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Factors That Contribute to Student Graduation and Dropout Rates: An In-Depth Study of a Rural Appalachian School District

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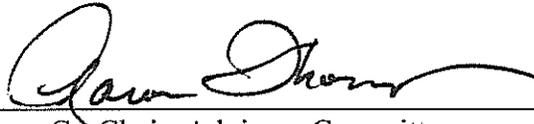
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FACTORS THAT CONTRIBUTE TO STUDENT GRADUATION AND DROPOUT
RATES: AN IN-DEPTH STUDY OF A RURAL APPALACHIAN SCHOOL
DISTRICT

By

Ann Lyttle-Burns

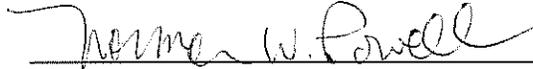
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FACTORS THAT CONTRIBUTE TO STUDENT GRADUATION AND DROPOUT
RATES: AN IN-DEPTH STUDY OF A RURAL APPALACHIAN SCHOOL
DISTRICT

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Master of Arts
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Submitted to the Faculty of the Graduate School of
Eastern Kentucky University
in partial fulfillment of the requirements
for the degree of
Doctorate of Education
May, 2011

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DEDICATION

This dissertation is in dedication to my father Rev. Roy Lyttle (1927-2008).

See you in the morning. I love you daddy. Anniebelle

ACKNOWLEDGMENTS

There have been many obstacles in my life and I feel really blessed that with every obstacle there have been many who have supported my educational and personal pursuits. I will begin by thanking God, for without God this would not be possible. I have never gone into battle without prayer and I have felt God's presence, blessings, and guidance throughout this research endeavor.

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I have had the privilege of working with an awesome committee who has made the journey worthwhile. They are so knowledgeable in their areas of expertise and have been excellent mentors to me. I would like to begin by thanking Dr. James Rinehart for his special guidance. He has so much knowledge regarding quantitative studies and I feel he genuinely wanted me to walk out the door prepared in that arena. I thank you so much! I would also like to thank my co-chair: Dr. Aaron Thompson. He has always been genuinely interested in helping me become the best that I can be and has always had the highest expectations of me. Everyone needs a Dr. Thompson in their life to see the value of the road being challenging, reflective, and full of truths to be learned about yourself and your world. I would also like to thank Dr. Norman Powell and Dr. Deann Allen. Dr. Powell has helped me stay grounded and was always reminding me to stay committed to improving student achievement for students at-risk of failure. Dr. Allen spent so much time with me and her knowledge, ideas and direction were priceless. I am most deeply grateful to her; this project had wings because of her.

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Central Appalachia will be forever my home. Many would like to focus on the poverty of the region, yet through my research endeavor I have found that Appalachia is rich with the beauty of the mountains and the people who live there. The story of the students and educators in this rural Appalachian school district is a story of resilience and hope. It is a story of educators who deeply care for their students and students who genuinely feel cared for by their teachers. Thank you for allowing me to tell our story.

ABSTRACT

There has been a wealth of research conducted on the national epidemic of high school dropouts spanning several decades. It is estimated that the class of 2009 cost the nation \$335 billion in lost wages, taxes and productivity over their lifetimes (Alliance for Excellent Education, 2009). The citizenry of the country suffers not only because of the loss in revenue but also as a result of the education level of the population. Individuals who choose to drop out of high school are not prepared for the most basic minimum wage jobs available, much less well paying jobs that sustain livelihoods. This study seeks to determine if variables exist that contribute to students making the choice to graduate or drop out of high school in Lytle County, Kentucky (name changed to protect the identity of the county). The research utilized a mixed methods research design. After demographic data was collected on a student cohort, interviews were conducted with leaders, educators, and students. Thompson's (2008) four elements of student success states that family, community, school, and students must work together to contribute to the success of students. By looking through the lens of each element and Bandura's (1993) achievement theory, based on data collected from the student, educator, and leader population in Lytle County, the researcher drew conclusions and offered recommendations for future endeavors and research to assist in finding solutions to the dropout epidemic that plagues this county, the region, and the nation.

As a result of the findings of this study, recommendations concerning curriculum development, mapping, and tracking were suggested based on the number of students who move, many of which do so several times throughout their lives. In addition, the

practice of grade retention should be reviewed with leaders and educators reviewing policies that lead to retaining students. Research shows that grade retention has a negative effect and often results in students dropping out of school. Leadership at the school and district level should attempt to bring parents into the educational process. Data from the study demonstrated that parental involvement is lacking within the district. Research shows that the involvement of parents in a student's education can be a major factor in whether students succeed academically or not.

In conclusion, findings from this study suggest that students in this rural Appalachian region of the nation face many obstacles in pursuit of a high school diploma. They include poverty, high rates of mobility, a lack of parental involvement, practice of grade retention by the district, and a lack of role models. Although leaders and educators within the district show interest and concern in the educational success of their students, their statements and actions are often not reinforced in the home environment. Schools, leaders, and educators are often expected to contribute to the basic needs of students that are not available at home. Students often witness generations of family members who have not earned a high school diploma and sustain themselves through government assistance. School officials try to combat the image of education not being important that this portrays on a daily basis but many feel it is a losing battle. Often students are expected to be the decision maker when it comes to their education because their family members do not feel they are qualified to assist them in this process.

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Chapter I

Introduction

Background of the Problem

As the nation turns its focus to high educational standards and establishing measurable goals for improving individual student achievement through the much debated No Child Left Behind Act, it is important to note that for the 2003-2004 school years, only 75 percent of students graduated from high school (National Center for Educational Statistics, 2006-606rev). This figure represents the national averaged freshman graduation rate for public school students with an estimated percentage of high school students who graduated on time four years after entering ninth grade.

A closer look at the statistical breakdown of the national rate reveals that students in rural areas appear to be outperforming their urban counterparts. "Data indicate that the dropout rate for rural students tends to be lower than that of urban students" (Khattri, Riley, & Kane, 1997, pg. 9). According to the status of education in rural America, the 2002-2003 averaged freshman graduation rates for rural public high schools was 75 percent compared to 65 percent of urban public high schools (NCES 2006-606rev). One third of the nation's rural population resides in the South, and half of all rural adults who have not successfully completed high school reside in this area (U.S. Department of Agriculture, 2003). Despite the fact that rural students have lower dropout rates, research suggests that fewer rural dropouts return to school at a later time to complete their education (Sherman, 1992; Stern, 1994). As a result, the negative effects as a result of

not having a high school diploma may be greater for rural students than others (Khattari et al., 1997). However, given that rural students are graduating at a higher rate than urban students, an avenue has been provided to conduct a much needed research study on rural Appalachia. Low graduation rates are a problem at the national level that particularly affects rural Appalachian students. A review of the literature reveals that Kentucky rural Appalachian graduation rates are shockingly low compared to national and rural rates. In the state of Kentucky, the graduation rate in Lytle County (name changed to protect the identity of the county) was 71.77 percent in 2009 and as low as 66.32 percent in 2005. Dropout rates in the county are among the highest in the state with a district total of 5.31 percent (Kentucky Department of Education, 2010). Although this percent is among the highest in the state, this independent study will reveal graduation rates that are half the reported rate and dropout rates for this county that are more than four times higher than reported rates. This independent study uses an alternative model instead of the traditional model mandated to school districts by the Kentucky Department of Education in search of a more detailed account of student educational outcomes in the district. Concerning the subject of educational attainment for Lytle County, Kentucky, only 44.5 percent of 18-25 year olds living in the county had a high school diploma or equivalency in 2008 (U.S. Census Bureau, 2008). Why do so many students in Eastern Kentucky drop out of school?

There is extensive literature spanning years of educational research that addresses student success in terms of graduation and dropping out of school. However, little research addressing student success for rural Appalachian students exists. There is even

less research that offers solutions to the high dropout rate for this student population. The solutions proposed to remedy the issues of rural Appalachian schools continue to be generic in nature, and programs designed for urban settings are believed to be appropriate for rural settings as well. “Not mindful that a century of generic reforms unresponsive to local context have proven inadequate, many national and state school reform leaders today continue to suggest that schools across the country are plagued by generic problems that, once again can be fixed with generic solutions. Thus a hundred years go unlearned among educators themselves” (Kannapel & DeYoung, 1999, p. 67). In response to the lack of research available on this student population, this study will focus on the importance of place.

This study will assist the school district in successfully predicting dropouts and graduates with predictor variables. Although the identification of these variables will provide valuable information in itself, this study will investigate further, by using information obtained from student records, in hopes of discovering the source of the problem. This study will allow rural educators, graduates and dropouts to offer insight into the problem of low graduation rates. This holistic approach to understanding the anatomy of a dropout and identifying predictors of student success will determine the level of the effect, if any family, community, school and the individual students have on student success. There are a variety of factors that can contribute to the decision students make when they choose to drop out of school. Why are some students successful while others fail to obtain a high school diploma? If a student successfully obtains a high school diploma, what factors contributed to that success? Do we credit family, community,

educational institution, or the individual student for the success? Who is at fault if a student drops out of school? These are some of the questions this research study will attempt to address.

To understand student success in rural school districts, one must understand the basis of student success, regardless of location, socioeconomic status, and other factors. This chapter will begin by highlighting the theoretical framework to be used in the study. In addition, the variables used in the study can be used in urban settings as well; however they will highlight some unique data that can be used to increase graduation rates in rural schools.

Theoretical Framework

When examining the likelihood of a student to graduate or drop out of school, it is important to examine self-efficacy. The family, community, school and the individual student must be able to view themselves as having the power to increase the number of graduates and decrease the number of dropouts in the district. The family must teach the child that what they do in the classroom each day leads to individual success. The family must also understand that their words and actions can help or hinder the process of success for the child. Students must believe they have the ability to change the world around them. They must feel they have the power to chart the course of their destiny. The community must also believe in its own power to make services available and aid schools and families by working with them to bring positive change. The schools must realize the importance and power they have in changing the community as it stands currently as well as the future. The stronger a person's level of self-efficacy is, the higher

expectations are set and an increased focus is placed on accomplishing goals (Bandura, 1993). Stakeholders must see the bigger picture for the community and the overall well being as a result of this unified focus. Bandura (1977) states: "Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned by observation through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action" (p.22). When stakeholders are not confident in their ability to change they are more likely to operate in isolation and assign blame to others when goals are not met, ultimately resulting in a decreased likelihood of student success.

What are the obstacles and pathways to student success in rural Appalachia? It can be argued that the reasons students from central Appalachia graduate or drop out of school mirror those of students in other geographical regions, yet in many ways those reasons are unique to place. "Some problems in rural areas seem specifically a function of demographic factors very different from those in central cities" (DeYoung, Huffman, & Turner, 1989, p. 57). Regardless of the locale of the student, the four element model of student success (Thompson, 2008) suggests that students are successful as a result of the involvement of family, community, school and individual student effort. Student success, when defined as successful completion of high school, most likely occurs when all four elements work together. Students who are missing one element or experience deficits in any of the four elements are more likely to struggle in the pursuit of obtaining their high school diploma. This research will rely heavily on the four elements in relation

to student success (Figure 1) and suggests that when these institutions operate together and not in isolation from one another, the likelihood of a student graduating increases. On the other hand, the lack of or a deficiency in one of these elements increases the likelihood the student will drop out of school. In the first phase of the study factors will be examined to determine to what degree a set of variables has on influencing schooling outcomes among a cohort of K-12 rural Appalachian students. Historical data (e.g., gender, race, family status, mobility, grade retention, graduation or dropout status) will be examined quantitatively through the use of cumulative records for a cohort.

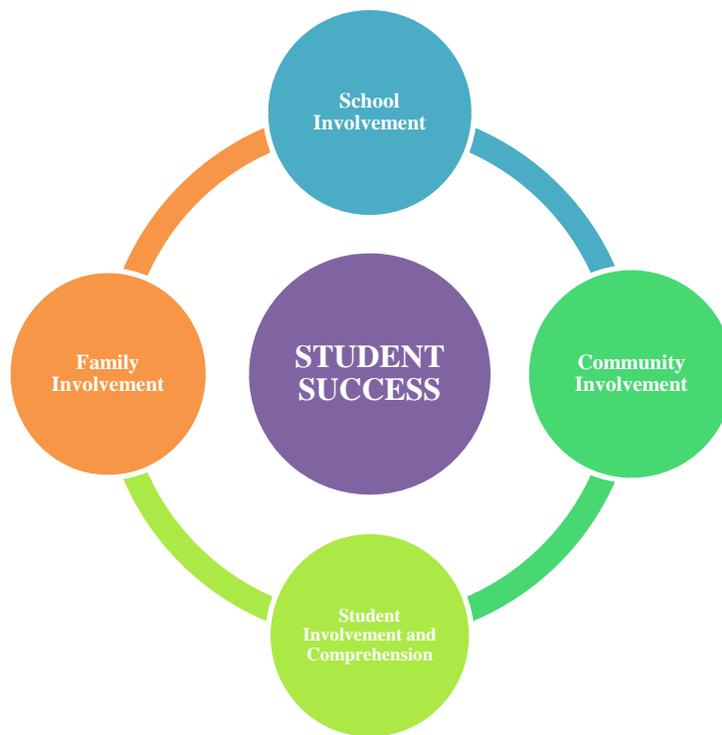


Figure 1: Four Elements of Student Success

Source: Thompson, 2008

This research will focus on one rural Appalachian school district. Educators rarely view the community where their students live as important in influencing the social and cultural dynamics that can often affect school and student success. It is more common to adopt dropout prevention programs that do not have a record of success, use state and national funding to purchase programs, and attend workshops that address the implementation of programs originally designed for populations in other parts of the country. The adoption of such programs without first truly understanding the dynamics of the communities in which we live could fail to produce sustainable improvements in schools and student success. What do we really know about Appalachia?

The media portrayal of Appalachia paints a demoralizing picture of the culture and way of life (Billings, Norman, & Ledford, 1999). Not only is it difficult to present the richness and complexity of a society such as Appalachia, the modern day portrayals of the region equal high national television ratings. Appalachians continue to drown in negative stereotypes often represented and widely accepted in the media, a result of Appalachians not telling their own story or not being heard. Unfortunately, the individuals telling the story often know little about the culture, yet they continue to shape perceptions of its people and traditions. A common myth that surrounds the culture is lack of diversity in the region. The narrow definition of diversity that considers only race causes people to only notice those living among them who look different. Many people do not realize that central Appalachia is home to African Americans, Hispanics and other minority cultures (Hayden, 2004). Although they are few in number, they consider the mountains home as much as the descendents of European cultures. Looking beyond race,

while still tracking it, one can find a plethora of diversities exist in the region. Among groups sharing the same topography, it is easy to overlook the fact that a variety of cultures and socioeconomic groups can be found in distinct urban and suburban areas of the United States. People living within the same county may have distinct cultures and differing socioeconomic statuses with only a few miles separating them. While we are more likely to think of these dynamics when speaking of urban or suburban areas little attention is given to these phenomena by educators and policy makers in rural Appalachian communities. In Appalachia pockets of poverty coexist with wealth and prosperity, creating the groundwork for divisions based on social class in rural schools. These divisions create unique challenges for district school officials when trying to promote equity in the schools. The presence of students from a lower socioeconomic class results in basic needs not being met within the community, thus they must be addressed by the school along with teaching the core content and program of studies required by the state educational system. Rural Appalachian schools are not only institutions of learning but serve as lighthouses for the communities in which they are housed. Oftentimes, it is in our rural Appalachian schools that students who live in extreme poverty have their first, and the only meal of the day.

The selection criterion chosen for the independent variables for the study is deeply grounded in the four elements of student success model. Information obtained from student records concerning gender, race, family status, mobility and grade retention can reveal deficits and strengths relating to student success. This data can offer valuable information to school districts in predicting a future graduate or dropout.

Family Involvement

The first element involves the importance of family. For the purpose of this research, family is defined as a group of individuals living under one roof related by blood, marriage, law or social dependence. The family is the primary agents for social class status, lifestyles, values, cultures, and self-esteem. They are also the primary caregivers and provide economic support. Extensive research can be found regarding the role of family (Anderson & Limoncelli, 1982; Howard & Anderson, 1978; Mahan & Johnson, 1983). This research highlights a direct correlation between family involvement and student success. The relationship exists regardless of race, ethnicity and parents' educational level. The family can instill the importance of education, provide a basis for emotional support and assist students in understanding the expectations of schools and teachers while reinforcing those at home. Phelan (1992) stated that family background, personal problems and school related problems are clusters of factors related to a student's decision to drop out. This research examined the family variable and its role on educational outcomes of the cohort student group. Examples of questions that this research revealed for the cohort includes: What effect does the father have on the educational outcome of the student? What effect does the mother, grandparent or other family member(s) have on educational outcomes?

Community Involvement

The second element involves the importance of community. For the purpose of this study, the community will be defined as a group of people who share an environment or area with common beliefs, values, ethnicity, education and social class. Examples of

communities include a church, school, learning communities, co-curricular organizations, gangs or work environments. Some researchers believe the quality of the residential areas in which students reside is related to school achievement; thus, the community is viewed as a comprehensive place that influences the lives of its residents (Clampet-Lundquist, 1998; Devine, 1996; Garner & Raudenbush, 1991). This idea is particularly relevant for young children whose mobility within their community is limited; an enormous amount of time and energy is exerted within the community environment (Ensminger, Lamkin, & Jacobson, 1996; Furstenburg & Hughes, 1994). On the other hand, research has argued that the community effects amount to family background and social class (Mayer & Jencks, 1989; Solon, Page, & Duncan, 2000). When considered in this context, the influence of family and social dynamics affect the entire community, thus its residents will perform at a similar level (Fields & Smith, 1998).

School Involvement

The third element focuses on school involvement. Schools are traditionally known for their role in educating students however they receive more than the core content of instruction on a daily basis. Many students do not have a healthy home environment. Schools are often responsible for adding to family and community values and, for many students, replacing them with values that lead to student success. “Thus, for many students, the school they attend may be the strongest determining factor in their completing versus dropping out of school” (Christle, Jolivette, & Nelson, 2007, p. 327).

Student Involvement

The fourth element concerns the involvement of the student. Many students have not experienced success and find the road to graduation to be a long and difficult one. In order for students to experience success, Cuseo, Fecas and Thompson (2010) state that students should be actively involved in their learning, utilize available resources, and engage in social interaction, collaboration and self- reflection.

Purpose of the Study

The general intent of this study was to explore factors influencing graduation and dropout rates in a rural central Appalachian school district. Specifically, the study employed a sequential mixed methods design to examine and discuss the issues facing the educational institution and make recommendations of strategies that be utilized to increase the opportunity for student success within the district. This research will add to the literature on graduates and dropouts by focusing on which factors influence student success (defined as graduation) and failure (defined as dropping out of school) in rural central Appalachia. Although the topic of graduation and dropping out have been debated and researched for many years, there is surprisingly, little research focusing on Eastern Kentucky schools and students.

Focusing on achievement theory as defined by Bandura (1993) and operationalizing it within the framework of the four elements of student success model (Thompson, 2008), this current research addresses four research questions:

Research Questions

1. What is the relationship between graduation and ethnicity, gender, family status, mobility, and grade retention for students in rural Appalachia?
2. What is the relationship between dropping out and ethnicity, gender, family status, mobility, and grade retention for students in rural Appalachia?
3. What perceptions do school leaders have about student success in rural Appalachia?
4. What perception do teachers have about student success in rural Appalachia?

Significance of the Study

This study is important because it attempts to understand the uniqueness of the people and place of central Appalachia and the individual communities in which schools are located. It is specifically designed to generate research based recommendations for improving graduation status in a Kentucky rural Appalachian school district, one of the lowest-performing districts in the state. The findings may lead to an increase in student success in K-12 and post secondary education in this region. It can also be argued that the project will indirectly impact the economic vitality of this rural community by giving schools tools designed to review their data in a reflective way in order to increase high school graduation rates, reduce dropout rates, and as a result increase the educational level of the community which will assist in slowly eradicating poverty.

Assumptions and Limitations

The study assumed that the data needed for the research was available at the schools and/or at the district level office and that records were complete and easily accessible for review and data collection. This research examined only one rural Appalachian school district. Although many factors can contribute to students' decisions to graduate or drop out, this study examined variables within the parameters of the four elements of student success model. One could argue that the strength of this study is the same as its limitations. This research examined data unique to the district and will provide the district with the information to assist local officials in making improvements based on quantitative and qualitative research data.

Key Terms

Appalachia: This study utilized the definition of Appalachia provided by the Appalachian Regional Commission. Appalachia is a 205,000 square mile region that follows the spine of the Appalachian Mountains from Southern New York to Northern Mississippi. It includes all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia.

Cohort: The cohort for this study consists of students in this school district who entered kindergarten in the 1995/96 school years and were projected to graduate from the public school system in 2008.

Community: A group of people who share an environment or area with common beliefs, values, ethnicity, education and social class.

Educational Outcomes: This study looked at student data reflectively by showing what happened to the kindergarten students over the course of their educational career while enrolled in this school district. Students may have graduated, dropped out of school, withdrew to enroll in another school district, exited to enroll in private school, or began home schooling as an option. These are all educational outcomes for the kindergarten cohort.

Family: A group of individuals living under one roof related by blood, marriage, law or social dependence.

Family Status: The individual(s) kindergarten student resided with when they enrolled in the rural Appalachian school district (e.g., father, mother, grandmother, aunt, guardian, etc.).

Graduate: A person who completes the course requirements necessary to receive a high school diploma in the state of Kentucky.

Dropout: A student who did not transfer to another school but left the school system before completing the necessary credits needed to earn a high school diploma.

Mobility: The number of times a student changed residences while enrolled in the rural Appalachian school district.

Organization of the Study

The dissertation is divided into five chapters. Chapter one provides the background of the problem surrounding student success in rural Appalachia, introducing the theoretical framework for the study as well as defining key terms used in the study. The historical background is examined in chapter two, a closer look at educational

attainment in the nation, region, state and the county highlighted in this research.

Chapter three introduces the research questions describing the participants, measures and statistical test, research design, and procedure. Chapter four presents the results of the study. Finally, chapter five will discuss possible interpretations of the findings, implications for the rural Appalachian county and suggest future research.

Chapter II

Literature Review

Introduction

Educators rarely turn to the community where their students live and consider the importance of place, the social and cultural dynamics and the role it plays in school and student success. This chapter begins by addressing selected literature highlighting the dilemmas that exist with students graduating and dropping out of school in various geographical settings (national, rural, and rural Appalachia). Understanding the problem in national and rural settings will assist in finding solutions to the problem that continues to exist in rural Appalachia. This research aims to add to literature available on student graduates and dropouts in rural Appalachia. Research has revealed the mistakes that are often made when programs that have been successful in urban settings are adopted for rural settings. “Urban research is the basis for many model programs for preventing dropouts. Such programs, aimed at minority and inner-city youth, are not always appropriate or practical for rural areas” (DeYoung et al., 1989, p. 57). This review of literature will explore a number of variables included as a part of the research study and will provide a discussion of the unique issues facing rural educators. A brief history of Appalachia will also be offered to demonstrate the sense of place the residents have in this community. In the remaining chapters, the problem of low graduation and high dropout rates in the rural Appalachian school district will be addressed by examining ways to: create true systemic change that improves the academic achievement of

students and promotes a positive school culture, offer solutions that focus on the four element model, and provide suggestions that focus on modifying school practices, programs and policies.

The National Dilemma

On March 1, 2010, President Barack Obama spoke of his commitment to solving the dropout problem in the United States by offering 900 million dollars to states that plan to greatly increase the performance of the lowest performing schools. Speaking at the America's Promise Alliance Grad Nation event, the President further stated **“This is a problem we can't afford to accept or ignore. The stakes are too high – for our children, for our economy, for our country. It's time for all of us to come together – parents and students, principals and teachers, business leaders and elected officials – to end America's dropout crisis.”**

On August 29, 2010 during a televised interview with ABC's Christiane Amanpour, Secretary of Education Arne Duncan stated, “In this country, we have a 25 percent dropout rate, that's 1.2 million students leaving our schools for the streets every single year. That is economically unsustainable, and that is morally unacceptable.”

