pseudonym prior to beginning your interview. Any reference to your specific responses will use this pseudonym and no other identifying information will be used.

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, Nancy Preston at n.preston@moreheadstate.edu or 606-327-1777. 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


Jones, B. N. (2010, September 13). Interview with the executive director of regional campuses, Morehead State University [Personal interview].


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


Townsend, B. K. (2009). The outlook for transfer programs and the direction of the community college. New Directions for Community Colleges, 146, 103-110.


VITA

NANCY COLDIRON PRESTON
Date of birth: 11/2/1955
Bellefonte, KY

EDUCATIONAL INSTITUTIONS ATTENDED AND DEGREES AWARDED

University of Kentucky
Doctoral Candidate, Educational Policy Studies

University of Kentucky
Masters of Social Work

Morehead State University
Bachelor of Social Work

PROFESSIONAL POSITIONS

Pathways, Inc.
1980 – 1984: Out-Patient Therapist
1984 – 1988: Inpatient/Forensic Director
1988 – 1990: Mental Health Coordinator

Nancy C. Preston, LCSW (Independent Mental Health Practitioner)
1990 – 2000: Mental Health Consultant and Clinician

Ashland Community and Technical College
1997 – 2005: Director of Disability Services
2005 – 2009: Adjunct Faculty

Morehead State University
2011 – Present: Campus Director, MSU-Ashland

University of Kentucky
2010 – Present: Adjunct Graduate Faculty – College of Social Work

SCHOLASTIC AND PROFESSIONAL HONORS

- 2005 New Horizons Award Recipient Kentucky Community and Technical College System
- 2005 NISOD Award of Excellence Recipient