Thousands of students across the nation earn a high school diploma annually. Arguably, the high school diploma signifies a mastery of concepts taught beginning in kindergarten and ending in the 12th grade. It signifies preparation for students to attend a postsecondary institution, join the military, enter the job market, and a host of other opportunities that do not exist without the obtainment of a high school diploma. A successful transition to adulthood and secondary education preparation are not

experienced by all students in this country. National school reform efforts have focused on increasing the number of graduates and decreasing the number of dropouts.

The national dropout crisis has been on the radar screen of government officials for years. The Dropout Prevention Act of 2004 identified certain variables that may signal potential dropouts. These include poor attendance, low grade point averages and standardized test scores, grade retention, disciplinary issues, low socioeconomic status, and mobility (Sparks, Johnson, & Akos, 2010).

Why should the nation care if students drop out? The issue is a serious national problem. Weis, Farrar, and Petrie (1989), authors of the groundbreaking book, *Dropouts from School: Issues, Dilemmas and Solutions*, report on the high costs associated with an uneducated population. Weis et al. (1989, p. 32.) state, “It has been estimated that the nation loses about \$77 billion dollars annually because of school dropouts – \$3 billion in crime prevention, \$3 billion in welfare and unemployment, and \$71 billion in lost tax revenue.” It is estimated that the class of 2009 will cost the nation \$335 billion dollars in lost wages, taxes and productivity over their lifetimes (Alliance for Excellent Education, 2009). “Also it has been estimated that the nation could have saved more than 17 billion in Medicaid and expenditures for uninsured care over the course of their lifetime” (Alliance for Excellent Education, 2006b, p.15). It is commonplace to see a motto throughout the state of Kentucky on billboards and bumper stickers that states “education pays.” According to the U.S. Census Bureau (2006), this motto appears to be true; it states that the average income for a high school dropout in 2005 was \$17,299 compared to \$26,933 for a high school graduate. The difference amounts to almost

\$10,000 annually for those who earn a high school diploma. In addition to income differences, dropouts are more likely to be unemployed, (Alliance for Excellent Education, 2009) are in poorer health and make up a larger number of incarcerations (Raphael, 2004). Data from the federal, state, and local levels show that in 2003, incarcerated inmates were comprised of the following: 60 percent of all federal inmates were high school dropouts, nearly 75 percent of inmates in state prisons were high school dropouts, and 70 percent of jail inmates were high school dropouts (Harlow, 2003). In contrast, high school graduates are less likely to commit crimes (Raphael, 2004), live longer lives, are less likely to rely on government assistance (Muenning, 2005), are more likely to vote and have children who will be high school graduates (Junn, 2005).

According to the National Center for Education Statistics (NCES, 2008-053), nearly four out of every 100 students dropped out of school. Who drops out? Children who live in poverty are at bigger higher risk of dropping out of school. “Students from lower socioeconomic backgrounds with lower levels of self-esteem and poorer grades are more likely to drop than other students” (DeYoung et al., 1989, p. 57). Males drop out at a higher rate than females. Minority students drop out at a higher rate than white students; Hispanic students drop out more frequently than any other minority. It is estimated that if minority graduation rates increased to the levels of white students in the U.S. by 2020, potential increases of personal income would add more than \$310 billion to the national economy (Alliance for Excellent Education, 2006a).

Calculating the Dropout Rate

The calculation of the high school graduation rate national average is a complex and much debated topic. The NCLB Act requires states to use a specific graduation rate calculation, however inadequate definitions disparities in the implementation have led to graduation rate calculations that are misleading and inaccurate measurements even though that was not the intention of the law. Independent researchers have confirmed that the national dropout rate is higher than reported, and most experts agree that the estimates offered by them are considerably more accurate than the estimates offered by government resources. Currently, the average difference between the rate reported by states and independent resources is 11 percent (Alliance for Excellent Education, 2009). This also holds true for the state of Kentucky where the graduation rate reported for NCLB for the 2005-06 school year was 83 percent; the U.S. Department of Education calculated the rate at 77 percent for the same year and Education Week calculated the rate at 72 percent (Alliance for Excellent Education, 2009).

Currently, the U.S. Department of Education utilizes a number of different methodologies to calculate the dropout rate. The four categories used to calculate a dropout are event dropout rate, status dropout rate, status completion rate and averaged freshman graduation rate. The following are definitions for each methodology as defined by the National Center for Educational Statistics (NCES 2009-064, p. 4):

- Event dropout rate: An estimate of the percentage of high school students who leave high school between the beginning of one school year and the beginning of the next without earning a high school diploma or its equivalent (e.g., a GED).

- Status dropout rate: the percentage of individuals in a given age range who are not in school and have not earned a high school diploma or equivalency credential.
- Status completion rate: the percentage of individuals in a given age range who are not in high school and who have earned a high school diploma or equivalency credential, irrespective of when the credential was earned.
- Averaged freshman graduation rate: An estimate of the proportion of public high school freshmen who graduate with a regular diploma 4 years after entering the 9th grade.

Beginning in the 2010-2011 school year states will be required to report a uniform graduation rate. The four year adjusted cohort rate will measure the percentage of students in a ninth grade cohort that graduate with a regular diploma in four years or less.

Grade Retention

Repetition of a grade before a student enters high school is a common occurrence. To better understand the impact grade retention has on graduation rates in Eastern Kentucky, it is important to examine research findings in support of and against this common practice. The National Association of School Psychologists (NASP) (2003) found that at least 15 percent of students are retained each year. In addition, between 30 and 50 percent of all students will repeat a grade before they enter high school (Alexander, Entwisle, & Kabbani, 1999). Which students are at risk of repeating a grade? They are often male, African American or Hispanic and from families who live in poverty (NASP, 2003). From 1996 to 2007, the percentage of students in grades

kindergarten through eighth grade who had ever been retained remained between nine and eleven percent of students. In 2007, approximately 10 percent of K-8 students had been retained (NCES, 2009-081). The percentage of students from poor families who were retained in 2007 totaled 23 percent compared to 11 percent of students from near-poor families and five percent of students from non-poor families (NCES, 2009-081).

Teachers recommend retention for many reasons including developmental or emotional immaturity, failing to meet academic success in the classroom, and poor attendance because of truancy or sickness. Teachers are typically the decision maker in determining if a student should be retained, yet their final decision can be influenced by input or pressure from administrators or parents (Kelly, 1999). A study conducted by Witmer, Hoffman, and Nottis (2004) sought to develop an assessment of the knowledge teachers have about the subject of grade retention. In order to accomplish this, Witmer, et al. (2004) wanted to add the assessment to a pre-existing instrument called the Teacher Retention Belief Questionnaire which was developed by Tomchin and Impara in 1992. The revised questionnaire developed by Witmer et al. (2004) was distributed to 35 teachers and resulted in the following findings. Consistent with previous research on the subject (Byrnes & Yamamoto, 2001; Enters, 1994; Tomchin & Impara, 1992), Witmer et al. (2004) found that teachers believed retention was an effective practice in preparing students for academic success. In addition, teachers of younger elementary students and older elementary students had differing views on the subject of grade retention (Tomchin & Impara, 1992; Witmer et al., 2004). Teachers of kindergarten through 2nd grade students tended to disagree more strongly than teachers of students in 3rd and 4th grades

that retention was a useful tool in maintaining grade level standards (Witmer et al., 2004). In addition, teachers of kindergarten through 2nd grade tended to disagree more strongly than teachers of students in 3rd and 4th grades those students who did not put forth effort and direct their efforts toward their studies would be considered for grade retention (Enters, 1994; Tomchin & Impara, 1992; Witmer, Hoffman, & Nottis, 2004). Teachers in the study considered a number of factors when retaining students, with the primary factor identified as academic performance (Nason, 1991; Reynolds, 1992; Witmer, Hoffman, & Nottis, 2004). Additional factors given consideration when making a decision to retain included ability, effort, and social and emotional maturity (Witmer et al., 2004).

Research has shown that teachers' knowledge concerning research on the matter of grade retention is limited and that a discrepancy often exists between personal experience and knowledge of the subject (Shepard & Smith, 1989; Witmer et al., 2004). Teachers who participated in the study conducted by Witmer et al. (2004) cited personal experiences with retained students as their primary source of knowledge, followed by discussion with colleagues. This finding supports previous research (Kagan, 1992) which found that teachers change their personal beliefs based on experiences and shared experiences rather than gaining knowledge from current research on the subject (Witmer et al., 2004).

Although the majority of the research maintains grade retention has negative effects, there are those in support of the practice. Supporters argue that grade retention improves student achievement because it gives an individual student more time in a

particular grade (Natale, 1991). The argument is that all students learn at different rates, thus additional time may be needed because of a student's failure to meet the required standards for that grade. Some states and urban districts have begun to formalize requirements for promotion due to high-stakes testing conducted at the end of the academic school year. This process has decreased the role of the teacher in the final decision as to whether a student should be retained (David, 2008).

Supporters appear to place more importance on student learning deficits and less importance on instructional practices. In order for students to be successful academically it is important for students to attend school daily. Students are sometimes retained due to an excessive number of absences based on a variety of factors, missing critical academic information that could lead to advancement. Factors that influence student absence may include illness, truancy, or repeated instances of school suspensions related to poor choices.

In addition to school initiated factors, parents may agree to retain their child based on immaturity compared to other classmates (Light & Morrison, 1990). As an example, in Kentucky, students must be five years of age by October 1 in order to enroll in kindergarten. Parents may suggest that because their child was born in July, which represents younger students in the class, their child may not have the social skills necessary for the next grade and choose to retain the student.

Many argue that grade retention practices can lead to various negative effects on schools, community and students. Those who oppose grade retention argue that there is a long term negative impact that cannot be ignored. Research has shown that retention is

not an effective practice in accomplishing success in the classroom in the long-term (McCoy & Reynolds, 1999; Meisels & Liaw, 1993; Owings & Magliaro, 1998; Shepard & Smith, 1989). Unlike supporters of grade retention, opponents argue that this practice does not improve student achievement; rather it may damage a child's self-esteem, increases academic failure, leads to higher dropout rates and cause poor classroom conduct. Students who choose to drop out are five times more likely to have been retained than student graduates (NCES 2006-071). The third most stressful event in a child's life surpassed only by going blind and losing a parent is repeating a grade (Shepard & Smith, 1990). Research by Byrnes and Yamamoto (2001) calls attention to students' personal worth who have been retained. Roderick (1995) notes that grade retention practice can not only lead to additional grade retentions but also promote behavior problems in students. Some researchers warn that because retention can lead to behavior problems, teachers need to consider the students who are in the appropriate grade. They may be in class with other students who are exhibiting negative behavior. Students who are retained report it as a negative experience. When asked how they were notified that they were being retained, one study reported that students were informed via a report card at the end of the school year or from a family member rather than being told by a teacher (Byrnes & Yamamoto, 2001). In addition to the impact on the student, the literature indicates retention has an impact on the school budget. Opponents argue that it is expensive to retain students. There are additional costs involved for the school district when students must repeat the same grade (Thomas, 1992). Those supporting this view state that money could be better spent. Thomas (1992) argues that funds could be better

spent on additional teaching staff to provide more individualized instruction as a preventative measure.

Student Mobility

Research has also found that student mobility has an impact on academic success (Astone & McClanahan, 1994; Rumberger & Larson, 1998; Swanson & Schneider, 1999). Haveman, Wolfe, and Spaulding (1991) conducted an analysis of the University of Michigan's Panel Study of Income Dynamics. They found that a change in a child's location at the ages of 7 years or younger or ages 12-15 has a profound and negative effect on student achievement. Adolescents who are mobile during high school face an interruption in their social group, school, and physical location; these items are harmful to academic performance. A location move for young children (age 4-7) was also found to have a negative impact (Haveman et al., 1991). A study of students in the third grade found that frequent changes in schools often resulted in a myriad of problems including nutrition and health, below grade-level scores in reading, and grade retention (U.S. General Accounting Office, 1994). Studies conducted by Astone and McLanahan (1994) and Smith (1995) found that students who experienced a school move in elementary or high school were more likely to drop out of school. A study conducted by Rumberger and Larson (1998) found that students who changed schools even once between the grades of eighth and twelfth were less likely to complete high school, even when student and family background and educational experiences were taken into account in the eighth grade. This same study found that student mobility occurred as a result of experiences other than a residential move. School experiences such as absenteeism, educational

expectations, academic performance, and misbehavior all had a powerful influence on whether students chose to change high schools and eventually earn a high school diploma (Rumberger & Larson, 1998). Increased mobility results in discipline problems and are associated with increased rates in school crime (Chen, 2008), greater rates of suspension (Engec, 2006), and a decrease in student classroom participation (Gruman, Harachi, Abbott, Catalano, & Fleming, 2008).

Mobility and the Rural School

Literature on student mobility has found that rural schools face larger challenges when dealing with mobility (REL 2010-089). Studies of student-level data in several states including Louisiana (Engec, 2006), Illinois (Beck & Shoffstall, 2005) and rural Pennsylvania (Lesisko & Wright, 2009) have found that as mobility increases, students score lower on assessments. The tendency of rural schools to be smaller in nature when compared to other schools means that a few mobile students can have a profound effect on the overall performance whereas larger schools are not as affected (Vermont Department of Education, 1998). Research conducted by Schafft (2005, 2006) and Schafft and Killeen (2007) found that rural schools typically have smaller staffs and fewer financial resources, thus meeting the academic needs of mobile students is more difficult. In addition, students who are highly mobile affect how the rural school is able to project staffing needs and a reallocation of resources when needed, especially in cases of larger overall classroom size and special needs students (Thorson & Maxwell, 2002).

Parental Involvement and Student Success

A study conducted by the National Center for Education Statistics (NCES 98-091) concluded that the involvement of both parents in the education of students and the level of that involvement had an impact on student success. The study found that the involvement of fathers in the educational experience affected student success in a positive manner, regardless of whether the father lived in the home or not. Further, when both parents are present in the home, father involvement has an impact and direct influence on grade retention, grades earned, and participation in extracurricular activities. This impact was found to be relevant after controlling mother involvement in the school and additional factors. For students in single-parent homes where the father is the head of household, involvement of the father in the educational experience increases the likelihood that the student will receive primarily A's and reduces the likelihood of suspension or expulsion. For students whose fathers are not present in the home, involvement of the father in the educational experience results in a reduction in the likelihood of suspension or expulsion and grade retention occurring after controlling mother involvement in the school and additional factors.

Parental Expectations

Research on familial influence in educational attainment has shown that the impact is significant (Thompson & Luhman, 1997). Literature concerning the subject of educational attainment has shown that low educational attainment of parents, particularly mothers, has a negative effect on student achievement (Tompkins & Deloney, 1994). Research has shown that children of parents who have high expectations for their

educational goals earn higher grades, score higher on standardized tests, and remain in school longer than children whose parents have low expectations in the areas of student achievement and educational attainment (Davis-Kean, 2005; Pearce, 2006; Vartanian, Karen, Buck, Cadge, 2007). In addition, parents who have high expectations of their children are often able to counteract any low expectations by teachers (Benner & Mistry, 2007; Zhan, 2005). However, parents with little to no education and fewer resources tend to feel helpless when their children need assistance with school work when compared to parents who have education and resources. These parents are also not as likely to be at ease with communicating with teachers and school leaders (Coleman & Karraker, 1997; Lareau, 1989; Yamamoto, 2007; Zhan, 2005). As a result of this, parents from lower socioeconomic backgrounds and whose educational attainment levels are minimal may develop lower academic expectations for their students (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Dumais (2006) stated students internalize expectations of parents as a social process that “forms one’s worldview and serves as a guide throughout an individual’s life.”

A longitudinal study conducted by Rutchick, Smyth, Lopoo and Dusek (2009) of 884 children ages 6-13 at the beginning of the study found parental expectations have a long lasting effect on children’s expectations; this was true for the children involved in the study five years later after controlling for various demographic variables and prior achievement scores by the students. Parental expectations may have an effect on student achievement by expressing their beliefs about the child’s abilities and capabilities. As a result, students believe in their own academic abilities and have a sense of self-efficacy

concerning their educational career (Eccles, Adler, & Kaczala, 1982; Eccles, Wigfield, & Schiefele, 1998). Parents who consider education important and have high expectations for their children are more likely to be engaged in educational activities such as reading to their children, observing their academic progress, and ensuring they participate in extracurricular activities (Halle, Kurtz-Costes, & Mahoney, 1997; Sy & Schulenberg, 2005).

The affects of high expectations of parents can also have far reaching implications in the classroom. Teachers who encounter parents with high academic expectations may be more likely to pay attention to their children in the classroom because teachers are under the impression their messages are being conveyed and reinforced in the home environment. In addition, teachers may increase their own expectations of students whose parents have high expectations and increase the commitment to the students in the classroom (Bandura et al., 1996). Regarding the practice of grade retention, Lareau (1989) found that the decision to retain a student or promote them to the next grade level was dependent on the teacher's perception of parental involvement in the educational process. Low-achieving students with highly involved parents were more likely to be promoted while students who performed similarly and had parents who were perceived as not involved were more likely to be retained.

Teacher Expectations

Dumais (2006) found that parents from lower socioeconomic backgrounds were less likely to feel welcome in the school than parents from higher socioeconomic backgrounds. As a result of this, teachers were more likely to have lower expectations of

the children's academic skills. Students who have teachers that have high expectations of them are more likely to experience a challenging classroom environment and a positive learning experience (Yamamoto & Holloway, 2010). Weinstein (2002) found students whose teachers had high expectations for them were more likely to receive positive feedback, asked to lead classroom activities, and offered more academic choices. In contrast, students whose teachers had low expectations for them were more likely to receive negative feedback, less attention, and recommendations to be placed in lower-level classes.

Individual Student Expectations

Students with an internal locus of control believe they are in charge of their educational future (Cuseo et al., 2010). Research has demonstrated that students with a strong internal locus of control exhibit the following: increased independence and self-direction (Van Overwalle, Mervielde, & De Schuyter, 1995) are more truthful in their self-assessment (Hashaw, Hammond, & Rogers, 1990; Lefcourt, 1982), and achieve higher levels of learning and educational attainment (Wilhite, 1990). Students with an internal locus of control credit their success to internal factors such as self-esteem and self-concept rather than external factors such as fate and others (Hass, 1989). A positive self-concept has been found to be an advantageous trait which can serve as a mediating variable in achieving attainment (Marsh, 1990). Numerous studies have found that a positive self-concept is an important component of a student's foundation when it comes to making progress in educational goals and attainment (Coopersmith, 1967; Purkey, 1970; Wylie, 1979). Research has shown that the amount of effort students put forth in

pursuit of educational achievement (e.g., time and energy) has a profound impact on their academic success (Astin, 1993; Kuh, 2000). Additional research has shown that the way in which students feel about their school or how they perceive they fit in the school (school attachment) is positively related to student achievement (Johnson, Crosnoe, & Elder, 2001; Roscigno & Ainsworth-Darnell, 1999).

Poverty

Low education is linked to persistent poverty. Gibbs (2003) states “The quarter of nonmetro counties with the lowest high school completion rates include two-thirds of all persistent poverty counties. A third of adults in persistently poor counties, on average, lack a high school diploma (p. 4).” A cycle of uneducated citizens results in an unstable work force and low-wage economy. In addition, these poor counties have little to no tax base or the social and community capital to support their schools and educational system (Gibbs, 2003). Economic distress becomes the norm for these areas of the country.

The Relation of Socioeconomic Status and Student Achievement

Research has consistently found that students from higher socioeconomic backgrounds perform better in educational achievements (Coleman et al., 1966; Jencks et al., 1972). Rist (1970) conducted a study by observing a kindergarten classroom for one year. He found that by the eighth day of class, the teacher had separated the students into groups largely based on their socioeconomic status. There were no significant differences in IQ scores among these groups of students (Rist, 1970). A study conducted by Auwarter and Aruguete (2008) of 106 teachers in a rural public school district in central Missouri found that teachers rated students from low socioeconomic backgrounds

as having less promising futures than students from high socioeconomic backgrounds. Teachers who consider socioeconomic background as a mitigating factor in educational achievement are likely to feel they are ineffective when working with these students (Auwarter & Aruguete , 2008). Benner and Mistry (2007) found that low expectations by adults were associated with disrupting the educational performance of low-income students.

Issues and Dilemmas in Rural Education

Whether a student is from an urban, suburban or rural area, research findings indicate that geographic location is not a significant predictor of dropping out (Singh & Dika, 2003). Research does suggest that it is important to understand the community in order to comprehend how schools function and the affect community has on educational failure (Khatti et al., 1997). Those living in rural communities travel to urban areas for employment, shopping, entertainment and services that are not available in smaller communities. Jobs available in rural areas are generally part of the secondary labor market and tend to require low levels of education, offer low wages and have little or no benefits (Shaffer & Seyfrit, 2000). In general, rural students have lower career aspirations, and fewer graduates prepare for and enroll in postsecondary education (Gibbs, 2000; Perroncel, 2000). Students from rural areas who obtain a postsecondary degree do not return to the community, thus the economic development of the area has little chance for improvement. The population remaining in our rural towns represents a higher percentage of high school dropouts dependent on government assistance. Those who are employed have jobs that do not require a high school diploma. The amount of

money a family receives from government assistance is sometimes more than salaries earned from local jobs. These dynamics make it nearly impossible to attract big businesses to these rural towns. Why would large corporations want to build a manufacturing plant in light of these dynamics?

The number of senior citizens in need of health care is growing in many rural areas such as Eastern Kentucky. Both the elderly and youth populations in these areas are less likely to have access to health services; they are also less likely to be able to afford health insurance. Due to low household income and logistics, rural children may be less likely to receive needed medical attention (Perroncel, 2000). Addressing the medical needs of the rural community requires advanced training in healthcare, a demand that our rural communities cannot address from within. By confronting the vital issue of improving graduation rates, we as educators, are in fact improving the quality of life in rural communities.

Rural public schools depend on state funding more than city and suburban schools (NCES 2007-040). One of the many issues that rural school districts face is the threat of consolidation due to a lack of funds and declining enrollment. In the current environment schools, like other organizations, are forced to consider efficiency of operation (Bickel & Howley, 2000) which can lead to consolidation and the idea that bigger is better (Boex & Martinez-Vasques, 1998; Keller, 2000; Lyons, 1999; Stevenson, 1996). Although rural schools (and urban schools who qualify) receive federal funding such as Title I, rural educators are concerned that the funding formula is flawed. Elements of the Title I funding formula favor larger districts and create acute inequalities for rural districts (i.e.,

larger districts receive more Title I funding per eligible pupil than smaller districts, even when the smaller districts have higher rates of poverty; Strange, 2009). Less populated areas may receive less funding than densely populated areas; however the allocation does not consider the reality of the high cost of transportation in rural areas (Caudill, 1993). Rural students who live in isolated areas often have long bus rides to school (Khattri et al., 1997). Transportation costs are a large portion of school budgets. Rural school districts are also often faced with the reality of closing schools because of low funding (Starr & White, 2008). One such book that highlights the effects of school closings in rural Appalachia is DeYoung's (1995), *The Life and Death of Rural High School: Farewell Little Kanawha*, which tells of the realities of school consolidation. It becomes increasingly difficult for rural schools to recruit and retain teachers due to low salaries. Shortages exist in critical subject areas such as math and science. In addition, rural schools have difficulty filling vacancies in the areas of ESL and foreign languages (NCES 2007-040). It is important to note that the demographics of rural schools are also changing. The recent growth in the minority population is due to an influx of immigrants in less populated areas. According to *Why Rural Matters 2007: The Realities of Rural Education Growth* (Johnson & Strange, 2007), "As rural America grows increasingly diverse; the need for adequate resources and supportive policy environments to meet the needs of English Language Learner (ELL) grows ever more important."

Teachers spend a large percentage of their time teaching cross-age, multi-grade groups of students (Starr & White, 2008). Course offerings and programs such as Gifted and Talented are often difficult to access in rural schools. In addition, the availability of

course work is limited. An increased number of special education students are typically found in the rural classroom. There is also a higher turnover rate of principals and superintendents in rural districts. Principals and district leaders must learn to wear a lot of hats as they are responsible for several jobs in the district. Many principals are the instructional leaders in both the middle and high schools. This is a difficult task which can include twice the amount of paperwork for state reporting and other requirements.

Achievement gaps exist between the majority population and minority population in schools nationwide. It is a particularly critical social issue in rural areas that are characterized by high levels of poverty (Bickel, 2002; Duncan, 1999; Khattri et al., 1997; Schafft, 2005). One report that covers the state of rural America and education in the nation is titled *Why Rural Matters 2009: State and Regional Challenges and Opportunities* (Johnson & Strange, 2009). The purpose of this report is to improve the quality of teaching and school leadership, advocate for appropriate state education policies and address key issues to bring about equitable and adequate funding for rural schools. The goal of the report is to bring attention to the importance of rural education in the United States. Students are not performing well on national assessments and graduation rates are low; each demonstrates urgency for our nation to address the needs of rural schools. The authors support their argument by addressing a variety of issues facing rural areas today; for the most pressing issues, they stress how important it is for a state to address the issue now. Realizing the complexity of the issues, Johnson & Strange (2009) choose to have readers look at the issues through a variety of lenses. States are ranked based on each issue. The report centers around five gauges: importance,

student/family diversity, educational policy context, educational outcomes and concentrated poverty. Each gauge is comprised of five indicators. For example, the importance indicator measures the total number of students in a rural public school and the funding allocated for that school. The student/family diversity indicator looks at variables to the extent of which certain groups are historically underrepresented (e.g., ELL population, minority students, and economically disadvantaged students). The educational policy context gauge measures equity and distribution of state and local revenues among rural schools. It also contains an organizational scale with the size of the school districts. The educational outcomes gauge displays variables that measure the level of academic performance in rural schools in the state (e.g., rural math/reading National Assessment of Educational Progress (NAEP) state scores, high school graduation rates). The final gauge, concentrated poverty, is new to the report. This gauge identifies highest poverty schools or the top ten percent of rural school districts within any state to create a subset of districts for each state. Johnson & Strange (2009) compare cross states using the subset. By looking at socioeconomic status, each state is ranked on the gauge with one being the most important or urgent and 50 being the least urgent.

Regarding the socioeconomic challenges gauge, Kentucky was in the urgent range in the *Why Rural Matters 2007: The Realities of Rural Education Growth* report (Johnson & Strange, 2007). The percentage of rural adults with a high school diploma was 74.6 percent, the lowest level of rural adult educational attainment in the United States. In the

Why Rural Matters 2009: State and Regional Challenges and Opportunities report, Kentucky is listed as critical in the concentrated poverty gauge (Johnson & Strange, 2009).

The Uniqueness of the People and Place of Central Appalachia

As previously stated there are many challenges in a rural setting, and specifically in schooling in Appalachia. This study will center on one rural Appalachian school district. What and where is Appalachia? The aforementioned uniqueness of Central Appalachia can only be comprehended by gaining an understanding of the history of the region. Thus, to appreciate Appalachia's relevance to American history it is necessary to understand a brief history of the region and the educational challenges facing the region. Just as the Appalachian region is located in many states, the dropout crisis is not limited to one state or area. For example, one may find more similarities in educational attainment levels between Eastern Kentucky and West Virginia than when comparing Eastern Kentucky with other areas in Kentucky.

Appalachia is rich in historical beauty that is unique to the people and place. Immigrants came to the mountains seeking land, more freedom, and new opportunities not found in their homeland (Drake, 2001; Williams, 2002).

The name Appalachia comes from the Appalachee Indians. Believed to be over 400 million years old, geologists have found the Appalachian Mountains to be the oldest mountains in North America. As unique as the people who live in the region, the mountains are home to a variety of plants (i.e., azalea is believed to have originated here), thousands of animal species, winding creeks, lakes and streams. The land would have

been viewed by the Native Americans and early explorers as rich in natural resources and fertile soil in climatic zones that are ideal for human survival (Williams, 2002). The area commonly referred to as Appalachia consists of the Appalachian mountain chain which stretches from northern Mississippi to southern New York. Where is Appalachia? The Appalachian Regional Commission (ARC) defines Appalachia as all of West Virginia and parts of 12 other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia. Eastern Kentucky is located in the Central Appalachia region (ARC, n.d.).

In the same way an Appalachian quilt is colorful and beautiful, so too is the mixture of people who settled in this region. The story of its inhabitants begins long ago with the Native American people, the first Appalachians. Although a diversity of Native American tribes existed in the mountains of Appalachia, the Cherokee people were the dominant group. Cherokee people were farmers who primarily grew corn. Unlike Western cultures today, the Cherokee tribe was matrilineal. Women were the head of the household and in charge of the economic staple which was corn. When whites came to the area, they settled along the coast. Although forbidden by the British, colonists began moving west beyond the coastal areas to the Appalachian Mountains. White settlement in Eastern Kentucky came in the 1760's. Immigrants arrived from Scotland, Ireland, Germany and England in addition to slaves from Africa. Explorers, such as the famous Daniel Boone who founded Fort Boonesboro in 1775, came to Eastern Kentucky in the 1770's.

Many Appalachian writers have captured the importance of a sense of place in the region. They include Harry Caudill, James Still, and Gurney Norman to name a few from the region. Kentucky author Wendell Berry (2000) describes Central Appalachia as a beautiful and complex place in the book entitled *Jayber Crow*. “Finally I realized and fully accepted that I would belong entirely to memory, and it would then not be my memory that I belong to (p. 24).” Appalachia is a place and people that have changed yet lost in time. *Jayber Crow* captures the complexity of life in rural Appalachia. The main character, Jayber Crow, spent most of his young life wanting to forget Port William and the surrounding community. His young life included a sad beginning with the loss of his parents, his great uncle and aunt and living in an orphanage. His life takes him to other cities such as Lexington, but it is when he finally comes back to Port William that he feels a sense of place. Like Jayber, those from Eastern Kentucky feel a sense of community. It is home to fathers, grandfathers and great-grandfathers; family roots are deeply buried. Jayber gets excited when he finally returns home. He describes his coming back home to “birds back in their nest.” There is a sense of comfort, safety, and beauty found nowhere else. One of the sad realities of the fictional town of Port William, like many Eastern Kentucky towns, is a slow death of local resources. Port William loses the local school, town doctors, farms, and eventually Jayber’s barbershop. Berry also talks of physical barriers faced by those in the community and the isolation from the latest trends or ideas that come from being outside of place (Berry, 2000).

Today, many in the region farm as did their forefathers and the Native Americans before them. Crops such as tobacco and corn are common in Eastern Kentucky. Media attention highlights the poverty suffered in the region. Central Appalachia, the focus of this research, is mired with the highest rates of poverty in the nation. Although perceived as another world, the depths of poverty in Appalachia are not faced in isolation. Noted in his book *Uneven Ground*, Appalachian historian Ronald Eller states, “We are all Appalachians. The ownership of the problems perceived or real in Appalachia is one of national ownership” (2008, p. 8).

Coal mining remains one of the biggest industries in Appalachia. Bituminous coal, the most common and most widely used in the United States, can be found buried in the mountains of Eastern Kentucky. Underground mining and the more popular and controversial surface mining are both still used to extract coal in Eastern Kentucky.

Appalachian culture is known for quilting, basket making, wood carving, and music. Appalachian music, currently called country music, is loved by many throughout the nation and world. Common instruments used in the string band were brought to this country by the Scot-Irish, Africans, Italians, and Spanish people. The beautiful sound of the string bands and the history of the instruments used to create that aesthetically pleasing sound remind us that Appalachia, like its music, brings the best of many cultures together to create a rich heritage.

Educational Attainment in Appalachia

How does Appalachian educational attainment compare to the rest of the nation? The Kentucky Education Reform Act (KERA) has been credited with reducing the

inequities of resources and poor teacher quality. It has also been credited with reducing the number of poorly constructed buildings that were built prior to World War II and reducing the number of teachers who were teaching outside of their area of expertise. Prior to school reform, Kentucky did not choose to invest responsibly nor did the state have adequate resources for the Appalachian region. As a result, many students failed to meet college entrance requirements. Many students who successfully entered college were required to take remedial math and reading classes, resulting in a longer and more expensive college journey. For some, this difficult journey ended before they could successfully obtain a college degree.

Although many states like Kentucky continue to show improvement in the number of high school graduates, the eastern region of the state continues to lag behind the nation in regards to educational attainment. The previously mentioned research on rural areas outperforming urban areas in the nation does not appear to be the case in rural Central Appalachian counties in Kentucky. The high school completion rate for Eastern Kentucky is the lowest of all sub-regions in Appalachia for all age levels (Haaga, 2004). There is little research available concerning factors that influence the graduation and dropout rates for this area of the nation. In addition, few suggestions to increase student achievement in this unique region of the country exist after analyzation of the data available.

There are a number of negative effects from dropping out of school, yet the Appalachian student who obtains a high school diploma and enters postsecondary education faces a number of challenges. The percentage of Appalachian students earning

a college degree continues to lag behind the nation (Haaga, 2004). What is unique about the rural Appalachian college student and the struggles they face? The rural Appalachian student is viewed as both an opportunity and a challenge for colleges. Many rural Appalachian students are the first in their family to attend college. The decision to go to college and the decision to remain in college are often decisions based on the parent's educational level. Getting students to enroll in college is difficult, especially first generation students. Keeping them in college is even more difficult. Some of the primary factors affecting academic persistence are home, culture and family, financial concerns, internal locus of control, relationships and emotional support. Each of these factors has been shown to have a definite impact on the academic persistence of a first generation Appalachian student. Postsecondary education views the rural Appalachian student as at-risk. College instructors, advisors, and administrators must be committed to a deeper understanding of the complexity of a first generation college students' experiences in order to take steps assist them in being successful academically (Hand & Payne, 2008).

According to the U.S. Census Bureau (2000) and the Kentucky Council for Postsecondary Education (2008), 25.9 percent of the state's population does not have a high school diploma. This is equivalent to over one million people in the state of Kentucky. Of the Kentucky high school students who enter college, 45.9 percent of students have developmental needs in one or more subjects. More than 35 percent of students entering college have a developmental need in math (35.4%) and 28.6 percent have a developmental need in English. In 2007-2008, Kentucky lagged behind the nation

in average freshman graduation rates. In the same year, the highest graduation rate in the nation was found in Wisconsin at 89.6 percent; the lowest was in Nevada at 51.3 percent. The average freshman graduation rate for Kentucky public high school students and number of graduates shows that in the 2007-2008 school year, 74.4 percent graduated within four years (NCES 2010-341).

According to U.S. Census Bureau (2000) data and the Kentucky Council on Postsecondary Education (2008) graduation rates for various Eastern Kentucky counties are extremely low compared to national and state averages. Kentucky continues to struggle when compared to many other states with the number of students who graduate high school and those obtaining postsecondary degrees. Nearly one million Kentucky adults function at low literacy levels and one out of every five Kentuckians do not have a high school diploma.

What about future demands for employment in Eastern Kentucky? Professional and related services are projected to remain in high demand as the needs of the population continue to increase in Eastern Kentucky. For example, healthcare services are expected to be in high demand in the future. Research suggests that increasing the number of high school graduates and decreasing the number of dropouts in rural Appalachia enhances the overall well being of a community.

The County

There is a wealth of history to be found in the people and place of this rural Appalachian community. Historians often refer to counties in this part of Appalachia, Kentucky in literature regarding early settlement and development in Appalachia (Drake,

2001; Eller, 2008; Pudup, Billings, & Waller, 1995; Williams, 2002). The county can be found tucked in the Central Appalachian Mountains and in the Eastern Coal Field region of the state. The county history dates back to its establishment in the early 1800's. The county seat has approximately 1,700 residents.

Early settlers were drawn to the area because of the wealth of resources. This Appalachian county, like many others, was not always poverty stricken. In the book entitled, *The Road to Poverty*, Billings and Blee write about the early days of one such rural Appalachian county:

“Longstanding traditions about how we think about Appalachia make it difficult to conceive of industry and commerce flourishing in Eastern Kentucky as early as 1806, as well as an industry that would depend heavily on slave labor. Images of Appalachia as isolated folk society, such as in ARC’s representation of the region even in the 1960’s as a “region apart” stand in the way of understanding Appalachian Kentucky’s actual historical development and the road it followed to today’s economic hardship” (Billings & Blee, 2000, p. 28).

The Road to Poverty is a book that challenges the stereotypes of Appalachia. It explores the roots of poverty in Central Appalachia by taking a look at the history of poverty and the making of wealth. This book builds on a longitudinal historical analysis of a rural Appalachian county completed by James Brown. His sociological research began in 1942 and lasted until the 1970's. The authors believe it to be the longest running sets of longitudinal data currently available on a U.S. rural population. The authors find that this rural Appalachian county, like many other places in the nation, was

founded in a similar way. The authors challenge stereotypes depicting Appalachia by describing the county at the turn of the 19th century as having an economically diverse population; more than a century later the county started to become economically insignificant (Billings & Blee, 2000).

What happens to the people of the region when such resources are taken or cease to exist and little is left for those who remain? Does that have any connection with how one feels about their sense of place? How did the citizens of this antebellum Appalachian county feel about their sense of place compared to the citizens of the county today? One can only imagine.

The Appalachian School District Dilemma

The school district officials in this rural Appalachian county are concerned about the number of students that appear to be disappearing from the schools. School officials documented in the 2005-2006 school year that 217 students entered the local high school as a freshman. Only 67 percent of the original 9th grade students graduated on time four years later and walked across the stage to receive their high school diploma from the district. This is much lower than the national rate of 75 percent of students graduating from high school on time 4 years after entering the ninth grade (NCES 2009-081). Further district investigations revealed that in 1996 almost 50 percent more students were in the original kindergarten class. What happened to the students in this county? Why did so many unsuccessfully graduate on time with their original class? School officials have spent state and local funds purchasing many dropout prevention programs but none have proven to be successful for this rural Appalachian school district. Using a

prescriptive approach to the dilemma, this researcher examined available data from the county. The objective of this research is to generate research-based recommendations for improving educational outcomes in this rural Appalachian school district. This current research endeavor is crucial to this district given that answers to these questions could result in changes in policies and procedures. It could also provide valuable data to help the district successfully predict a graduate and dropout therefore helping to explain the flight of students that exists in the county schools. The ripple effect of this project could be highly beneficial to the county at large and add to the research on student success for rural Appalachian students. It is also possible that in helping the district to predict a graduate and dropout, the economic vitality of the community could increase by producing a greater number of high school graduates for the county and increasing the educational attainment of the potential workforce.

This rural Appalachian county has one of the highest poverty rates in the United States. The median household income in 1999 was \$16,339. Per capita income in 1999 was \$9,882 and families living below the poverty level totaled 35.1 percent. Individuals living below the poverty level totaled 39.4 percent. The percentage of the population who has a high school diploma is 49.3 percent and 7.8 percent have a bachelor's degree or higher (U.S. Census Bureau, 2000).

In 2005-2006, this public school district has a total of eleven schools (NCES, 2008). There were nine elementary schools which will be referred to as elementary 1 through elementary 9 to protect the confidentiality of the individual schools. Reflective of the literature available on rural schools highlighted in this report, recently, one of the

elementary schools closed as a result of consolidation due to the lack of funds. There is also a county middle school, an alternative school and one county high school. There are 4,049 students in this district, 309 classroom teachers, 3 ELL students and 875 students receiving special education services. All schools receive Title I funding except the high school. Although not included in this research, it is interesting to note that there are also 3 non-public schools in the district with an enrollment of nearly 500 students.

In 2006-2007, the county high school had an enrollment of 1,061 students (511 males and 545 females). The racial makeup of the school was 98.6 percent White. There are 8 African American students and 1 student indicated as other race. There are 60.4 percent of students who are eligible for free lunch and 5 percent who are eligible for reduced lunch prices. There are 67 full time certified teachers with a student/teacher ratio of 15:1.

Addressing the Problem of Low Graduation and High Dropouts in a Rural Appalachian School District through Systemic Change

Change in Appalachian schools will occur when the importance of place is considered. “One portion of the literature on rural education explicitly or implicitly espouses the view that a strong connection to community and sense of place are values to be preserved in rural areas” (Khatti et al., 1997). It is important to consider the uniqueness of the region and the pride felt by the inhabitants from the natural and human resources. Educators, as well as society, underestimate the power of school and its role in how it shapes our world and our future (Johnson, 2007). Schools seem to mirror the face of society and what happens in our world. It is a place where changes that take place

have the ability to improve our society. It is also a place where negative practices can get reinforced and result in problems being passed on from generation to generation.

Practitioners may not always be comfortable with change. Michael Fullan (2006) writes about the difficulty of change in the book *Turnaround Leadership*. The author recounts the story of Dr. Edward Miller, the dean of the medical school at John Hopkins University who tells of a study about medical patients with heart disease. He found that 90 percent of patients who go through serious by-pass surgery never change their lifestyle as a result of the experience. They seem to fail to change. If change is difficult for patients who may lose their life as a result of complacency, imagine the difficulty leaders have in implementing change. The low graduation rate and high dropout rate remain a problem for many rural Appalachian schools in Kentucky. How do leaders facilitate change and bring about true systemic change that improves academic achievement and improves school climate? The first step is to assess the readiness of organizations for change and identify what does not need to change. Understanding the culture is important. “Leaders assess with diligence the readiness to change their organizations and themselves” (Reeves, 2009).

Fullan’s (2006) *Elements of Successful Change* is a model for leaders. He outlines ten items that all leaders in school districts that seek change must do. He states that the primary goal should be to close the achievement gap among subgroups in the schools. “Research reveals that on average students enrolled in high poverty schools tend to perform at significantly lower levels than do students enrolled in low-poverty schools” (Khattri et al., 1997). Achievement gaps that exist between minority and majority groups

or poverty and non-poverty groups and special education students should be priority because “it has so many social consequences. It goes to the core of how a society functions” (Fullan, 2006, p. 45). He also stresses the importance to district leaders of focusing on reading, math and well being. Fullan (2006) refers to this as “the three legs of the improvement stool.” Schools should also tap into individual dignity and respect. The author states that teachers who do not feel valued create a climate where they unconsciously become less caring of the students. Leaders should also ensure that the best people are working on the problem(s). Students with the greatest needs should be with the teachers who possess the greatest skills. The strongest teachers need to be utilized in places where the challenges are greater. Fullan (2006) further states that we should recognize that all successful strategies are socially based and action oriented. It is important to foster relationships because as Fullan (2006) states, when relationships develop trust increases. He also encourages organizations to assume that lack of capacity is the initial problem and then work on it continuously. Creating experiences will motivate the majority of the people so that change is sustainable. It is also important to stay the course through continuity of good direction and leverage leadership. Organizations should constantly work on developing strong leaders. Good leaders will help the organization keep focused on the goal even when it is hard to reach. Fullan (2006) also believes that organizations must build internal accountability linked to external accountability. He stresses the importance of the use of data in organizations. Data can be used to hold organizations accountable to others but it can also be used to empower the organization. It can be used as leverage for positive change. It is also

important to establish conditions for evolution of positive pressure. The establishment of a system that truly looks at the weaknesses that exist and provides assistance to schools that need assistance will cause the schools to feel pressure to change. This takes all excuses for failure off the table and really opens up the door for strong leadership and high expectations for students. Finally, it is important that schools build public confidence. The community will want to invest in schools that they feel are striving to improve. The more the school can show improvement the more support will come. The community consists of the school board, parents, and neighborhood groups.

Schools in rural Appalachia must look for the greater good of the community and the livelihood of the next generation when considering change and the positive effects it can have. Organizations that look beyond short term goals to the greater good will experience sustainable change (Hargreaves & Fink, 2006).

Solutions that Focus on the Four Elements

Creating an effective school climate is very important to student success. Schools should create a school climate that is welcoming, respectful and comfortable. Schools should have frequent communication with parents through phone calls, progress reports and parent/teacher conferences. Teachers should teach with passion and understanding of all students and respect family diversity. Student-faculty contact outside of class is positively associated with improved academic performance, increased critical thinking skills, greater satisfaction with the educational experience and stronger desire to further education beyond high school (Astin, 1993; Pascarella & Terenzini, 2005).

High quality mentoring programs, co-curricular experiences, leadership opportunities, volunteerism, service learning, peer mentoring, limited employment, and church involvement can all have a significant positive impact on student success (Cuseoet al., 2010).

Place-based education is one way of engaging students in their own communities through local history, local culture and local government (Smith, 2002). The heart of place based learning is using the community as a partner with the school to teach a concept where the community is the context for learning. Through hands on activities, students are engaged in the learning process. Schools and students take part in building the local community. Student learning is tied to the community needs. A significant body of research has linked social capital with educational outcomes (Singh & Dika, 2003). Place based education increases the social capital of the area while strengthening ties to the community. One of the strengths of this educational approach is that it can be adapted to any community because it adjusts to the uniqueness of the place.

Modifying School Practices, Programs and Policies

Implementation of policies regarding grade retention is one way of providing alternatives to this common practice. Several options allow students additional time and instructional support so that grade retention is not necessary. Students can be given the option to attend summer school, an option that is not only given to students who are in danger of repeating a grade but also to those who want to graduate early. Extended school services are also given as an option in states like Kentucky. Schools may extend the school day by offering after school or before school tutoring for students who are at-

risk of failure. Some school policies allow students to be given a second chance by being placed in a higher grade for a few weeks to see if they can manage the rigor of the academic content. In some instances, monetary incentives for good grades and attendance are used.

Summary

Low student graduation rates and high student dropout rates are a problem in the nation as a whole and in rural areas; however the rates are particularly alarming in rural Appalachia. Although research does not point to place as a predictor in whether a student drops out of school, educators must examine place and the community where their students live to consider the importance of social and cultural dynamics and how they affect the school and student success. Many students must repeat a grade each year. Students at the highest risk of being retained are male, African American or Hispanic, and those from poverty stricken families. In general, rural students have lower career aspirations, and fewer graduates prepare for and enroll in postsecondary education. Students who come from these rural areas and obtain a professional degree do not return to their community, which could improve the economic development of the area. The uniqueness of Central Appalachia can only be comprehended by gaining an understanding of the history of the Appalachian region. Appalachia has a richness of historical beauty that is unique to the people and place. The focus of this study will highlight one rural Appalachian school district in Eastern Kentucky. There is a wealth of history to be found in the people and place of this community. Unfortunately, this rural Appalachian county has one of the highest poverty rates in the United States and one of

the highest high school dropout rates in the state of Kentucky. Rural Appalachian leaders must facilitate change and create true systemic change that improves academic achievement and improves school climate, resulting in increased graduation rates and reduced dropout rates in the region. Place based education is one way to engage students in their own communities through local history, local culture and local government. Schools should review current practices and policies that may result in additional student dropouts.

Chapter III

Methodology

Introduction

The general intent of this study was to explore factors influencing graduation rates and dropout rates in a rural Central Appalachian school district. Specifically the study employed a sequential mixed methods design to examine and discuss the issues facing the educational institution and make recommendations that can be employed to increase the opportunity for student success within the district. This chapter will present the investigation techniques, the participants, data collection procedures, analysis, ethical considerations, and trustworthiness. The research addressed four questions.

Research Questions

1. What is the relationship between graduation and ethnicity, gender, family status, mobility, and grade retention for students in rural Appalachia?
2. What is the relationship between dropping out and ethnicity, gender, family status, mobility and grade retention for students in rural Appalachia?
3. What perceptions do school leaders have about student success in rural Appalachia?
4. What perception do teachers have about student success in rural Appalachia?

Research Design

The purpose of the study was to uncover what was creating the low graduation and high dropout rates in a rural Appalachian county. To address that purpose, a mixed-methods sequential-explanatory research approach was employed. The mixed method approach was particularly suited for this study because it addresses the weaknesses found in quantitative or qualitative studies (Creswell, 2007).

The nature of the research questions required a mixed methods design. For example, research questions 1 and 2 queried the relationship among variables, therefore requiring a quantitative approach while questions 3 and 4 sought the perspective of individuals which required an in-depth qualitative approach. Thus, the research questions in this study could not be answered solely by qualitative or quantitative approaches.

There were two phases to the design. During the first phase, a quantitative approach allowed the researcher to examine relationships among variables (gender, ethnicity, family status, mobility, and grade retention). These variables were examined to determine the relationship to graduation status among a cohort of K-12 rural Appalachian students.

The district cumulative records provided data for the cohort of students that entered kindergarten in the fall of 1995 and graduated in spring 2008. Although traditional quantitative strategies used in this research (Cohen, Manion & Morrison, 2007; Jackson, 2009; Muijs, 2004) provided an understanding and insight into the study, they lacked the ability to provide a holistic view and was without the richness that can be obtained through qualitative inquiry. Therefore, during phase II, teachers and principals

provided responses to interview questions. Figure 2 provides a visual image of the design.

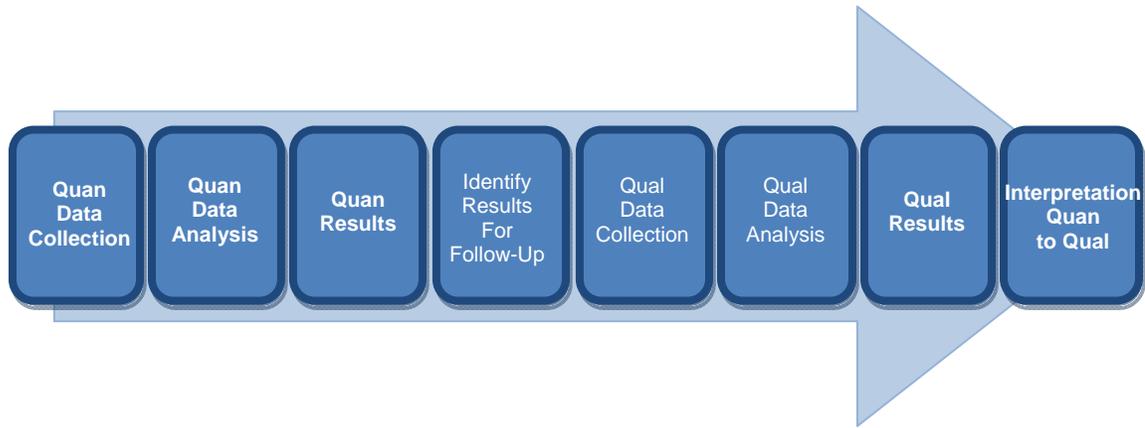


Figure 2: Mixed Method Explanatory Sequential Design: Follow-Up Explanations Model. (Quan emphasized)

Source: Creswell, 2007, p. 73

Phase I

Participants for Phase I

Children from nine elementary schools in a rural Appalachian school district provided the sample for this study. This purposive sample for phase I of the study consists of a cohort of kindergarten students in this rural Appalachian school district. The cohort of kindergarten students were from the 1995/96 school years. These students were expected to graduate in 2008 (n=391 total students).

The student population and school district were selected for two reasons. First, although students officially drop out of school in the middle and high school years, students begin to struggle long before they officially exit the system (Hickman, Bartholomew, Mathwig, & Heinrich, 2008). The majority of the literature concerning

dropouts focuses on the secondary grades, but does this problem begin before those troublesome years? “This narrow focus assumes an educational vacuum in a student’s life from kindergarten through eighth grade” (Hickman et al., 2008, p. 3). They argue that it is important to look at the years preceding the high school years to truly be able to combat the dropout dilemma. Further, these experts argue that academic failure begins in the early years for many students who fail to graduate. A poor attendance pattern that began during kindergarten and continues throughout elementary school may cause a student to be an underachiever, leading to low self-esteem and poor grades. As a result of habits that are not conducive to academic success, a student may have been retained because of the lack of mastery of the curriculum. This study began by examining student data in cumulative student records. The researcher recorded student enrollment, initial entry in the school district and educational outcomes (e.g., graduate, dropout, homeschooled, moved, passed away, still enrolled). The researcher also recorded each student’s ethnicity, gender, family status, and number of grade retentions. Secondly, the school district used for the study was selected because it has one of the highest dropout rates in the state and remains among the poorest counties in the nation with a high percent of the community who have not obtained a high school diploma.

Instrumentation

The data came from the student records from the rural Appalachian school district and were entered into PASW (SPSS) 18 for data analysis. This study required the examination of the relationship between criterion (ethnicity, gender, family status, mobility and grade retention) and predictor variables (graduation and dropout).

Procedure

During the first phase of the research the records of a cohort of students were examined. An IRB proposal was approved by the university, and the local school board approved the project. A meeting with the superintendent, district instructional supervisor, principals, and other district and community officials was held to discuss the project and the relationship to the district's goals and objectives.

The researcher requested the names of the kindergarten students enrolled in the 1995 school year. Student cumulative records were obtained from the school district enrollment central office. Once permissions were granted, the researcher contacted school officials to schedule a convenient time to review student enrollment records.

Before the initial visit to review the records, a coding system was created for each variable to be documented (e.g., male = 1 and female = 0). The four elements of student success (family, community, school, and students) were the focus in developing the design. The school element of the theoretical framework was the first element to be incorporated in the research. To ensure confidentiality of the students in the study, student names were removed and a code was assigned that consisted of 3 numbers plus a 3 digit code representing the student and the elementary school in which children were enrolled (i.e., 333001 represented the last 3 digits of the student ID and elementary school number 001).

Information regarding gender, ethnicity, father/mother/other status, number of grade retentions, and educational outcomes (e.g., graduate, dropout, homeschooled, moved, passed away, still enrolled etc.) were recorded in PASW (SPSS) 18 on site

during each visit. The individual student (e.g., student, race, gender, mobility), school factors (e.g., number of grade retentions and withdrawal status), and the family element (e.g., living with father only, mother only or other family members) were investigated as a part of this research (see Appendix A for coding sheet). The dependent variables for this study were graduation and dropout although other withdrawal statuses were documented as well. It was not only important to document graduate and dropout status but also all withdrawal reasons for the students while they were in the district in order to address the research questions.

Once the data was collected, several attempts were made by the researcher to find missing enrollment information. Many enrollment cards were found with the assistance of the school district pupil personnel office, but some student information could not be located. Reasons for missing student enrollment information include being filed incorrectly or not having been returned to the correct location by district personnel over time.

Analysis

After all the data was entered, using the latest version of PASW (SPSS 18), the researcher ran various descriptive statistics, crosstabs and statistical tests on the kindergarten cohort. Through cross tabs the researcher examined each elementary school by ethnicity, gender, family status, grade retention, and withdrawal status.

The entire district's kindergarten student population was examined to understand the big picture of their withdrawal status. Students may have graduated, dropped out, exited to home school, moved out of the school district, or passed away. What variables

are correlated and statistically significant with graduating in rural Appalachia? What variables are correlated and statistically significant with students dropping out? The graduate and dropout variables were originally a part of the withdrawal code but it was necessary to recode variables. A dummy variable was then created for the graduate code and a separate dummy variable was created for the dropout code (i.e., graduate = 1 and dropout = 0). The Chi Square test for independence was run on the data. This statistical test is most often used to examine differences with categorical variables. It is a “nonparametric inferential test used when frequency data has been collected to determine how well an observed frequency distribution fits an expected distribution” (Jackson, 2009, p. 417). The Chi Square statistical test makes inferences about the existence of a relationship between two categorical variables. The statistic used in the Chi Square test helps the researcher determine whether or not an appropriate relationship exists between the variables (e.g., ethnicity, gender, family status, mobility and grade retention) and the dependent factors of graduation and dropout. The null hypothesis states that there will be no significant difference in factors influencing graduation and dropout rates in this rural Appalachian school district. The researcher supports the alternative hypothesis which states that there will be a significant difference in the factors influencing graduation and dropout rates in this rural Appalachian school district. The alpha level for this study is set at the .05 level of significance.

The results of the quantitative findings provided a wealth of information yet a deeper investigation was required to better understand the quantitative findings. Looking through lenses of the four elements of student success concerning gender, race, family

status, mobility, grade retention and withdrawal status provided valuable insight, but the findings also lead to additional questions that could only be answered through qualitative inquiry. For example, why did some elementary schools have more graduates or dropouts than others? Why did grade retention almost always result in a student dropping out? Based on the quantitative findings of this study and by building on achievement theory looking through the four elements' lens of student success, open-ended questions were created to better inform the researcher while attempting to highlight the perceptions of teachers, school leaders, dropouts and graduates.

Phase II

Participants and Design Overview

Guided by research questions three and four, participants were a stratified sample of principals and teachers (based on schools in the district) in this rural Appalachian school district. Although a random process was used to select individuals from this stratified population, it is noted that this sample was not intended to be a representative sample. The intent was to provide some substantive voice to the quantitative data. The sample of teachers and administrators are those who were active in the lives of the student cohorts addressed in phase I. The sample of students interviewed was drawn from the kindergarten cohort in phase I and included only student dropouts and graduates. Students who withdrew for other reasons were excluded from the sample.

The sample for teachers and leaders consisted of 25 educators and was a random sample chosen from a total of twenty two K-12 administrators and 290 teachers in the

district. Random sampling was utilized in order to obtain a representative sample of both administrators and teachers. In addition, 150 students who were graduates and dropouts from the kindergarten cohort group were provided by the district to the researcher; all 150 names were used in the study. The names of all the teachers and leaders in the school district were given to the researcher by a school official working at the board office.

To reduce the opportunity for bias in the study, it was important to include leaders and teachers representing all the schools in the district. The names of the leaders were placed in one hat and the names of the certified teachers were placed in 12 separate hats. Each hat represented a school currently in the district including two schools that were closed but were present before consolidation. The hats were labeled and names from the master list were verified to ensure that only the teachers assigned to those schools were in the appropriate hat. The random sample of teachers consisted of only certified teachers; the leader sample consisted of instructional coaches, counselors, district supervisors, and principals in the school district. One teacher was randomly selected from each hat until an initial group of teachers were formed. Once the 12 teachers (representing one teacher from each school in the district) were selected, the remaining teachers from all grade levels were placed in one hat and an additional 3 names were drawn for a total of 15 teachers. A random sample of leaders was selected from the hat marked as leaders which included principals, instructional coaches and district supervisors. There were 10 names selected from the hat. This totaled 25 leaders and teachers for the study. Leaders and teachers were contacted by phone or emailed to schedule a convenient time for interviews.

Students were selected from the kindergarten cohort. The district provided the names and phone numbers of 150 students found in the quantitative phase. The interviewer contacted all cohort students whose names, original elementary school and phone numbers were obtained from the board of education. Students in the sample only represented those who had graduated or dropped out of school.

These questions were designed for the researcher to gain insight into the perceptions of leaders and teachers in the district in the area of student success (See Appendix A for administrator and teacher questionnaire). Questions regarding the element of the school were addressed by asking leaders about grade retention practices, school climate, dropout prevention strategies, and school equity. The element of the family was addressed in the questionnaire by asking leaders and teachers their perception of the role of family, how families view the concept of dropping out, and home schooling. The element of community was also addressed with questions that centered on the community environment and how the community views the issue of dropouts. Finally, the element of the individual student was addressed with questions that focused on what drives students to succeed, why students are retained, and how students view the concept of dropping out of school (see Appendix B for the leader/teacher questionnaire).

In order to better understand the graduation and dropout information discovered in phase I, it was important to speak with student graduates and dropouts. Staying true to the four elements model and achievement theory, questions were created based on each element that gave the student graduates voice as well. Questions involving the element of the school were addressed through questions about the school's role in student

success and what educators in the district could do to ensure student success. The element of the family was addressed by asking about the family's role in student success. The element of the community was addressed by asking the students about obstacles they faced within their community, the role the community played in their success and how the concept of dropping out is viewed by the community. The element of the individual student was addressed by asking the student about their driving force(s) for graduating and what they personally did to ensure their success (See Appendix C for student graduate questionnaire).

The questionnaire developed for students who had dropped out were similar to those developed for student graduates, however the questions were sensitive to the fact that these students were not successful in school, thus increasing the likelihood that they would choose to participate in the study. Five questions that focused on the elements were developed. The school element gathered insight into grade retention and what educators could do to prevent students from dropping out. The community and individual student element addressed why students drop out in the county and the community perception of students dropping out. The family element was addressed by asking how the family viewed the issue of student dropouts (See Appendix D for student dropout questionnaire).

Instrumentation and Data Collection Methods

An interview format was selected for all groups due to the depth of information that can be gathered from the perspective of the participant's experiences. A general interview guide approach was used. The semi-structured interview allows for exploratory

probing for further questioning when necessary. The interviewer used the Lofland and Lofland (1994) approach when formulating the questions. This approach suggests interviewers ask themselves “Just what about this thing is puzzling me?” Questions were designed in an open-ended format.

Interviews were conducted face-to-face in the naturalist setting for teachers and administrators during teachers’ planning time or after school hours so as not to interrupt instruction. Interviews with the leaders took place in their school offices or in an empty classroom. Interviews were recorded with permission granted by the interviewee prior to the beginning of the interview. The same questions were asked during each session and in the same order for each person interviewed. If teachers were unavailable for the interview, the researcher remained flexible and sensitive to their schedule by selecting a date that was more convenient. Each interviewee had an opportunity to offer additional comments at the end of the interview that was not covered in the interview questions.

The board supplied 150 student names to the researcher from the 1997/98 kindergarten cohort group that represented all the elementary schools in the study. Graduates’ and dropouts’ names and phone numbers were separated into two lists resulting in 105 graduates and 45 dropouts. Graduates were called for an interview. If a student’s number was disconnected, if there was no one home, or if they were not interested in participating in the interview, it was documented. Calls to those who were not home were repeated on different days. Names were continually drawn from a container until all students were phoned. The student dropout list was processed in the same manner. Seventeen graduates agreed to participate in the interview and one dropout

of the 45 agreed to participate. For each interview, students were given the same questions and in the same order. The telephone interviews lasted approximately 15 minutes. The researcher asked for permission to record the interview before the questioning began.

Data Analysis and Synthesis

All interviews (teacher, leaders, student graduates, and student dropouts) were transcribed and coded. Interviewees were assigned a code consisting of a combination of letters and numbers (so that the researcher could track responses (e.g., administrator interviewee = ADM1, certified teacher interviewee = CT1, student graduate = SG1, and student dropout = SD1). Each question was examined line by line with responses grouped by themes for each question asked. An accurate perception of rural Appalachian educators and students is highly important to the validity of the study.

Ethical Considerations

The researcher removed the names of the elementary schools in this study to protect the identity of the schools. The names of the educators and students who participated in this study remained completely confidential. The names of the interviewees were removed and a code was assigned to their interview. Further ensuring confidentiality, every interview began with the researcher requesting permission to record the interview and assuring the confidentiality for those who participated.

Trustworthiness

The trustworthiness of qualitative research is based on four elements. Lincoln and Guba (1985) state qualitative research has confirmability, credibility, transferability, and dependability. The researcher will ensure confirmability by describing the research process as transparent as possible by clearly describing how data were collected and analyzed and providing the copy of the coding system used in this research (Given, 2008).

This study ensured credibility by employing the use of triangulation in which several research methods were used to study the phenomenon to compensate for the weaknesses found in using only one (Denzin & Lincoln, 2005). The researcher sought to use multiple avenues to check results and create an in-depth understanding of the phenomena. Using triangulation, the researcher was able to present student records, various perspectives, and historical context thereby validating data through cross-verification. As a result, the data presented as a part of this research is believable, credible, and trustworthy.

To ensure transferability the researcher also presented the historical context of the researched area. The researcher will enhance transferability by thoroughly describing the research context and the assumptions that are central to the research. The obligation for demonstrating transferability in a naturalistic study belongs to the reader (Lincoln & Guba, 1985). Dependability was ensured by an inquiry audit.

The researcher is a native of the county and former student 24 years removed. Although she has never been an educator in the district, she realizes that bias was a

possibility. To combat that bias, the researcher acknowledged the possibility of bias and sought to continuously remain neutral by utilizing the committee chair as an advisor during the phase of the process when interview results were summarized (Hammersely & Atkinson, 1995). The chair reviewed the process and provided feedback concerning the process and data findings and interpretations (McNiff, Lomax & Whitehead, 2003).

Summary

This chapter presented the investigation techniques, the participants, data collection techniques, ethical considerations, and trustworthiness. The research study utilized a mixed methods sequential explanatory research approach to the problem. The purposive sample for phase I of this study consists of a cohort of kindergarten students in this rural Appalachian school district. This study was replicated from a previous study conducted in an Appalachian school district (Johnson, Naugle, & Thompson, 2009). The researcher examined the perceptions of educators on student success by interviewing a random sample of principals and teachers in this rural Appalachian school district. In addition, both student graduates and dropouts selected from the kindergarten cohort were interviewed. What follows is the presentation of results for this study.

Chapter IV

Presentation and Analysis of Data

The purpose of this chapter is to present the outcome of multiple analyses of the data. Following a review of research questions the results of the investigation are organized into five sections: (a) county and school descriptive data, (b) the frequency and descriptive data for phase I of the study, (c) analysis related to research questions 1 and 2, (d) the frequency and descriptive data for phase II of the study, and (e) analysis related to research questions 3 and 4.

The County and School

According to the 2009 U.S. Census estimates, Lytle County Kentucky's population is 23,629. The racial makeup of the county was 93.5 percent White, 5.2 percent African American, 1.5 percent Hispanic or Latino of any race, 0.2 percent Native American, 0.1 percent Asian American, 0.2 percent from other races, and 0.9 from two or more races.

The estimated average family size in 2006-2008 was 4.05. The median family income was \$26,205 compared to the United States median income of \$63,211. The population of citizens 25 years and over with a high school diploma or higher was 56.2 percent compared to the United States at 84.5 percent. There are 7.7 percent of residents in the county that have a bachelor's degree or higher compared to 27.4 percent in the United States. Only 36.4 percent of the population is reported to be in the labor force

compared to the United States at 65.2 percent. There were 36.3 percent of individuals living below poverty compared to the United States poverty level of 13.2 percent.

According to the National Center for Educational Statistics (2008), during the 2008-2009 school year there were 3,680 students in the district which consists of 11 schools. The majority of the students qualify for the free and reduced lunch program and 20 percent of all students in the district are eligible for special education services. All elementary schools receive Title I funding. The local high school has a population of nearly 1,100 students. There are 290 teachers employed by the district.

Nine elementary schools are in the population sample; their most current demographic information follows in Table 1.

Table 1
Elementary School Demographic Data

School	# of Students	Ethnicity of Students					% of Students who Qualify for Free or Reduced Lunch
		White	AA	Amer Ind.	Asian	Hisp.	
Elementary 1	163	100%					74%
Elementary 2	335	100%					73%
Elementary 3	280	100%					78%
Elementary 4	318	100%					52%
Elementary 5*	258	98%	1.1%	0.3%	0.3%	0.3%	77%
Elementary 6**	No data available	No data available					No data available

Table 1 (continued)

Elementary 7	462	94%	4%	0.2%	1.8%	54%
Elementary 8	148	99.9%	.006%			80%
Elementary 9	345	98%	1.9%	.05%	.05%	

Source: National Center for Education Statistics. (2008). CCD public school data 2008-2009 school year.

* Elementary 5 was closed as a result of consolidation in 2008. The data provided is from 2008.

** Elementary 6 was closed as a result of consolidation in 2005.

In addition to the elementary schools, the county has one middle school which spans grades 7 and 8. There are 568 students enrolled who are 99.2 percent white and 0.1 percent African American. Only 1 Hispanic student is enrolled in the school. The county has one high school. There are 1,035 students enrolled who are 98 percent white, 1 percent African American, 0.2 percent American Indian, and one Asian student.

In the fall of 2010, three schools in the district made Adequate Yearly Progress (AYP) as defined by No Child Left Behind; however the school district did not make AYP. The average ACT score for the district in 2008 was 18.9 as compared to 20.6 for the state of Kentucky and 21.1 nationally (Kentucky Council on Postsecondary Education, 2008).

In the first phase of the study, a selected set of variables that may influence graduation or dropout status among a cohort of K-12 rural Appalachian students was examined. The district cumulative records provided data for the cohort of students that entered kindergarten in the fall of 1995 and graduated in spring 2008. The independent

variables used in this study were number of times a student was retained, family status, gender, the number of times a student moved, and ethnicity; while graduation and dropout rates were the dependent variables.

Phase I: Frequency and Demographic Data

The cohort of kindergarten students from the 1995/96 school years were expected to graduate in 2008 (n=391). Students were predominantly European American (98%); the only minority group identified was African American students (.08%). There were more males (54%) than females (46%). Nine elementary schools in the district represented the student population. Following are the results of selected demographic data ran on the elementary schools including ethnicity, gender, family status, mobility, and withdrawal reasons.

Table 2 represents the gender of the student population from each elementary school in the district for the 2007-08 academic year.

Table 2
Cohort Gender by Elementary School

School	Gender		Total
	Males	Females	
Elementary 1	50%	50%	100%
Elementary 2	54.5%	45.5%	100%
Elementary 3	50%	50%	100%
Elementary 4	58.1%	41.9%	100%
Elementary 5	58.8%	41.2%	100%

Table 2 (continued)

Elementary 6	60.6%	39.4%	100%
Elementary 7	53.5%	46.5%	100%
Elementary 8	46.7%	53.3%	100%
Elementary 9	53.3%	46.7%	100%

Figure 3 represents the reasons for withdrawal by students.

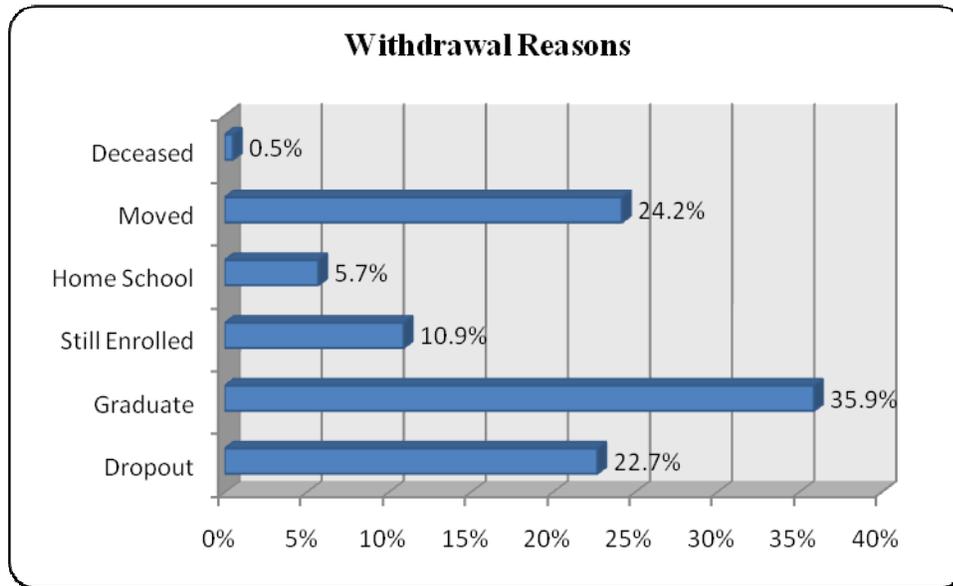


Figure 3. Withdrawal Reasons

Table 3 represents the number of times a student was retained and/or moved.

Table 3

Number of Grade Retentions and Mobility Rates

Number of Times a Student was Retained and/or Moved	% of Students Retained	% of Students who Moved
0	63.4%	64.9%
1	27.5%	21.3%
2	8.3%	7%
3	.8%	2.6%
4	n/a	1%
5	n/a	.8%
6	n/a	.8%
7	n/a	.5%
8	n/a	1%

Research Questions

The analyses addressing each of the specific questions in this study are presented. They are divided according to the specific primary quantitative strategy deployed and variables included.

Question 1: What is the relationship between graduation and ethnicity, gender, family status, mobility, and grade retention for students in rural Appalachia?

The first question seeks to identify the variables that are associated with graduation in this district. It is important to remind the reader that the dataset presented in this study represents the entire population of kindergarten students from the cohort for the 2007-2008 school year. Statistical significance is immaterial to the study, yet significant levels must be reported and can be treated as indicators that an observed relationship might be of practical significance (Bickel, 2007).

A Chi Square analysis determines if graduation is independent of ethnicity, gender, family status, mobility and grade retention for students in rural Appalachia. After analyzing all the variables in the study, grade retention and mobility yielded significant results. A Chi Square test for independence indicated a significant association between graduation and grade retention $X^2(2, n=225) = 84.75, p=.00$. The test indicated that graduation or dropout and grade retention are not independent of one another. Results indicated that grade retention was statistically significant. Of students graduating, 83 percent (n=122) had never been retained. A total of 23.3 percent of students (n=14) who were retained at least once graduated. This statistic decreases for students who were retained twice. Only 11.1 percent of students (n=2) who were retained at least twice graduated.

A Chi Square test for independence also indicated a significant association between graduation and mobility $X^2(2, n=225)=10.566, p=.005$. Of students graduating, 68.9 percent (n=102) had never moved. The test indicated that graduation and mobility are not independent of one another. A total of 47.9 percent of students (n=23) who had moved once and 44.8 percent (n=13) of students who moved twice graduated (see Table 8).

Descriptive statistics indicate that students from elementary school 7 had the highest graduation rate at 46.5 percent while elementary school 5 had the lowest graduation rate at 21.2 percent. Tables 4 and 5 represent a more detailed look of Chi-Square results showing the relationship of graduation and dropout to grade retention and mobility.

Table 4
Graduation/Dropout and Relationship to Grade Retention

			Retained			
			0	1	2	Total
Graduation or Dropout	Drop	Count	25	46	16	87
		Expected Count	56.8	23.2	7.0	87.0
		% within Grad or Drop	28.7%	52.9%	18.4%	100.0%
	Drop	% within Retained	17.0%	76.7%	88.9%	38.7%
		% of Total	11.1%	20.4%	7.1%	38.7%
		Std. Residual	-4.2	4.7	3.4	
	Grad	Count	122	14	2	138
		Expected Count	90.2	36.8	11.0	138.0
		% within Grad or Drop	88.4%	10.1%	1.4%	100.0%
% within Retained		83.0%	23.3%	11.1%	61.3%	
% of Total		54.2%	6.2%	.9%	61.3%	
Std. Residual		3.4	-3.8	-2.7		
Total	Count	147	60	18	225	
	Expected Count	147.0	60.0	18.0	225.0	
	% within Grad or Drop	65.3%	26.7%	8.0%	100.0%	
	% within Retained	100.0%	100.0%	100.0%	100.0%	
	% of Total	65.3%	26.7%	8.0%	100.0%	

Table 5
 Graduation/Dropout and Relationship to Mobility

			Mobility			
			0	1	2	Total
Graduation or Dropout	Drop	Count	46	25	16	87
		Expected Count	57.2	18.6	11.2	87.0
		% within Grad or Drop	52.9%	28.7%	18.4%	100.0%
		% within Mobility	31.1%	52.1%	55.2%	38.7%
		% of Total	20.4%	11.1%	7.1%	38.7%
		Std. Residual	-1.5	1.5	1.4	
		Grad	Drop	Count	102	23
Expected Count	90.8			29.4	17.8	138.0
% within Grad or Drop	73.9%			16.7%	9.4%	100.0%
% within Mobility	68.9%			47.9%	44.8%	61.3%
% of Total	45.3%			10.2%	5.8%	61.3%
Std. Residual	1.2			-1.2	-1.1	
Total				Count	148	48
		Expected Count	148.0	48.0	29.0	225.0
		% within Grad or Drop	65.8%	21.3%	12.9%	100.0%
		% within Mobility	100.0%	100.0%	100.0%	100.0%
		% of Total	65.8%	21.3%	12.9%	100.0%

Question 2: What is the relationship between dropping out and ethnicity, gender, family status, mobility and grade retention for students in rural Appalachia?

The second question seeks to find the variables that are associated with students dropping out in the district. Descriptive statistics indicate that there were more male dropouts (59.8%) than female dropouts (40.2%) in the kindergarten cohort (see Figure 4).

Students from elementary school 9 had the highest dropout rate at 40 percent while elementary school 7 had the lowest dropout rate at 5.6 percent (see Table 6).

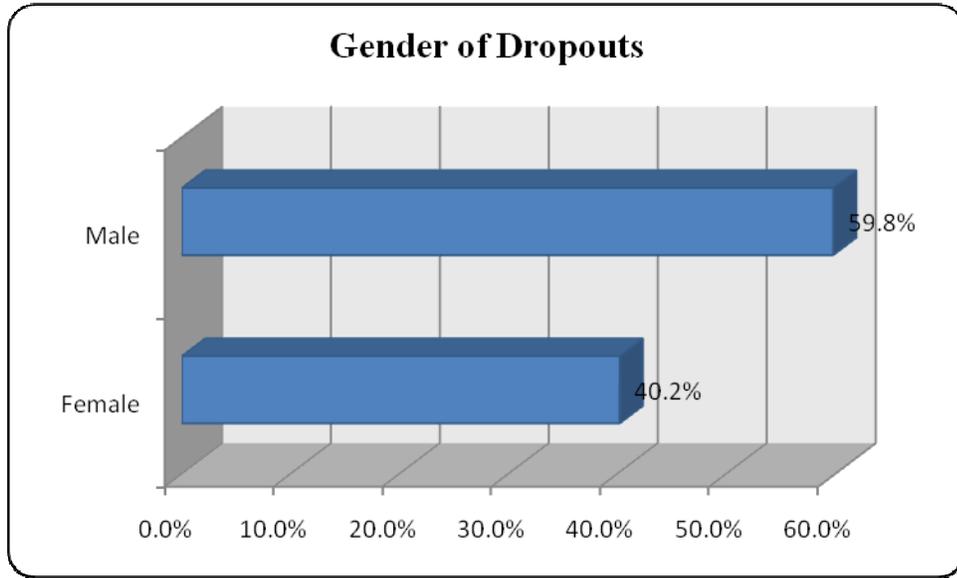


Figure 4. Gender of Dropouts

Table 6

Reasons for Withdrawal

School	Graduate	Dropout	Home School	Moved
Elementary 1	33.3%	30.6%	8.3%	13.9%
Elementary 2	34.5%	23.6%	3.6%	25.5%
Elementary 3	42%	30%	2%	22%
Elementary 4	32.3%	9.7%	9.7%	32.3%
Elementary 5	21.2%	21.2%	9.1%	24.2%
Elementary 6	45.5%	21.2%	3%	21.2%

Table 6 (continued)

Elementary 7	46.5%	5.6%	3%	21.2%
Elementary 8	30%	30%	6.7%	30%
Elementary 9	26.7%	40%	13.3%	13.3%

A Chi Square analysis determines if dropping out is independent of ethnicity, gender, family status, mobility and grade retention for students in rural Appalachia. After analyzing all variables in the study, grade retention and mobility yielded significant results. A Chi Square test for independence indicated a significant association between dropping out and grade retention, $X^2(2, n=225) = 10.566, p=.005$. The test indicated that dropping out and grade retention is not independent of one another. Of students dropping out only 17.0 percent or (n=25) dropouts have never been retained (See Table 4). The statistic rises significantly when a student is retained once, 76.7 percent or (n=46) students who are retained once drop out of school. That number increases for students who are retained twice with 88.9 percent dropping out of school (see Table 4).

A Chi Square test for independence indicated a significant association between dropping out and mobility. A total of 31.1 percent of student dropouts had never moved. Mobility increases the percentage of students who drop out. Mobile students who moved once dropped out at a rate of 52.1 percent while students moving twice or more dropped out at a rate of 55.2 percent.

Although quantitative strategies used in this research provided increased understanding and insight into the study, it lacked the ability to holistically understand

the phenomena and the richness that can only be obtained through qualitative inquiry. Therefore, during phase II of this report, qualitative data was collected and analyzed. Based on the previously noted quantitative findings used to interpret and explain quantitative results, the researcher analyzed and gave an overall synopsis of the findings and interpretation.

Phase II: Frequency and Descriptive Data

The participants interviewed for this study were from a stratified sample of principals, district leaders, instructional coaches, counselors, and teachers in this rural Appalachian school district. Leaders were defined as principals, district leaders, instructional coaches and counselors (n= 10). The leaders consisted of three males and seven females; nine were white and 1 was African American. The work experience of the participants ranged from 12 - 40 years. Teachers in the district were also interviewed for this study (n= 15). There were four males and eleven females in the group; thirteen were white and two were African American. There were nine elementary teachers, three middle school teachers, and three high school teachers including one in the alternative school setting. The work experience ranged from 8 - 34 years. The researcher attempted to contact 150 student graduates and dropouts from the district by phone. Seventeen graduates and one dropout agreed to participate in the study.

Table 7 includes selected demographic data from the leader participants who were interviewed as part of the study:

Table 7

Select Demographic Characteristics of Leader Participants

Interviewee	Ethnicity	Gender	Grade Level	Years of Experience
ADM 1	African American	Female	Elementary	25
ADM 2	Caucasian	Female	Elementary	20
ADM 3	Caucasian	Female	Middle	31
ADM 4	Caucasian	Female	Elementary	12
ADM 5	Caucasian	Male	Elementary	23
ADM 6	Caucasian	Male	Elementary	40
ADM 7	Caucasian	Male	Elementary	13
ADM 8	Caucasian	Female	Alternative	29
ADM 9	Caucasian	Female	Elementary	12
ADM 10	Caucasian	Female	Elementary	16

Table 8 includes selected demographic data from the teacher participants who were interviewed as part of the study.

Table 8

Select Demographic Characteristics of Teacher Participants

Interviewee	Ethnicity	Gender	Grade Level	Years of Experience
CT 1	Caucasian	Female	Elementary	16
CT 2	Caucasian	Female	Elementary	8
CT 3	Caucasian	Female	Elementary	32
CT 4	Caucasian	Female	Elementary	29

Table 8 (continued)

CT 5	African American	Male	Alternative	24
CT 6	Caucasian	Female	Elementary	34
CT 7	Caucasian	Female	Elementary	11
CT 8	Caucasian	Male	Elementary	17
CT 9	Caucasian	Female	Middle	25
CT 10	Caucasian	Female	Middle	19
CT 11	Caucasian	Male	Elementary	13
CT 12	Caucasian	Male	High	31
CT 13	African American	Female	High	31
CT 14	Caucasian	Female	Elementary	14
CT 15	Caucasian	Female	Elementary	26

Table 9 includes selected demographic data from the student graduate participants who were interviewed as part of the study.

Table 9

Select Demographic Characteristics of Student Graduate Participants

Interviewee	Ethnicity	Gender	Original Elementary School
SG 1	Caucasian	Female	6
SG 2	Caucasian	Male	8
SG 3	Caucasian	Male	8
SG 4	Caucasian	Female	7
SG 5	African American	Male	7
SG 6	African American	Female	7
SG 7	Caucasian	Female	6
SG 8	Caucasian	Female	3
SG 9	Caucasian	Female	2

Table 9 (continued)

SG 10	Caucasian	Female	4
SG 11	Caucasian	Female	7
SG 12	Caucasian	Female	7
SG 13	Caucasian	Female	1
SG 14	Caucasian	Female	2
SG 15	Caucasian	Female	4
SG 16	Caucasian	Female	4
SG 17	Caucasian	Female	4

Table 10 includes selected demographic data from the student dropout participant who was interviewed as part of the study.

Table 10

Select Demographic Characteristics of Student Dropout Participant

Interviewee	Ethnicity	Gender	Elementary School
SD 1	Caucasian	Male	5

Question 3: What perceptions do school leaders have about student success in rural Appalachia?

The third question examines the perceptions of school leaders on student success in rural Appalachia. When leaders were asked about their educational background and experience, 100 percent taught and led in the county their entire career. Only one leader worked in another county at any point in their career and it was at the beginning of their

teaching career for less than six months. Forty percent of the leaders mentioned educational degrees from the same college located in a neighboring county. Fifty percent described their schools and community as supportive and having good teachers and 40 percent described the school they work in as small and close-knit. In addition, 20 percent mentioned that they attended the school they now lead. When asked about what or whom motivated students to succeed, 60 percent responded that teachers/educators were number one while 30 percent said the parents were number one and 10 percent said a better life was key. Excerpts from leader interviews are included below:

“I think our teachers and administrative staff just instill that in them.”

When asked about the environment the students in this district face day to day, 80 percent said poverty was a problem.

“A lot of children are deprived of a lot of things. They want to get to school because they see better things at school than they do at home. And, we naturally try to lean toward those to see that they have what they need. I make sure they have paper and pencil. We don’t even sale paper and pencil. We make sure that we give them the meals and all the love we can give them.”

Forty percent of leaders mentioned students in this district were being raised by grandparents and others. In addition, 30 percent noted that parents were incarcerated and 20 percent mentioned drugs being a problem.

“I would say a lot of them ...it is a poor environment. A lot of them raised by grandparents that we have. That would mean that the parents are not even ...several of the parents are in jail. I would say a lot of them on drugs at home. “

Leaders were asked what effect, if any, grade retention has on high school graduation. Overwhelmingly, 90 percent stated that they supported retention. They commented that it makes students stronger for the next grade level. Only 10 percent stated that their school did not retain students. Forty percent of the leaders stated retaining in early elementary grades was the best time to do and 40 percent stated that immaturity was the main reason to retain students. When asked why students are retained in this and other rural areas, 60 percent of the leaders stated that student academic performance was low, 40 percent stated that sports was the reason, and 20 percent said that immaturity was the reason. The majority of the leaders (80%) reported that they had retained a student in their career whereas only 20 percent reported that they had never retained a student. The following excerpts are from individual responses:

“Retention is only to the benefit of the child. Most of the time, in fact, I don’t know of any time that a child has been retained that it didn’t help.

“I think it had to do with sports to be honest with you. I have coached and that is the things I have seen.

“A lot of the time it is the students that don’t need to be retained anyway. Because they do it for sports.”

The element of the family was addressed in the next question. When asked about the role of family in the lives of students, 100 percent stated that the role of the family was very important. One person use the word “vital.” The following excerpts are from individual responses relating to the role of family:

“I think it is vital. I think that really what gets our kids through is that parent support. Of course you know teachers are like family to our kids.”

“The role of the family is very important. It is the foundation of the learning experience.”

During the quantitative phase of the research there were an unusually high number of students from the kindergarten cohort that enrolled in home school (see Figure 2). The next question related to home schooling in the district. Thirty percent stated that the student was a truant and therefore facing issues with the court system which was why the family chose the home school route. Only 20 percent of the leaders stated that the parents were disappointed with the school system.

“Because they want to get out of the truancy stuff, they don’t want to go to court and some parents are too lazy to get their kids up. Kids have to get up on their own. The kids won’t get up and they get tired of fussing with kids and say I am just going to sign you out. I have a list on my desk today of four kids that were signed out. This little girl, a senior, all she needed to graduate was four credits. The first 54 days of school she was absent 23 days. The mother said I am so tired of fighting with her to get out of bed. “

When asked about community perceptions of dropping out of school, leaders insisted that the cycle of poverty is strong. Half of those surveyed (50%) stated that many in the community do not see the value of getting an education when jobs are not available or when they see parents receiving government assistance.

“We have a high dropout rate in this community. I say some families it is just a cycle. My mom draws welfare and she doesn’t work. My dad and my grandparents are on welfare and when I get older that is what I am going to do. Some of them don’t see

dropping out as a problem but those who are educated really push their children to succeed. “

Because the research involved students from elementary schools, the next question focused on the equality of the schools. When asked about equality among the elementary schools, 20 percent said that all elementary schools in the district were created equally while 80 percent disagreed with that statement. When asked about distinctive differences among elementary schools, 60 percent of the leaders surveyed stated that the major reason differences exist has nothing to do with funding from the central level; however, differences in the socioeconomic levels of students' families and differing family dynamics (e.g., students who live in public housing, students from poor rural areas of county) have a greater impact. The differences in socioeconomic levels create differing opportunities for students.

“Some schools don't have children who are as fortunate as other schools. I think one of my colleagues mentioned that my school has no families in it what are doctors, lawyers, teachers, and this elementary school has always had quite a few people that are prominent because of because of our proximity to town. And people throughout the county drop off their children here on the way to work because it is closer to their job. That being the case we have a little better advantage, but on the other hand I have found that over the years we are losing our middle class.”

When asked what factor(s) contributed to school dropouts, 30 percent of leaders stated that students have a lack of ability to do the work at the present level. Many stated that students get frustrated and eventually quit. Thirty percent of leaders stated that

students lack support at home. Leaders in the district stated that students don't see a valuable connection between education and employment when they have never seen family members work. There is a cycle of generation after generation of family members receiving government assistance.

“I think it is a lack of support at home. We have students who don't have very high goals for themselves, second or third generation of public assistance and that is their goal to be on public assistance. They fail to see the value of an education. We can try to explain that to them but it's hard to override what they are hearing at home. I have had teachers whose students have made fun of them for working. They say my parents get a check and stay at home all day and here you are working. Who is the smart one? So some times in cases like that they fail to see the value of an education and drop out.”

When asked about dropout strategies in place in the district, 20 percent of the leaders recalled the district alternative school. Others mentioned working with students individually, extended school services, graduation coaches and the 6th grade transition program that currently exists. Leaders were also asked “What do we do well in this county?” Forty percent of the leaders stated that the school district had good teachers who genuinely cared for the kids. They felt that the teachers really want the children to succeed and 20 percent said that the educational system in the district was good. At the conclusion of the interview, 40 percent of the leaders had nothing to add. One leader mentioned the university extension building center provided encouragement for students to pursue graduation. Leaders also stated that teachers need to go into the profession for the right reasons.

Question 4: What perception do teachers have about student success in rural Appalachia?

The same questions addressed to leaders were posed to certified teachers in the district. The third research question examined the perceptions of rural Appalachian teachers on student success in rural Appalachia. When teachers were asked about their educational background and experience, 93 percent of all teachers interviewed received certifications from the same three local colleges and universities. When asked about the school, all teachers described their school as a small, rural, close-knit school. They described the community as small, rural, and close-knit with a great deal of poverty. When asked what or whom motivated students to succeed in school, over half (53%) stated that they were the primary reason students experienced success, followed by 26 percent that stated a better way of life was the reason while 13 percent said family.

Interview excerpts are included below:

“We give them all the encouragement that we can in school and everybody lets them know that they can succeed in school. We want them to live up to our expectations.”

“In this school they know what the expectations are and we do have high expectations. We tell them that they can do better. We expect the best from you. I think when you tell a kid that enough they believe that and really try.”

When asked about the environment the students in the district face daily, teachers spoke of students living in poverty. They reported that many come from homes in which they are being raised by single parents, grandparents and/or other family members.

Teachers also spoke of schools being the safest place for the students and often times the place where they receive the best and only meals of the day. Individual excerpts from interviews are presented below:

“Truthfully? We have some that this is the best place during the day - the safest place.”

“ We live in the Appalachian mountains and our students come from homes that sometimes don’t have food. They are kept up at night playing games and things like that. They don’t have the best home life.”

One teacher spoke of his experiences as a bus driver in the district.

“I firmly believe that every person who works in public education should have to ride a school bus on every route in the school to see where these kids live.”

Teachers were asked what effect, if any, grade retention has on high school graduation. Elementary teachers commented that they did not know how it affected the high school graduation rate in the county. Several stated that if retention was done in the early grades it was beneficial and one teacher stated the practice was vital for children.

“I don’t know exactly how ours correlates with the high school.”

When asked why students are retained in this and other rural areas, 73 percent said that students are retained because they are not working at the appropriate grade level. Students do not have the basic skills in order to move on to the next grade. When asked whether they had ever retained a student, 66 percent of teachers stated they had. Teachers cited poor performance and high rates of absenteeism as the reasons for retaining. One stated sports as a reason and 2 stated that they have never retained because they taught in the area of special education.

“I know that when I held them back in kindergarten and first grade it was because of immaturity. They couldn’t do the work. Each grade builds on the other and if they don’t have a foundation they get further and further behind.”

When asked about the role of family in the lives of students, teachers state that the role of family is very important but that the parents were not involved. Teachers spoke of many students living in a non-traditional home with single parents or being reared by someone other than the biological parent. They also stated that the children were raising themselves and take on the adult role.

“We have the haves and the have nots. The haves the parents become very involved and the parents want their kids to get a good education. And we have parents with the drug situation that and they are not capable of making educational choices for their children.”

When asked why families in the community choose to home school their child, they felt that it was because the family was unhappy with the schools. Some teachers stated that there were often conflicts that needed to be resolved. Teachers, as did the leaders, responded that students go to home school to avoid going to court because of excessive absences. One person commented that it was the legal way for a student to quit.

“Lots of times they choose to do that because they are getting in trouble with truancy and rather than go to court they sign their kid out.”

When asked how students and families viewed the concept of dropping out of school, teachers responded that it depends on the family but in many cases teachers said that families do not care. Parents and others in the home do not have a high school

diploma and receive government assistance. They also spoke about the generational cycle of family members receiving government assistance and in turn not teaching the student the value of an education. Twenty-seven percent of teachers stated that the parent allows the child to make the decision to drop out of school. When asked whether all elementary schools were created equal in the county, 66 percent of teachers said yes while 34 percent said no. Teachers were then asked about distinctive differences between schools. They responded that although the central office provides the same services to all schools, different schools have differing challenges and 40 percent agree that location matters. Many stated that families in rural settings are poorer than students living in urban settings, therefore students living in urban settings have more opportunities than those in rural areas.

“Where they are located. Like for example elementary 8 and elementary 1 are so far from town. Elementary 7 is in the middle of it. Lots of our kids have never been to the neighboring county. The opportunity is not available.”

The size of schools was another difference noted by teachers. When asked what contributed to the student dropout epidemic, 46 percent stated that students lack parental support at home and 20 percent stated that because of generational poverty, students fail to see the value of education. Twenty percent also stated that students lack motivation and were lazy. When teachers were asked about dropout prevention strategies currently in place, 20 percent mentioned graduation coaches and 16 percent mentioned the local alternative school in the district and reading programs. Elementary teachers were not aware of the programs offered; however other programs mentioned were Gear Up and

Upward Bound. Lastly, simply making a connection with students by talking to them was noted. When asked “What do we do well in the county?,” the majority of the teachers said that the district meets the students’ non-academic needs, such as providing a safe, welcoming and warm place with love and food when needed. Secondly, the district has good teachers and a good athletic program. Teachers were offered the opportunity to make final comments, but just as in the interviews with leaders, the majority of teachers had no additional comments. A teacher stated that the district puts the needs of the child first. Yet another teacher stated that mountain teachers need to be more involved in state issues that affect the region. Lastly, a teacher stated that the residents of eastern Kentucky needed to come together to make the changes needed, and one teacher stated that ideas should be explored to find ways to keep the best and brightest students in the county.

Student Graduates

Student graduates (n=17) were asked questions during telephone interviews. When students were asked about the driving force behind successfully completing high school, the motivating factors in rank order were: parents, college aspirations, seeking a better life and self-motivation. When asked about the unique challenges faced in pursuit of graduation, peer pressure, drugs, and a lack of motivation were given in rank order. *“I wanted to maintain good grades. A lot of people in the county don’t graduate because their parents haven’t. They just want to follow in the footsteps of their family members so they don’t see that it is important to graduate.”*

When students were asked about roadblocks they encountered on the journey to high school graduation, the majority of the students reported that they did not face any challenges. When asked about the reasons students in the community drop out of school, 47 percent reported that it was because of lack of parental support at home. They talked about the cycle of parents not graduating and their children not graduating. It was accepted in the community as the norm.

“That is what they see in their home life. Like if their parents didn’t go to school and didn’t make anything out of themselves they are wondering why should they? Why should they do it?”

“Because it is accepted. A lot of people in my family did not graduate high school, my mom and dad did but a lot of my aunts and uncles didn’t, it was not really pushed for them.”

When asked about the role of the community in their success, students responded almost equally in stating the community supported or did not support them in their success. Forty-one percent of students who responded stated they did not get any support from the community. One person mentioned living around drug dealers and many others who just did not care. Fifty-three percent of the students responded that the community was very supportive of them stating they were proud of them and wanted them to do their best. The students mentioned church and surrounding themselves with successful people as factors in community support.

“If I would have went with what I lived, I probably would not have been going to school because I lived around a bunch of drug dealers. But in my household my parents always

went to church and stuff so I guess I see how they were and I knew I did not want to be like my surroundings at my house, I wanted to be more like my church group.”

When asked what role the family played in their success, overwhelmingly, 94 percent of student graduates interviewed stated that their family was very supportive. They mentioned that they were pushed in school and expected to graduate. A few students noted they were the first in the family to graduate from high school. Several mentioned that mom and dad wanted their lives to be better than theirs had been. Only one student reported that family had no influence.

“My parents have always pushed education in my life.”

When asked about the role of the school in their success, overwhelmingly, 94 percent of student graduates surveyed reported that the teachers were very supportive. They used the word “help” often (i.e., teachers were helpful, they were there to help out, they helped me get a scholarship to attend college, etc.). Students also mentioned that teachers cared and wanted them to succeed. A few mentioned that teachers helped when asked or if you put forth the effort they encouraged you to keep going. Only one student said that the school played no role in their success. One student responded that the teachers helped out when they felt discriminated against.

“The teachers were really good. You could tell that they wanted you to go on and have a good life and a good career.”

When asked about their own involvement in their success, 47 percent of students responded that they worked hard, were faithful to their school work and took their studies seriously. Two students mentioned attendance was important and the simple act of

attending school daily made a difference. Two students talked about setting goals for themselves. One student mentioned that they did not know they had the option to drop out. Graduates were then asked how students and families viewed the concept of dropping out in this community. The majority of the students felt that it depends on the family. Staying in school is important in some families and not in others. They felt that many families do not care. Dropping out is accepted and many do not value education. It has become a part of the culture. Graduates were then asked what educators in the school district could do to ensure that more students graduate from high school. The majority of the students responded that teachers needed to connect with students more by taking a personal interest in getting to know them. Students felt that teachers needed to be more understanding, encouraging and motivating. They also need to keep students interested and offer challenging curricula in the classroom. Students said that teachers needed to put forth more of an effort. One student mentioned that teachers needed to focus more on the students who were not advanced noting the student who is not advanced needs the most support.

“The teachers need to challenge their students and give them something to look forward to accomplishing.”

Finally, students were given the opportunity to provide additional comments. Most had no additional comments. Only one person said that people get pregnant and start taking drugs, then return to the county.

Although 150 calls were attempted for students who dropped out of school, only one caller agreed to participate in dropout interview for the study. When the student was

asked about reasons students choose to drop out of school, he stated that he didn't like school and didn't like teachers. When asked about reasons students were retained, he stated that he was retained because of a lack of concentration and his refusal to do the work. When asked how students and families viewed the concept of dropping out of school in the county, he stated that it was common. He then added that most people don't care. When asked what educators could do in the county to prevent students from dropping out of school, he responded that students are bored and that school needs to be more exciting. He said he lost focus because it was so boring. He added that friends made it a better place.

Summary

This chapter analyzed the data after Chi Square tests were performed on the data. Findings indicate that grade retention and mobility have a negative impact on successful completion of high school. Data also indicates that females are more likely to graduate than males.

Interviews with teachers and leaders indicated that they believed they had a significant impact on instilling the importance of education in students; however they also felt that the obstacles of poverty and low educational attainment of parents were detrimental to their efforts of encouraging students to be successful. Although research has proven that grade retention has a negative impact on student achievement (Astone & McLanahan, 1994; Haveman et al., 1991; Rumberger & Lawson, 1998; Smith, 1995), teachers and leaders in Lytle County support the practice and view it as a way to prepare students for the next level both mentally and academically.

Student graduates who participated in interviews stated overwhelmingly (94%) that parental support was the primary factor in their successfully obtaining a high school diploma. Students also felt that teachers were very supportive in the classroom and were concerned about academic achievement. These students also felt that their self-efficacy motivated them to succeed and better their lives; several mentioned aspirations to attend college.

Chapter 5 will discuss the findings of the research study and offer specific recommendations for the district to improve the graduation rate.

Chapter V

Summary of Findings, Discussions and Recommendations

The preceding chapter presented and analyzed data. This chapter is divided into four sections. Section one will provide an overview of the study and major findings. Section two will present possible interpretations of the findings of this study and its relationship to selective literature on the topic. Section three identifies several implications of the research and offers possible recommendations for policy and practice. Section four will make recommendations for future research.

Summary of the Study

This chapter begins with a summary of the purpose and structure of the study. The themes represented in the chapter are elementary schools, ethnicity, poverty, mobility, parent and student involvement, home schooling, and grade retention. In addition, the major quantitative and qualitative findings of the study and conclusions from the findings as they relate to the four elements model of student success (Thompson, 2008) are presented. The general intent of this study was to explore factors influencing the educational outcomes for students who choose to graduate or dropout in a rural central Appalachian school district. Specifically the study employed a sequential mixed methods design (Creswell, 2007) to examine and discuss the issues facing the educational institution and to make recommendations for strategies that can be utilized to increase the opportunity for student success within the district.

The four elements model of student success (Thompson, 2008) was used as a theoretical framework for this research. The model suggests that student success results

from the involvement of family, community, school and individual student effort. This research suggests that when these institutions operate together and not in isolation of one another, the likelihood of a student graduating will increase. On the other hand, the lack of or a deficiency in one of these elements increases the likelihood the student will drop out of school. In addition, Bandura's (1993) achievement theory provides three levels that demonstrate how self-efficacy contributes to the academic development of students. Bandura (1993) states that students' beliefs in their ability to learn and master the material determines their goals, levels of motivation, and the level of academic success. Bandura (1993) further states that teachers' beliefs in their ability to motivate students and encourage learning affect the learning environment in the classroom and the degree of academic success their students will achieve. Lastly, Bandura (1993) states that school administrators' beliefs in their "collective instructional efficacy" has a significant effect on the level of academic success their school will achieve.

There were two phases in this research design. In the first phase of the study, factors were examined to determine what degree, if any, a set of variables had on influencing schooling outcomes among a kindergarten cohort of students in this district. Historical data (e.g., gender, race, family status, mobility, grade retention, graduation or dropout status) was obtained from cumulative records of the students and analyzed using traditional quantitative strategies (Cohen et al., 2007; Jackson, 2009; Muijs, 2004). The study was built on an original investigation of a 1994/95 kindergarten cohort of 376 students projected to graduate in 2007.

The qualitative portion of the research took place in phase II. During this second phase of the research, questions were created based on the four element model of student success and the results of the quantitative findings. During this phase, principals, district leaders, instructional coaches, counselors, and teachers in this rural Appalachian school district were interviewed. This was followed by telephone interviews of student graduates and dropouts from the kindergarten cohort.

Questions one and two could primarily be answered quantitatively using data obtained from the cumulative records of the kindergarten cohort students using Chi Square test for independence. However, qualitative responses gathered through interviews were used to substantively enhance the quantitative results. Questions three and four could primarily be answered through qualitative results. However, quantitative findings were used to validate themes from the qualitative findings.

Major Findings

Research Question 1

What is the relationship between graduation and ethnicity, gender, family status, mobility and grade retention for students in rural Appalachia?

Examining the Chi Square results, gender was not found to be statistically significant in the cohort; however females outpaced males in successfully graduating.

Chi Square results found grade retention and graduation to be statistically significant. A total of 83 percent (n=122) of the students who graduated that had never been retained. Only 23.3 percent (n=14) of students who had been retained at least once graduated, thus students who were retained were less likely to graduate.

Mobility was found to be statistically significant. As students moved, the likelihood of graduation decreased. A total of 68.9 percent (n=102) of students who graduated never moved. In contrast, 47.9 percent of student graduates (n=23) moved once and 44.8 percent (n=13) moved twice.

In the qualitative research, educators were interviewed and themes from leaders regarding grade retention indicated that an overwhelming majority of them had retained students and the majority supported the practice of grade retention. They stated that it made students stronger for the next grade level. Another theme that emerged was that nearly half of the leaders retained students in early elementary grades because they felt it was the most effective time in the student's educational career with immaturity being the main reason they supported grade retention. Leaders also stated that when they retained students the major reason was because the student's academic performance was low. An additional theme that surfaced was leaders stating that students were also retained because of sports. The teacher interviews revealed similar results in which they stated similar comments. Elementary teachers commented that they did not know how it affected the high school graduation rate in the county. Several teachers stated that if retention was done in the early grades it was beneficial and one teacher stated it was vital for children. Further, teachers said that students in Lytle County are retained because they are not working at the appropriate grade level and that students being retained do not have the basic skills in order to move on to the next grade. Similar to the leaders questioned, the majority of teachers stated they had retained students due to poor academic performance and high rates of student absenteeism. The following are quotes

from interviews with elementary and secondary educators in Lyttle County regarding grade retention.

Elementary Educator 1

“Uh...we have had success with holding children back. We try to do this early like in first grade. Catch them early. When we catch them early like in the first grade we do see that they do a lot better the second time around. Uh...as far as holding them back in the 4th and 5th grade we tend not to do that because when they get that age if we haven’t identify the trouble by now it is too late.”

Elementary Educator 2

“Academics, maturity, or to participate in athletic activities longer. I think it is a variety of reasons. And sometimes it is the parents. It is part of the culture here in this area. They don’t want kids to leave home soon. If you are talking about a young child you are talking about a difference in going away to college at 18 versus 17, 18, going to be 19 that makes a big difference.”

Student graduates provided additional insight into the first research question on graduating in Lyttle County. Themes revealed that the majority of students responded that they worked hard while in school, were faithful to completing their school work and were serious about their course work. They also spoke of the importance of being in school every day and the importance of goal setting and not allowing themselves to consider dropping out as an option.

Indeed, students also provided themes to assist in answering this question. Here are a few excerpts from the student sample:

Student Excerpt 1

“I studied really hard and motivated myself. I told myself each and every day that the time was getting closer that I could graduate.”

Student Excerpt 2

“There wasn’t really an option. Nothing lead me, I just knew that it was just something I had to do. I didn’t know there was any other option but to graduate from high school.”

Student Excerpt 3

“I was faithful to my school work and I turned it in on time and I never had problems with grades because of that.”

Student Excerpt 4

“I just went to school every day. (laughs) My younger sister is struggling in school because she is absent a lot from school. Schools are already out a lot because of snow. You have to focus on the work and not on the social aspect of it.”

Student Excerpt 5

“I got up and came every day, did what I had to do with what I had to do it with.”

Reflecting on Bandura’s (1993) achievement theory, the level of self-efficacy demonstrated by teachers and students show that when students believe in their own ability to learn and succeed, they can and will successfully complete high school. However, if teachers believe that their ability to motivate students and promote learning is limited, they may resort to practices such as grade retention which has a negative impact on student success.

Research Question 2

What is the relationship between dropping out and ethnicity, gender, family status, mobility and grade retention for students in rural Appalachia?

A Chi-Square analysis determined that gender was not found to be statistically significant, although descriptive statistics indicates that more males dropped out than females.

. Chi-Square results yielded that of students dropping out, only 17.0 percent of dropouts have never been retained whereas 76.7 percent of students who are retained once drop out of school. In regard to mobility, students who had never moved had a 31.1percent likelihood of dropping out of school. That percentage increased with few exceptions as the number of moves increased. For example students moving once increased to 52 percent, twice increased the likelihood to 55 percent.

In qualitative research educators were interviewed, and a theme that emerged from leaders is that the majority of them did not feel elementary schools in Lytle County were equitable. Although services and funding were equitable, differences in socioeconomic level of students' families and the communities surrounding the schools coupled with differing community expectations of the schools and students creates differing opportunities for students leading to inequities. Interviews from teachers also mirrored leader responses. The majority of the teachers also agreed that elementary schools were not equitable for the same reasons. The central office provides equitable services but different schools have different challenges based on the community in which they are located. Themes that surfaced from the research confirmed location matters.

Families in rural settings are poorer than students living in urban areas and students living in urban settings have more opportunities than those in the rural areas. The following are quotes from elementary educators that explain the lack of equity that exists in the elementary schools.

Elementary Educator 1

“We are fortunate enough at this elementary school to have a lot of parents who work than you have at elementary__. Elementary___ has a whole different school dynamic than what we have here. They have every housing project in town. So you automatically have a whole different mindset there. Elementary ____, which is a different school, has a lot of kids that come from the drug communities. They have a different mindset. Students who live near elementary_____ and elementary _____ which are also different elementary schools, live in very poor conditions. You can try to give them all equal but they are just not. And it makes it really hard. The kids from elementary ___often have to deal with parents who had been arrested the night before. The kids don’t know what they have to deal with when they get home. They didn’t know if mom or dad was going to be there or not. So when you look at that there is no way it can be equal.”

Elementary Educator 2

“I think it is next to impossible for the schools to be equal because they have different opportunities. The different cultures of the communities of the schools and in some sections of the county people are poorer than other sections and that makes it difficult.”

Elementary Educator 3

“There is a whole different culture on the other side of this county even though all these kids are in Lytle County. Each school has its own individual culture. The resource centers have been the greatest thing. In some schools they may need to put clothes on 2 percent of the school population and in other schools 40 percent. Now listen, you can’t tell me that there is not a completely different culture in the same county.”

Elementary Educator 4

“If you mean are all of them equal by services from the school board, I would say yes. But our kids in this elementary school are socially deprived. I have students in kindergarten and first grade that have never been to McDonald’s. When you talk about things in class they are lost because they have never seen or experienced it.”

Student interview responses revealed additional insight as to why students drop out of school. The majority of graduates report that a lack of parental support at home was the reason. They often spoke of the importance of parents leading by example. If the parents did not graduate, the children did not graduate. Thus, a culture was created where a student dropping out of school was the norm. Students also provided themes to assist in answering this question; below are a few from the student sample.

Student Graduate Excerpt 1

“Kids dropout because it is accepted. A lot of people in my family did not graduate high school.”

Student Graduate Excerpt 2

“They are not motivated and I don’t think they have people in their home pushing them.”

Student Graduate Excerpt 3

“I think kids are used to seeing it...it is all they know to do and they don’t really care.”

Student Graduate Excerpt 4

“That is what they see in their home life, if parents didn’t go to school and make anything of themselves they are wondering why should they.”

Student Dropout Excerpt 1

“It is pretty common here; students and families don’t care one way or another.”

School leaders feel as if their hands are somewhat tied given the resources available to rural schools. As a result, their level of self-efficacy may be limited and result in an environment where students are not in an ideal educational setting to experience academic success. Bandura (1993) states that leaders’ beliefs in their “collective instructional efficacy” has an impact on student success. If school leaders feel as if a lack of resources affect the impact that rural schools can have on student success, they may be portraying a message subconsciously that completing high school is not possible for all students.

The connection between family involvement and academic success is a clear one. Students who are not supported in the home tend to have a low level of self-efficacy and therefore do not believe they can achieve the attainment of a high school diploma. The student dropouts interviewed reinforced the messages they were given by family and internalized those messages resulting in a lower level of self-efficacy.

The primary answers for research questions three and four were derived from themes from the qualitative findings of 25 educators (15 teachers and 10 school leaders).

The 15 certified teachers were classroom based and school leaders comprised of principals, district administrators, instructional coaches, and counselors within the Lytle County Kentucky Public School District.

Research Question 3

What perceptions do school leaders have about student success in rural Appalachia?

This intent of this research question was to garner the perceptions and thoughts from school district personnel that had direct face-to-face impact with this cohort of students. It was the hope of this researcher to identify themes that could shed light on the institutional impact on the student's academic success. One of the interview questions asked, "What drives students to succeed in school?" yielded the most conclusive results. An overwhelming theme that emerged and one that the majority of responses indicated was that Lytle County educators themselves were the driving force behind students in the district succeeding in school. The following are quotes from two leaders that explain their perception of student drive.

Leader 1

"Teachers are the driving force, because most of the students in this area have no one at home pushing them."

Leader 2

"I think it is the teachers themselves. I think we just push. I think everyone does here. Because in this day and time, you don't have a lot of parents that do."

However, when comparing these themes with those from 18 student interviews, it was found that leaders' responses did not correspond with the perceptions of the

educators. When student graduates were asked a similar question about their success, “What was their driving force behind them wanting to graduate?” the majority of them credited their parents and not educators. Following are seven student graduate quotes to further explain the themes.

Student Excerpt 1

“My driving force was my parents mostly my dad.”

Student Excerpt 2

“My dad went to cosmetology school and I saw his success and I wanted to be successful.”

Student Excerpt 3

“My mom and dad were a big piece in my success, my dad mainly.”

Student Excerpt 4

“My mommy and daddy and the leather belt if need be (laughing).”

Student Excerpt 5

“It was my mom actually.”

Student Excerpt 6

“My parents have always pushed education in my life.”

Student Excerpt 7

“My family played the biggest role. Like I said earlier, my parents pushed my education and if I didn’t get an education I don’t know what my other options were. I really didn’t. I was raised assuming I would get a good education.”

Although educators were not the driving force as revealed in interviews, student graduates did feel that they received support from educators. They also stated that educators helped those who were self-motivated but they expressed concern for fellow classmates who were not as motivated as they were in school.

Student Excerpt 1

“I had great teachers. You have good and bad teachers. I was blessed that I had the good teachers who actually cared about what my writing portfolio was going to be like and what my scores were. They cared and if you needed help they would not hesitate. I know that there are some kids who did not get that.”

Student Excerpt 2

“The teachers here need to focus more on the kids that are not in advanced classes because the advanced kids are trying to make something of their life the other kids are not.”

Student Excerpt 3

“I was in the advanced classes, they pushed us harder than they did anybody else because we were more likely to succeed.”

Student Excerpt 4

“Well, the teachers were there to help you if you asked them. You had to ask for that help to get it.”

Research Question 4

What perception do teachers have about student success in rural Appalachia?

Qualitative inquiry sought to understand the perception of teachers regarding student success in Lyttle County. Survey question 13 asked teachers what reasons they believed contributed to student dropout. Themes from the responses revealed that teachers felt that students who dropped out of school in Lyttle County lacked parental support at home and believed that generational poverty was a problem. In addition, students failed to see the value of an education due to poverty and their general lack of motivation. Following are six quotes from elementary and secondary teachers explaining the theme.

Educator 1

“I think that students who don’t have parents who are high school graduates is sometimes a major contribution to it.”

Educator 2

“They get so discouraged and just don’t have the support from their parents. I think that is the main thing”

Educator 3

“I do believe that teachers are fighting hard to help these kids to get an education. I also believe that we need more push from the families. I think that would be a major push or create a huge amount of success if we had families on board more pushing these kids get an education”.

Educator 4

“Unfortunately, I feel that most of our dropouts are encouraged to dropout. At the middle school they choose to home school when truancy becomes a problem and in the

high school if they are 16 they just sign them out. They just go ahead and let them drop out. Nobody really pushes them to go to school. They see no need for it. They are drawing a welfare check and they see no need to get a high school degree or learn a vocation because they are going to be taken care of.”

Educator 5

“Lack of parent support is number 1. Nothing else close to it.”

Educator 6

“ Student dropout? The number one reason would be socioeconomic status. Sometimes these kids have to get up and dress themselves. They put themselves on the bus and come to school. Do what they do on their own.”

Student responses also assisted in answering this question. Student graduates agreed with teachers as to why students in Lyttle County drop out of school. The majority of students and teachers reported that it was because of lack of parental support at home. In another similarity, both students and teachers spoke of the cycle of poverty as a reason students dropped out, adding that dropping out of school was accepted in this community. The following are quotes from student interviews.

Student Excerpt 1

“I think they are just use to seeing it. It is all that they know to do and they really don’t care.”

Student Excerpt 2

“Honestly, I think it is a lack of parenting. I see so many kids doing it. “

Student Excerpt 3

“Maybe because they don’t feel that they have a future ahead of them. Like a cycle.

Interpretations and Discussion

Elementary Schools and Ethnicity

This study highlighted the elementary schools in Lytle County. Results of the study revealed that elementary schools in the district varied in regards to graduation and dropout rates, grade retentions, family status and other variables. The results of this study reveal that the location of a school is important. The findings reflect the Thompson (2008) four element of student success model regarding the role of the school. The schools are often responsible for adding to family and community values and, for many students, replacing them with values that lead to student success. The role of school takes on a new role for the individual student. Christle et al. (2007, p. 327) also agree with the importance of school in student success. “Thus, for many students, the school they attend may be the strongest determining factor in their completing versus dropping out of school.”

The majority of the leaders felt that the location of the elementary schools and the availability of community services were not equal. The difference in socioeconomic levels of students in rural schools as opposed to those in urban schools was most often mentioned. Leader and teacher responses revealed that students in Lytle County who attend schools that are in more remote areas don’t have the same educational opportunities as those located closer to urban areas. The results from this study generally affirm findings from the literature regarding locale of schools (Anyon, 1980; Khattri et

al., 1997; Singh & Dika, 2003). Although educators view school district resources as being equitably distributed, students in schools closer to urban areas have more opportunities for exposure to parks, the public library, various field trips, and other opportunities that are more difficult for students to experience in schools located in the rural area of the county. For example, students who desire to participate in district wide activities which often take place in the city may have a 20 or 30 minute commute as compared to students who live near the city limits that have a two or three minute commute.

The lack of an official and strictly enforced attendance policy for schools helps to highlight social and socioeconomic differences that exist in the county. Schools are funded based on enrollment, thus when enrollment declines so does funding. The importance of school location is important to consider when comparing Lytle County to other school districts in Kentucky. Students in more populated urban areas of the state may have additional opportunities that are not as easily available to students in Lytle County. Although school funding has increased across the state as a result of the Kentucky Educational Reform Act and was designed to reduce inequities, based on the reported research findings for this Appalachian county disparities still exist. Leaders and teachers report that the poverty cycle creates limits of school choices. Michael Fullan (2006) stresses the importance of systemic change by first addressing the goal of closing the achievement gap within subgroups. By beginning to address academic gaps in this district with students in poverty, it should lead the way for change. The research for this county also points to the importance of family in student success. Educators often

mentioned the differences in family/community expectations surrounding the elementary schools.

The kindergarten cohort consisted of few minorities. Among the kindergarten cohort for the 1995/96 school years, elementary 7 had the highest number of graduates and the lowest number of dropouts from the district. Although the county is primarily in a rural remote area, elementary 7 is located in the heart of the county seat where government buildings, a hospital, police station, doctor's offices, grocery and retail stores, the library, banks and other commercial buildings are located. Fewer students in this school qualify for the free and reduced lunch program as compared to students in the other elementary schools in the district. As stated earlier, open enrollment policies in the district allows for school choice for parents in this community. Educators in the school district reported that parents who work in town find it convenient to drop their child off in elementary school 7 since it is located in town. U.S. Census records (2010) and educator and student interview responses highlight the high unemployment rate in the community and generational poverty that prevails in the county. Because of the open enrollment policy that exists, elementary school 7 is the school of choice for a larger percentage of working parents who are professionals and families from a higher socioeconomic class than in the more rural schools in the community.

The selected literature in chapter two of this report shows that minority students drops out at a higher rate than white students with Hispanic students having the highest percentage. "Only about 55 percent of Hispanic students and 51 percent of black students will graduate on time with a regular diploma compared to 79 percent Asian and 76

percent white students” (Editorial Projects in Education, 2009). It has also been reported in this study that if the minority graduation rates increase to the levels of white students in this nation by 2020, potential increases of personal income would add more than \$310 billion to the U.S. economy (Alliance for Excellent Education, 2006a). The findings in this study regarding race were not supported by the national findings on dropouts. Even students of color and students on free and reduced lunch living in the city and attending elementary school 7 are among the success stories of students who are graduating from high school. Although race was not a good predictor of students graduating or dropping out of school, it is interesting to note that minority students did not represent any of the dropout statistics reported in the research but can be found in the graduate population. This contradicts what is found in the literature on dropouts at the nation level which overwhelmingly focuses on the high percentages of students of color who become dropouts.

Poverty

Every school in this district has a high population of students who qualify for free and reduced lunch, thus all schools receive Title I funding. In 2008-09, the range of students qualifying for free or reduced lunch was from 52 percent to 80 percent for the district. Five schools have at least 73 percent of students who qualify (NCES, 2008). As demonstrated by the national literature highlighted in this report, children who live in poverty are at a bigger risk for dropping out of school. These findings are consistent with Deyoung, Huggman and Turner (1989, p.57) who stated “Students from lower socioeconomic backgrounds with lower levels of self-esteem and poorer grades are more

likely to drop than other students.” In addition, Khattri et al. (1997) noted “Research reveals that on average students enrolled in high poverty schools tend to perform at significantly lower levels than do students enrolled in low-poverty schools.” The high levels of poverty that exist in the community and thus in the schools could further explain the high dropout rate.

Educators in the community must address basic needs in the schools that are not being met in the home. In addition to meeting basic needs, educators must also teach core content and program of studies as required by all teachers in the state of Kentucky. Students whose basic needs are not being met are at a disadvantage compared to students whose basic needs are being met. One leader in this study mentioned that the school supplied pencils and paper for all students. Others stated that the Family Resource Service Center was available to assist students with basic hygiene needs. Other leaders spoke of students living in older mobile homes without a front door, no running water, and sleeping on the floor. Many students live in communities where the sale of illegal and prescription drugs is rampant and their parents may be incarcerated. Leaders stated that they felt that the cycle of poverty in the county was very strong. Johnson and Strange (2007) report on the socioeconomic challenges that Kentucky faces as the state was in the urgent range in the *Why Rural Matters 2007: The Realities of Rural Education Growth* report.

The cycle of poverty is powerful. Educator and student interviews affirmed that it is very difficult for a family who lives in poverty in this community to look to the future and see a different life. With the examples they are provided in their daily lives, it is easy

for students to think that their only option is a job with low wages or receiving government assistance. Many view the funds provided by government assistance as adequate to sustain them in this community. Given this scenario it is not difficult to see why many choose not to stay in school. “Some problems in rural areas seem specifically a function of demographic factors very different from those in central cities” (DeYoung et al., 1989, p. 57). The isolation that results as a consequence of living in rural areas and not being provided with opportunities to have different experiences limits the goals and dreams of students. Students in this community may be faced with the challenge of being the first in their family to graduate from high school or college and break the cycle of poverty. Leaders stated that many of the students in this community do not see examples of people in their family going to work each day. One leader recalled that many in the county worked in the coal mines and when those jobs were no longer available many were forced to accept government assistance. Many children in the community do not remember family working in the coal mines but instead have only the memories of family receiving government assistance each month. The connection between the value of receiving an education in order to provide for your family or get a job is not modeled for some in the community. This school leader insisted that if it is not modeled at home, it is hard to speak to its importance in the school.

“Years ago there was coal mines and people had hope. Now, there is a whole generation of kids who have not seen parents and grandparents work. There are no jobs here, but when there were jobs here people were working.”

Mobility

Mobility and dropping out was statistically significant in the cohort. As students moved it decreased the likelihood of graduation. The findings are consistent with previous studies (Astone & McClanahan, 1994; Haveman et al., 1991; Rumberger & Larson, 1998; Swanson & Schneider, 1999). Students who are highly mobile often have gaps in instruction and find it more difficult to experience success in school academically and socially. Students moving from school to school within the district experience varying levels of academic expectations from educators. In addition, students find it difficult to develop relationships with staff and peers, making success more difficult without a strong social network. This observation has been particularly prominent in rural schools which often have problems meeting the needs of the mobile student due to funding and staffing sizes (Schafft, 2005, 2006; Schafft & Killeen, 2007; Thorson & Maxwell, 2008).

The data from the study revealed a high rate of mobility in this rural Appalachian school district. Students moved up to eight times within the same county during their time enrolled in the district. Twenty-one percent of students moved at least once in the second cohort during the time they were enrolled in the district. The results indicated in chapter 4 shows that as students moved it decreased the likelihood of graduation. Negative results that occur from changing from one school to another include differing expectations, misalignment of curriculum mapping which results in a duplication of material or a deficiency in the knowledge base, and adjusting to new teachers, staff and friends.

Parent and Student Involvement

Students who lack support at home must often be self-motivated to stay in school, thus these students require an increase in the element of student involvement. The qualitative findings indicated that parents are key in student success. Student responses speak to the importance of family, and students credit the family in their success whether they resided with one or both parents. This finding supported the literature on the importance of family in student success (Anderson & Limoncelli, 1982; Howard & Anderson, 1978; Mahan & Johnson, 1983).

According to student records and interview responses of educators and students in this district, many students lack the parental involvement element which decreases the likelihood for student success. The stronger a person's level of self-efficacy is, the higher expectations are set and an increased focus is placed on accomplishing goals (Bandura, 1993). Students in this county are often in homes where parents are uneducated. Leaders reported that the parent often defers the authority to the child in educational matters. As a result, the child is in charge of their own educational destiny. The research findings did not find that parents were supportive of the decision their child made to drop out of school, however it did find many uneducated parents. Leaders report that parents don't feel comfortable advising their child on educational decisions and trust that they will make the best decision for their future. Research has shown that parents with low educational attainment and socioeconomic status tend to feel less comfortable in approaching school personnel to discuss their child's education, thus the findings of this study were consistent with previous studies (Coleman & Karraker, 1997; Lareau, 1989; Yamamoto, 1007; Zhan, 2005).

This research also adds valuable insight to students living in rural Appalachia. The perceptions of teachers and students are that these students in rural Appalachia are strong, independent, creative, problem solvers, and self-starters. They must be strong leaders within the family because they often live in homes and communities where few people graduate from high school or college. Appalachian students in this community must remain focused on the goal of graduating in spite of the lack of community and at times a lack of family support. They may find it challenging to dream of an alternative future without examples of others in the family achieving goals they may want to achieve. Students who lack parental support must be self-starters and responsible for being prepared for and getting to school each day. The research in this report shows an Appalachian student with much authority and autonomy. Understanding the uniqueness of rural Appalachian students provides additional insight so that educators in this district can attempt to increase student involvement in the educational process. Cuseo et al. (2010) state that students should be actively involved in their learning, utilize available resources, and engage in social interaction, collaboration and self- reflection.

Home Schooling

Many students in this kindergarten cohort eventually chose home school as an option with the number of students totaling above five percent. When asked about home school, leaders did not speak positively about the option for students in this district. Many viewed it as an unofficial way of students exiting the system before the legal age of 16. It was also viewed by leaders as an option for parents who were not actively involved in the student's academic success. It appeared to be an attractive option for parents of

students who struggled in school. Students were increasingly involved with the court system and parents struggled to keep students motivated to attend public school. The phrase “signing them out” was often used interchangeably to describe a student officially dropping out of school or going to home school. As stated earlier in the literature review, inadequate definitions of a graduate and misleading graduation rate calculation make it difficult to obtain accurate graduate and dropout figures for the nation. Currently, the average difference between the rate reported by states and independent resources is 11 percent (Alliance for Excellent Education, 2009). When students are classified as going to home school this withdrawal code does not count as a dropout for districts. It is difficult for districts to know if students are truly being home schooled or not and it is a favorable option for parents and district officials because officially dropping out penalizes parents and schools. It is interesting to note that home school guidelines in the state of Kentucky do not require the parents to be high school graduates.

Grade Retention

Grade retention and dropout were statistically significant. As the number of times a student was retained increased so did the likelihood of the student dropping out of school. As evidenced by the review of literature, studies on grade retention connect the practice to students eventually dropping out of school. The results of this study are consistent with the findings of Anderson, Jimerson and Whipple (2005) that concluded grade retention was one of the most powerful predictors of students dropping out of high school. One study conducted by Alexander, Entwistle, and Horsey

(1997) found that 64 percent of students who repeated a grade in elementary school and 63 percent of students who repeated a grade during middle school eventually dropped out of school. Opponents argue that this practice does not improve student achievement; rather it may damage a child's self-esteem and cause poor classroom conduct. Retention has been associated with a variety of negative effects. They include greater academic failure, higher dropout rates, and a lower self-concept. The third most stressful event in a child's life surpassed only by going blind and losing a parent is repeating a grade (Shepard & Smith, 1990). The majority of the leaders in this study supported retention. They felt it made students stronger for the next grade level which is consistent with studies that provide reasons as to why educators support the practice (Natale, 1991). Research on retention does not support a gain in skills from one grade level to the next. "Although initial academic improvements may occur during the year the student is retained, numerous studies show that achievement gains decline within two or three years" (Jimerson, Peltcher, & Kerr, 2005). Research also states that supporters of grade retention appear to place more importance on student learning deficits and less importance on instructional practices.

When asked why students are retained the majority of the leaders surveyed stated that the student's academic performance was low. The reasons leaders support grade retention in this county confirms research findings in this report. Research shows a culture that supports grade retention exists in this district. Principals and teachers spoke of retaining their biological children as a way to improve their academic standing among peers and providing additional time to mature in preparation for the next grade. Findings

are consistent with Anderson et al. (2005) and support the four element model. Students who are retained decrease their likelihood to graduate and increase their likelihood of dropping out. Research on systemic change stresses the importance of human resource capital in schools by placing the most effective teachers with students who have the greatest needs and increasing capacity within the schools (Fullan, 2006).

Researcher Observation

The study offered some unique findings which have been discussed. The researcher is a native of this county and set aside any potential bias and made one glaring discovery. Lytle County has a unique blend of wealth and poverty that coexist with one another. Examples of this can be found throughout the county. For example, by driving through this Appalachian county a common sight is wealthy homes in close proximity to poorly constructed and poorly maintained mobile homes. Indeed, this unique economic contrast impacts every area of the county and truly defines the theoretical framework of this research. When looking at the community, this contrasting economic blend can be found when discussing the differing community expectations depending on where you live in the county. When looking at the school, one can find differences regarding equity in the schools. Students who are in schools located near McDonald's and first grade students who have never been to a McDonald's live in the same county. Varying levels of family support exist; some families are very supportive and others are not supportive.. Economic dynamics may result in students having community, school, and family support therefore increasing the likelihood of graduating. In contrast, students living in poverty without those elements of support are more likely to become a dropout. The

child in poverty in this county finds it difficult to find examples of others in their family who have graduated from high school. This leads the researcher to Bandura's (1993) achievement theory that states that the stronger a person's level of self-efficacy is, the higher expectations are set and an increased focus is placed on accomplishing goals. All stakeholders in this county must truly believe in their power to influence the four elements to increase student graduation, work together and see the bigger picture for the community and the overall well being of the county as a result of this unified focus.

Implications for Policy and Practice

The findings of this study have far reaching implications for this school district and community, for rural Appalachia, and for those interested in increasing the likelihood of student success. For educators in this and other school districts the findings of this research provide a blueprint that leads the way to prescriptive dropout prevention solutions for rural school districts that address individual district needs and considers the importance of place. "Urban research is the basis for many model programs for preventing dropouts. Such programs, aimed at minority and inner-city youth, are not always appropriate or practical for rural areas" (DeYoung et al., 1989, p. 57). Research has shown that programs designed to prevent students from dropping out should be implemented in the middle grades. Many students who are future dropouts can be identified by the sixth grade; some students can be identified even earlier (National High School Center, 2007). One significant study found that more than half of sixth graders who met the following three criteria dropped out of school: school attendance rates of less than 80 percent; low grades in behavior from teachers; failing either English or math

(Balfanz & Herzog, 2005). Knowing which factors lead to student graduation and which factors contribute to student dropouts provides a clear picture based on the schools' student population and is sensitive to the culture of rural Appalachia. Among many factors presented, elementary school, gender, race, mobility, family status, retention, and educator and student perceptions were items that created a more complete picture of the dilemma that exists in this county and leads the way for educators to address the low graduation rate and high dropout rate. District and school teams must analyze their data and create measurable goals in district and school improvement plans that will impact the graduation rate and reduce the dropout rate for districts. Change theorists such as Michael Fullan (2006) speak of the importance of utilizing data to increase accountability and empower the institution. This is one item that will lead to systemic change.

Specific Recommendations

Interpretations presented here and in earlier sections of this chapter suggest the following policy and/or procedural recommendations which focus on the importance of a systemic professional development plan as aligned in Senate Bill 1 to include concentrated efforts of post secondary education officials to assist the district in implementing these recommendations.

Recommendation 1: The findings on student mobility show that it has an effect on student success. District and school content and curriculum specialists, site based decision making councils, assessment coordinators, professional learning committees and others who approve and map the curriculum may want to revise or create curriculum maps, pacing guides, common assessments and other items that are consistently utilized

and monitored through classroom observations, walk-thru and instructional rounds district wide so that students who are constantly mobile will not have gaps in their instruction.

Recommendation 2: According to research findings in this district, grade retention increases the likelihood of students dropping out of school (Shepard & Smith, 1990). District officials may want to review and update grade retention policies and provide training to staff on research related to the practice. This research also has implications for school finance officers and school district budgets. The practice of retention is expensive in small rural districts that generate small local tax revenue. Alternative solutions to retention should be explored.

Recommendation 3: Policies regarding school attendance zones should be cognizant of low income students. New and revised policies should address inequities.

Recommendation 4: The research findings in this district also show that parent involvement is important but lacking in the district. School and district wide efforts should focus on avenues to increase parental involvement.

In addition to these recommendations, the National High School Center (2007) recommends the following components when designing a program to prevent high school dropouts:

- Develop a system that tracks data including attendance, grades, promotion status, and grades in behavioral areas.
- Based on established criteria, determine which students are not on track for graduation and put intervention programs in place.

- Follow ninth grade students who miss 10 or more days of school during the first month of high school (Neild & Balfanz, 2006).
- Examine first quarter grades for ninth graders, paying particular attention to failure in core subjects. Identifying students who receive more than one F in core subjects and who are not promoted to the tenth grade has found to be 85 percent successful in ascertaining who will graduate on time (Allensworth & Easton, 2005).
- Continue to examine grades for ninth graders after the first quarter. By this time, course grades and failures tend to be better predictor criteria for students who will eventually drop out than attendance records (Allensworth & Easton, 2007). In addition, monitor grades at the end of the freshman year. This practice has found to be successful in identifying students who will struggle in later years (Allensworth & Easton, 2007). Grades tend to be a better predictor of future dropouts than standardized test scores (National High School Center, 2007).
- Follow ninth grade students who have failed too many subjects to be promoted to tenth grade. Research has shown that grade retention often leads to future dropouts.

Implications for Future Research

Results of this research suggest a need for related studies. The study sample was predominately white; however there were African American students in this rural Appalachian school district. Findings of this study revealed that African American students were among the students experiencing academic success in this district.

Nationally, African Americans drop out at higher rates than white students. In 2007, graduation rates for Native American, Hispanic, and African American students were no higher than 56 percent; the gap in graduation rate is as much as 26 percent between these minorities and their white peers (Editorial Projects in Education, 2010). Further studies are needed to examine African American students spanning several cohorts in this county or other Eastern Kentucky counties are needed to see if national findings hold true for African Americans in this region. If there is found to be a contrast to national findings on dropouts for African Americans the question is why.

Nationally females are more likely to graduate and males are more likely to drop out. There was found a significant increase in the percentage of males graduating and a significant increase in the percentage of females dropping out from one cohort to the next. Reflective of the literature review, males drop out at a higher rate than females and of all races and ethnicities, females graduate at high rates than do males (Alliance for Excellent Education, 2009). The limitations of this research study do not permit the interpretations of this discovery. This research leads the way for a possible study of the trends for this district on past or future cohorts to see if there are patterns that exist in regards to gender.

Findings from this research show that more than five percent of students in each cohort chose home school as an option. The qualitative research presented only came from interviews with educators in this school district on the topic of home school. The perception of home school in the county given by educators did not speak positively about the option for students in this district. It is important to note that the limitations of

this research did not allow any home school students to be interviewed. This research leads the way for additional research for students in this district or other rural Appalachian districts who leave the public school to home school. Why did the students in the cohort choose home school? Where are they now?

Finally, this case study focused on one rural Appalachian county. It can be argued that the strengths are the same as the limitations of this study. This study could be extended to include several Kentucky rural Appalachian school districts. Future research could collect and analyze data similar to this study to observe trends and offer research based solutions based on findings within the region.

REFERENCES

- Alexander, K.L., Entwistle, D.R., & Horsey, C. (1997). From first grade: Early foundations of high school dropout. *Sociology of Education*, 70(2), 87-107.
- Alliance for Excellent Education. (2006a). Demography as destiny: How America can build a better future. Washington, DC: Author. Retrieved from <http://www.all4ed.org/files/demography.pdf>.
- Alliance for Excellent Education. (2006b). Healthier and wealthier: Decreasing health care costs by increasing educational attainment. Washington, DC: Author. Retrieved from <http://www.all4ed.org/files/HandW.pdf>.
- Alliance for Excellent Education. (2009). The high cost of high school dropouts: What the nation pays for inadequate high schools. Washington, DC: Author. Retrieved from <http://www.all4ed.org/files/HighCost.pdf>.
- Alliance for Excellent Education. (2009). Understanding high school graduation rates in Kentucky. Washington, DC: Author. Retrieved from http://www.all4ed.org/files/Kentucky_wc.pdf.
- Alexander, K. Entwisle, D., & Kabbani, N. (1999). Grade retention, social promotion, and “third way” alternatives. Paper presented at National Invitational Conference for Early Childhood Learning: Programs for a New Age, Alexandria, VA.
- Allensworth, E. & Easton, J.Q. (2005). The on-track indicator as a predictor of high school graduation. Chicago: Consortium on Chicago School Research.

- Allensworth, E. & Easton, J.Q. (2007). What matters for staying on-track and graduating in Chicago public high schools: A close look at course grades, failures and attendance in the freshman year. Chicago, IL: Consortium on Chicago School Research.
- Amanpour, C. (Interviewer) & Duncan, A. (Interviewee). (2010). Crisis in the classroom. [Interview transcript]. Retrieved from <http://abcnews.go.com/ThisWeek/week-transcript-crisis-classroom/story?id=11506701>.
- Amos, J. (2008). Dropouts, diplomas, and dollars: U.S. high schools and the nation's economy. Washington, DC: Alliance for Excellent Education.
- Anderson, G.E., Jimerson, S.R., & Whipple, A.D. (2005). Student ratings of stressful experiences at home and school: Loss of a parent and grade retention as superlative stressors. *Journal of Applied School Psychology, 21*(1), 1-20.
- Anderson, L.S. & Limoncelli, R.J. (1982). Meeting the needs of the high risk, difficult to reach student: Creative educational approaches. *School Counselor, 29*(5), 381-387.
- Anyon, J. (1980). Social class and the hidden curriculum of work. *Journal of Education, (162)*1, 67-92.
- Appalachian Regional Commission. (n.d.). The Appalachian region. Retrieved from http://www.arc.gov/appalachian_region/TheAppalachianRegion.asp.
- Astin, A. W. (1993). *What matters in college?* San Francisco, CA: Jossey-Bass.
- Astone, N.M. & McLanahan, S.S. (1994). Family structure, residential mobility and school dropout: A research note. *Demography, 31*(4), 575-584.

- Auwarter, A. & Aruguete, M. (2008). Effects of student gender and socioeconomic status on teacher perceptions. *Journal of Educational Research, 101*(4), 242-246.
- Bandura, A. (1977). *Social learning theory*. New York, NY: General Learning Press.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148.
- Bandura, A., Barbaranelli, C., Caprara, G.V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development, 67*(3), 1206-1222.
- Beck, F.D. & Shoffstall, G.W. (2005). How do rural schools fare under a high stakes testing regime? *Journal of Research in Rural Education, 20*(14), 1-12.
- Beesley, A., Moore, L. & Gopalani, S. (2010). Student mobility in rural and nonrural districts in five Central region states (Issues & Answers Report, REL 2010-089). Washington, CD: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central.
- Benner, A.D. & Mistry, R.S. (2007). Congruence of mother and teacher educational expectations and low-income youth's academic competence. *Journal of Educational Psychology, 99*(1), 140-153.
- Berry, W. (2000). *Jayber crow*. Berkley, CA: Counterpoint.
- Bickel, R. & Howley, C. (2000). The influence of scale on school performance: A multilevel extension of the Matthew Principle. *Education Policy Analysis Archives, 8*(22).

- Bickel, R. (2007). *Multi-level analysis for applied research: It's just regression!* New York: Guilford Press.
- Billings, D.B. & Blee, K. M. (2000). *The road to poverty: The making of wealth and hardship in Appalachia*. New York, NY: Cambridge University Press.
- Billings, D.B., Norman, G., & Ledford, K. (Eds.) (1999). *Back talk from Appalachia: Confronting stereotypes*. Lexington, KY: University of Kentucky Press.
- Boex, L. & Martinez-Vasquez, J. (1998). Structure of school districts in Georgia: Economies of scale and determinants of consolidation. Atlanta, GA: School of Policy Studies, Georgia State University, FRP Report No. 16.
- Byrnes, D. & Yamamoto, K. (2001). Academic retention of elementary pupils: An inside look. *Education, 106*(2), 208-214.
- Cataldi, E.F., Laird, J., and KewalRamani, A. (2009). High school dropout and completion rates in the United States: 2007 (NCES 2009-064). National Center for Education Statistics, Institute of Education Sciences, Washington, DC: U.S. Department of Education. Retrieved from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009064>.
- Caudill, H.M. (1963). *Night comes to the cumberlands*. Boston: Little, Brown and Co.
- Caudill, M. (1993). School social work services in rural Appalachian systems: Identifying and closing the gaps. *Social Work in Education, 15*(3), 179-185.
- Chen, G. (2008). Communities, students, schools, and school crime: A confirmatory study of crime in U.S. high schools. *Urban Education, 43*(3), 301-318.

- Christle, C.A., Jolivette, K., & Nelson, C.M. (2007). School characteristics related to high school dropout rates. *Remedial and Special Education, 28*(6), 325-339.
doi: 10.1177/07419325070280060201
- Clampet-Lundquist, S. (1998). Expanding the neighborhood effects model: Mixing quantitative and qualitative analysis. *Urban Geography, 19*(5), 459-476.
- Cohen, L, Manion, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). New York: Routledge.
- Coleman, J.S., Campbell, E. Q., Hobson, C.J., McPartland, J., Mood, A.M., Weinfeld, F.D., & York, R.L. (1966). Equality of educational opportunity. Washington, DC: U.S. Department of Health Education, and Welfare.
- Coleman, P.K. Karraker, K.H. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review, 18*(1), 47-85.
- Coopersmith, S. (1967). *The antecedents of self-esteem*. San Francisco: Freeman.
- Creswell, J.W. (2007). Research design: Qualitative, quantitative, and mixed methods approaches (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Cuseo, J., Fecas, V., & Thompson, A. (2010). *Thriving in college and beyond: Research-based strategies for academic success and personal development* (2nd ed.). Dubuque, IA: Kendall/Hunt Publishing.
- David, J. (2008). Grade retention. *Educational Leadership, 65*(6), 83-84.
- Davis-Kean, P.D. (2005). The influence of parent education and family income on child achievement: The indirect role of parental expectations and the home environment. *Journal of Family Psychology, 19*(2), 294-304.

- Denzin, N.K. & Lincoln, Y.S. (2005). *The sage handbook of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Devine, J. (1996). *Maximum security*. Chicago: University of Chicago.
- DeYoung, A.J. (1995). *The life and death of rural high school: Farewell little Kanawha*. New York: Garland.
- DeYoung, A.J., Huffman, K., & Turner, M.E. (1989). Dropout issues and problems in rural America, with a case study of one Central Appalachian school district. In L. Weis, E. Farrar, & Petrie, H.G. (Eds.), *Dropouts from school: Issues, dilemmas, and solutions* (pp.55-77). Albany, NY: State University of New York Press.
- Drake, R. (2001). *A history of Appalachia*. Lexington, KY: The University Press of Kentucky.
- Dumais, S.A. (2006). Early childhood cultural capital, parental habitus, and teachers' perceptions. *Poetics*, 34(2), 83-107.
- Duncan, C. (1999). *Worlds apart: Why poverty persists in rural America*. New Haven, CT: Yale University Press.
- Eccles, J.S. Adler, T.F., & Kaczala, C.M. (1982). Socialization of achievement attitudes and beliefs: Parental influences. *Child Development*, 53(2), 310-321.
- Eccles, J.S., Wigfield, A. & Schiefele, U. (1998). Motivation to succeed. In N. Eigelberg (Ed.), *Handbook of child psychology: Volume 3 – Social, emotional and personality development* (5th ed., pp. 1017-1095). New York: Wiley.
- Editorial Projects in Education. (2009). Diplomas count: Broader horizons: The challenge of college readiness for all students. *Education Week*, 28(34).

- Editorial Projects in Education. (2010). Diplomas count: Graduation by the numbers: Putting data to work for student success. *Education Week*, 29(34).
- Eller, R. D. (2008). *Uneven ground: Appalachia since 1945*. Lexington, KY: University Press of Kentucky.
- Engec, N. (2006). Relationship between mobility and student performance and behavior. *Journal of Educational Research*, 99(3), 167-178.
- Ensminger, M., Lamkin, R., & Jacobson, N. (1996). School leaving: A longitudinal perspective including neighborhood effects. *Child Development*, 67(5), 2400-2416.
- Enters, T. (1994). Grade retention: A survey of elementary school teachers' beliefs. Unpublished master's thesis. University of Wisconsin-Whitewater.
- Fields, J. & Smith, K. (1998). *Poverty, family structure, and child well-being*. Paper presented at the Annual Meeting of the Population Association of America, Chicago, IL.
- Fullan, M. (2006). *Turnaround leadership*. San Francisco: Jossey-Bass Publishing.
- Furstenburg, F. & Hughes, M. (1994). The influence of neighborhood on children's development: A theoretical perspective and research agenda. Conference on Indicators of Children's Well-Being, Bethesda, MD.
- Garner, C. & Raudenbush, S. (1991). Neighborhood effects on educational attainment: A multilevel analysis. *Sociology of Education*, 64(4), 251-262.
- Gibbs, R. (2000). The challenge ahead for rural schools. *Forum for Applied Research and Public Policy*, 15(1), 82-87. Knoxville, TN: Forum for Applied Research and Public Policy.

- Gibbs, R. (2003). Rural education at a glance. Rural Development Research Report No. (RDRR-98). Washington, DC: United States Department of Agriculture.
- Given, L. (2008). *The Sage book encyclopedia of qualitative methods*. Thousand Oaks, CA: Sage Publications.
- Greene, J.C. & Caracelli, V.J. (1997). *Advances in mixed-method evaluation: the challenges and benefits of integrating diverse paradigms*. San Francisco: Jossey-Bass.
- Gruman, D.H., Harachi, T.W., Abbott, R.D., Catalano, R.F., & Fleming, C.B. (2008). Longitudinal effects of student mobility on three dimensions of elementary school engagement. *Child Development, 79*(6), 1833-1852.
- Haaga, J. (2004). Educational attainment in Appalachia. Washington, DC: Appalachian Regional Commission. Retrieved from http://www.arc.gov/assets/research_reports/EducationalAttainmentinAppalachia.pdf.
- Halle, T.G., Kurtz-Costes, B., & Mahoney, J.L. (1997). Family influences on school achievement in low-income, African American children. *Journal of Educational Psychology, 89*(3), 527-537.
- Hammersley, M. & Atkinson, P. (1995). *Ethnography: Principles in practice* (2nd ed.). New York, NY: Routledge.
- Hand, C. & Payne, E. (2008). First generation college students: A study of Appalachian student success. *Journal of Developmental Education, 32* (1) 4-15.

- Hargreaves, A. & Fink, D. (2006). *Sustainable leadership*. San Francisco, CA: Jossey-Bass.
- Harlow, C. (2003). Education and correctional populations. Bureau of Justice Statistics Special Report. Washington, DC: U.S. Department of Justice.
- Hashaw, R. M., Hammond, C. J., & Rogers, P. H. (1990). Academic locus of control and the collegiate experience. *Research & Teaching in Developmental Education*, 7(1), 45–54.
- Hass, M.H. (1989). Relationship between locus of control and self-efficacy in freshman probation and non-probation college students. Unpublished master's thesis, University of Utah, Salt Lake City.
- Haveman, R. Wolfe, B., & Spaulding, J. (1991). Childhood events and circumstances influencing high school completion. *Demography*, 28(1), 133-157.
- Hayden, W. (2004). Appalachian diversity: African-American, Hispanic/Latino and other populations. *Journal of Appalachian Studies*, 10(3), 306.
- Hickman, G.P., Bartholomew, M., Mathwig, J., & Heinrich, R. (2008). Differential developmental pathways of high school dropouts and graduates. *Journal of Educational Research*, 102(1), 3-14.
- Hosmer, D. & Lemeshow, S. (2000). *Applied logistic regression*. Hoboken, NJ: John Wiley & Sons, Inc.
- Howard, M. A. P. & Anderson, R. J. (1978). Early identification of potential school dropouts: A literature review. *Child Welfare*, 57(4), 221-231.
- Jackson, S.L. (2009). *Research methods and statistics: A critical thinking approach* (3rd ed.) Belmont, CA: Wadsworth, Cengage Learning.

- Jencks, C., Smith, M., Ackland, H.M.J., Cohen, D., Heyns, H.G.B., & Michelson, S. (1972). *Inequality: A reassessment of the effect of family and schooling in America*. New York, NY: Basic Books.
- Jimerson, S., Pletcher, S., & Kerr, M. (2005). Alternatives to grade retention. *Principal Leadership*, 5(6), 11-15.
- Johnson, J. (2007). Critical theory and school leadership. In A. Howley & C. Howley (Eds.) *Thinking about schools: New theories and innovative practice* (pp. 233-265). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Johnson, J. & Strange, M. (2007). *Why rural matters 2007: The realities of rural education growth*. Rural School and Community Trust. Retrieved from <http://files.ruraledu.org/wrm07/WRM07.pdf>.
- Johnson, J., Thompson, A., & Naugle, K. (2009). Place-conscious capacity-building: A systemic model for the revitalization and renewal of rural schools and communities through university-based regional stewardship. *Rural Society*, 19(2), 178-188.
- Johnson, M.K. & Crosnoe, R., & Elder, G.H. (2001). Students' attachment and academic engagement: The role of race and ethnicity. *Sociology of Education*, 74(4), 318-340.
- Junn, J. (2005). The political costs of unequal education. Paper prepared for the Symposium on the Social Costs of Inadequate Education. Teachers College, Columbia University.
- Kagan, D. M. (1992). Implications of research on teacher beliefs. *Educational Psychologist*, 27, 65-90.

- Kannapel, P. & DeYoung, A. (1999). The rural school problem in 1999: A review and critique of the literature. *Journal of Research in Rural Education*, 15(2), 67-79.
- Keller, B. (2000). Small schools found to cut price of poverty. *Education Week*, 19(22), 6.
- Kelly, K. (1999). Retention vs. social promotion: Schools search for alternatives. *Harvard Education Letter*, 15(1), 1-3.
- Kentucky Council on Postsecondary Education. (2008). 2008-10 county profiles. Retrieved from http://cpe.ky.gov/NR/rdonlyres/930DFCE2-8031-499A-9456-488C20D94B95/0/0810_CountyProfiles_FINAL.pdf.
- Kentucky Department of Education. (2010). Nonacademic Data 2004-2009. Retrieved from http://www.education.ky.gov/kde/administrative+resources/testing+and+reporting+/reports/nonacademic+data/nonacademic+data+2004_2009.htm.
- Khattri, N., Riley, K., & Kane, M. (1997). Students at risk in poor, rural Areas: A review of the research. *Journal of Research in Rural Education*, 13 (2), 79-100.
- Kuh, G.D. (2000). The college student report. Bloomington: National Survey of Student Engagement, Indiana University Center for Postsecondary Research.
- Laird, J., Cataldi, E.F., KewalRamani, A., & Chapman, C. (2008). Dropout and completion rates in the United States: 2006 (NCES 2008-053). National Center for Education Statistics, Institute of Education Sciences, Washington, DC: U.S. Department of Education. Retrieved from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008053>.

- Lareau, A. (1989). *Home advantage: Social class and parental intervention in elementary education*. New York, NY: Falmer Press.
- Lefcourt, H.M. (1982). *Locus of control: Current trends in theory and research*. Hillsdale, NJ: Erlbaum.
- Lesisko, L.J., & Wright, R.J. (2009). *An analysis of rural Pennsylvania school district's transient population and NCLB scores*. Paper presented at the Annual Meeting of the Eastern Educational Research Association, Sarasota, Florida.
- Light, H.W. & Morrison, P. (1990). *Beyond retention: A survival guide for regular classroom teachers*. Novato, CA: Academic Therapy.
- Lincoln, Y. & Guba, E. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.
- Lofland, J. & Lofland, L. H. (1994). *Analyzing social settings: A guide to qualitative observation and analysis* (3rd ed.). Belmont, CA: Wadsworth, Cengage Learning.
- Lyons, J. (1999). *K-12 construction facts*. Alexandria, VA: The Association of Higher Education Facilities Officers.
- Mahan, G. & Johnson, C. (1983). Portrait of a dropout: Dealing with academic, social, and emotional problems, *NASSP Bulletin*, 67(462), 80-83.
doi: 10.1177/019263658306746212
- Marsh, H.W. (1990). Causal ordering of academic self-concept and academic achievement: A multiwave, longitudinal panel analysis. *Journal of Educational Psychology*, 82(4), 646-656.
- Mayer, S. & Jencks, C. (1989). Growing up in poor neighborhoods: How much does it matter? *Science*, 243(4897), 1441-1445.

- McCoy, A. R., & Reynolds, A. J. (1999). Grade retention and school performance: An extended investigation. *Journal of School Psychology, 37* (3), 273-298.
- McNiff, J., Lomax, P., & Whitehead, J. (2003). *You and your action research project* (2nd ed.). New York, NY: Routledge.
- Meisels, S. J., & Liaw, F. R. (1993). Failure in grade: Do retained students catch up? *Journal of Educational Research, 87*, 69-77.
- Muenning, P. (2005). *Health returns to education interventions*. Paper prepared for the Symposium on Social Costs of Inadequate Education at Columbia University. New York.
- Muijs, D. (2004). *Doing quantitative research in education with SPSS*. Thousand Oaks, CA: Sage Publications.
- Nason, B. R. (1991). Retaining children, is it the right decision? *Childhood Education, 67*, 300-304.
- Natale, J. (1991). Rethinking grade retention. *Education Digest, 56*(9), 30-33.
- National Association of School Psychologists, (2003). Position statement on student grade retention and social promotion. Retrieved from http://www.nasponline.org/about_nasp/pospaper_graderetent.aspx.
- National Center for Education Statistics. (2006). The condition of education 2006, NCES 2006-071. Washington, DC: U.S. Government Printing Office.
- National Center for Education Statistics. (2008). CCD public school data 2008-2009 school year.

- National High School Center. (2007). Approaches to dropout prevention: Heeding early warning signs with appropriate interventions. Retrieved from http://www.betterhighschools.org/docs/NHSC_ApproachesToDropoutPrevention.pdf.
- Neild, R.C. & Balfanz, R. (2006). Unfulfilled promise: The dimensions and characteristics of Philadelphia's dropout crisis, 2000-2005. Baltimore: Center for Social Organization of Schools, Johns Hopkins University.
- Nord, C.W., Brimhall, D., & West, J. (1997). Fathers' involvement in their children's Schools (NCES 98-091). National Center for Education Statistics, Washington, DC: U.S. Department of Education. Retrieved from <http://nces.ed.gov/pubs98/98091.pdf>.
- Owings, W.A., & Magliaro, S. (1998). Grade retention: A history of failure. *Educational Leadership*, 56(1), 86-88.
- Pascarella, E. & Terenzini, P. (2005). *How college affects students: A third decade of research* (Vol. 2). San Francisco, CA: Jossey-Bass.
- Pearce, R.R. (2006). Effects of cultural and social structural factors on the achievement of white and Chinese American students at school transition points. *American Educational Research Journal*, 43(1), 75-101.
- Perroncel, C.B. (2000). Getting kids ready for school in rural America. Rural Education Issue Document. Charleston, WV: AEL, Inc.
- Phelan, W.T. (1992). Building bonds to high school graduation: Dropout intervention with seventh and eighth graders. *Middle School Journal*, 24(2), 33-35.

- Planty, M., Hussar, W., Snyder, T., Kena, G., KewalRamani, A., Kemp, J., Bianco, K., & Dinkes, R. (2009). *The condition of education 2009* (NCES 2009-081). National Center for Education Statistics, Institute of Education Sciences, Washington, DC: U.S. Department of Education.
- Provasnik, S., KewalRamani, A., Coleman, M.M., Gilbertson, L., Herring, W., & Xie, Q. (2007). *Status of education in rural America* (NCES 2007-040). National Center for Education Statistics, Institute of Education Sciences, Washington, DC: U.S. Department of Education.
- Pudup, M., Billings, D., & Waller, A. (1995). *Appalachia in the making: The mountain south in the nineteenth century*. Chapel Hill, NC: University of North Carolina Press.
- Purkey, W.W. (1970). *Self-concept and school achievement*. Englewood Cliffs, NJ: Prentice Hall.
- Raphael, S. (2004). *The socioeconomic status of black males: The increasing importance of incarceration*. Goldman School of Public Policy, University of California, Berkeley.
- Reeves, D. (2009). *Leading change in your school: How to conquer myths, build commitment, and get results*. Alexandria, VA: ASCD.
- Reynolds, A.J. (1992). Grade retention and school adjustment: An explanatory analysis. *Education Evaluation and Policy Analysis, 14*, 101-121.
- Rist, R.C. (1970). Student social class and teacher expectations: The self-fulfilling prophecy in ghetto education. *Harvard Educational Review, 40*(3), 411-451.

- Roderick, M. (1995). Grade retention and school dropout: Policy debate and research questions. *Phi Delta Kappa Research Bulletin*, 15. Bloomington, IN: Phi Delta Kappa Center for Education, Development, and Research.
- Roscigno, V.J. & Ainsworth-Darnell, J.W. (1999). Race, cultural capital, and educational resources: Persistent inequalities and achievement returns. *Sociology of Education*, 72(3), 158-178.
- Rumberger, R.W. & Larson, K.A. (1998). Student mobility and the increased risk of high school dropout. *American Journal of Education*, 107(1), 1-35.
- Rutchick, A.M., Smyth, J.M., Lopoo, L.M., & Dusek, J.B. (2009). Great expectations: The biasing effects of reported child behavior problems on educational experiences and subsequent academic achievement. *Journal of Social and Clinical Psychology*, 28(3), 392-413.
- Schafft, K.A. (2005). The incidence and impacts of student transiency in upstate New York's rural school districts. *Journal of Research in Rural Education*, 20(15), 1-13.
- Schafft, K.A. (2006). Poverty, residential mobility, and student transiency within a rural New York school district. *Rural Sociology*, 71(2), 212-231.
- Schafft, K.A. & Killeen, K.M. (2007). Assessing student mobility and its consequences: A three-district case study. Albany, NY: The Research Foundation of the State University of New York.

- Seastrom, M., Hoffman, L., Chapman, C., & Stillwell, R. (2007). The averaged freshman graduation rate for public high schools from the common core of data: School years 2002–03 and 2003-04 (NCES 2006–606rev). U.S. Department of Education, National Center for Education Statistics. Washington, DC: Author. Retrieved from <http://nces.ed.gov/pubs2006/2006606rev.pdf>.
- Shaffer, L.S. & Seyfrit, C.L. (2000). Rural youth and their transitions and pathways connecting school and work: A white paper. Report from the conference “Rural Youth and Their Transition from School to Work.” Norfolk, VA: Old Dominion University.
- Sherman, A. (1992). *Falling by the wayside: Children in rural America*. Washington, DC: Children’s Defense Fund Publications.
- Shepard, L.A. & Smith, M.L. (Eds.) (1989). *Flunking grades: Research and policies on retention*. Philadelphia, PA: Falmer Press.
- Shepard, L.A. & Smith, M. L. (1990) Synthesis of research on grade retention. *Educational Leadership*, 47(8), 84-88.
- Singh, K. & Dika, S. (2003). The educational effects of rural adolescents’ social networks. *Journal of Research in Rural Education*, 18(2), 114-128.
- Smith, G. (2002). Place-based education: Learning to be where we are. *Phi Delta Kappan*, 83(8), 584-594.
- Smith, T. (1995). *The condition of education: 1995*. Washington, DC: U.S. Government Printing Office.

- Solon, G., Page, M., & Duncan, G. (2000). Correlations between neighboring children in their subsequent educational attainment. *Review of Economics and Statistics*, 82(3), 383-393.
- Sparks, E., Johnson, J., & Akos, P. (2010). Dropouts: Finding the needles in the haystack. *Educational Leadership*, 67(5), 46-49.
- Starr, K. & White, S. (2008). The small rural school principalship: Key challenges and cross-school responses. *Journal of Research in Rural Education*, 23(5), 1-12.
- Stevenson, K. (1996). Elementary school capacity: What size is the right size? *Educational Facility Planner*, 33(4), 10-14.
- Stillwell, R. (2010). Public school graduates and dropouts from the common core of data: School year 2007-08 (NCES 2010-341). National Center for Education Statistics, Institute of Education Sciences, Washington, DC: U.S. Department of Education. Retrieved from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010341>.
- Stern, J. (1994). The condition of education in rural schools. Washington, DC. U.S. Department of Education.
- Strange, M. (December, 2009). Large very low poverty districts benefit in Title I formula at expense of high poverty districts large and small. Rural Policy Matters. Retrieved from <http://www.ruraledu.org/articles.php?id=2371>.
- Swanson, C.B. & Schneider, B. (1999). Students on the move: Residential and educational mobility in America's schools. *Sociology of Education*, 72(1), 54-67.

- Sy, S.R. & Schulenberg, J.E. (2005). Parent beliefs and children's achievement trajectories during the transition to school in Asian American and European American families. *International Journal of Behavioral Development, 29*(6), 505-515.
- Tashakkori, A. & Teddlle, C. (2003). *Handbook of mixed methods in social & behavioral research*. Thousand, Oaks, CA: Sage Publications.
- Thomas, A.H. (1992). Alternatives to retention: If flunking doesn't work, what does? Oregon School Study Council Bulletin, *35*(6). Eugene, OR: Oregon School Study Council.
- Thomas, R. M. (2003). *Blending qualitative & quantitative research methods in theses and dissertations*. Thousand Oaks, CA: Sage Publications.
- Thompson, A. (2008, September). *The four pillars of student success*. Presentation for the Center for Educational Research in Appalachia.
- Thompson, A. & Luhman, R. (1997). Familial predictors of educational attainment: Regional and racial variations. In P. Hall (Eds.), *Race, ethnicity, and multiculturalism: Policy and practice* (pp. 63-88). New York, NY: Garland Publishing.
- Thorson, G.R. & Maxwell, N.J. (2002). Small schools under siege: Evidence of resource inequality in Minnesota public schools. St. Peter, MN: Center for Rural Policy and Development.
- Tomchin, E. M., & Impara, J. C. (1992). Unraveling teachers' beliefs about grade retention. *American Educational Research Journal, 29*, 199-223.

- Tompkins, R. & Deloney, P. (1994). Rural students at risk in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. Austin, TX: Southwest Educational Development Lab, Office of Educational Research and Improvement.
- U.S. Census Bureau. (2006). Income in 2005 by educational attainment of the population 18 years and over. Retrieved from <http://www.census.gov/population/www/socdemo/education/cps2006.html>.
- U.S. Census Bureau. (2008). Educational attainment: 2004 – 2008 American community survey 5-year estimates.
- U.S. Census Bureau. (2009). American community survey.
- U.S. Department of Agriculture. (2003). *Rural education at a glance* (Rural Development Research Report No. 98). Retrieved from http://www.ers.usda.gov/publications/rdr98/rdr98_lowres.pdf
- U.S. General Accounting Office. (1994). Elementary school children: Many change schools frequently, harming their education. Washington, DC: General Accounting Office.
- Van Overwalle, F. I., Mervielde, I., & De Schuyter, J. (1995). Structural modeling of the relationships between attributional dimensions, emotions, and performance of college freshmen. *Cognition and Emotion*, 9(1), 59–85.
- Vartanian, T.P., Karen, D., Buck, P.W., & Cadge, W. (2007). Early factors leading to college graduation for Asians and non-Asians in the United States. *The Sociological Quarterly*, 48(2), 165-197.

- Vermont Department of Education. (1998). Report of the small schools group.
Montpelier, VT: Vermont Department of Education.
- Weinstein, R. (2002). *Reaching higher: The power of expectations in schooling*.
Cambridge, MA: Harvard University Press.
- Weis, L., Farrar, E., & Petrie, H.G. (1989). *Dropouts from school: Issues, dilemmas, and solutions*. Albany, NY: State University of New York Press.
- The White House, Office of the Press Secretary. (2010). President Obama announces steps to reduce dropout rate and prepare students for college and careers [Press release]. Retrieved from <http://www.whitehouse.gov/the-press-office/president-obama-announces-steps-reduce-dropout-rate-and-prepare-students-college-an>.
- Wilhite, S. (1990). Self-efficacy, locus of control, self-assessment of memory ability, and student activities as predictors of college course achievement. *Journal of Educational Psychology*, 82 (4), 696–700.
- Williams, J. (2002). *Appalachia: A history*. Chapel Hill, NC: University of North Carolina Press.
- Witmer, S., Hoffman, L., & Nottis, K. (2004). Elementary teachers' beliefs and knowledge about grade retention: How do we know what they know? *Education*, 125(2), 173-193.
- Wylie, R. (1979). *The self-concept: Theory and research on selected topics*. Lincoln, NE: University of Nebraska.
- Yamamoto, Y. (2007). Unequal beginnings: Socioeconomic differences in Japanese mothers support of their children's early schooling. *Dissertation Abstract International*, 68(3), 172.

Yamamoto, Y. & Holloway, S. (2010). Parental expectations and children's academic performance in sociocultural context. *Educational Psychology Review*, 22(3), 189-214. doi: 10.1007/s10648-010-9121-z

Zhan, M. (2005). Assets, parental expectations and involvement, and children's educational performance. *Children and Youth Services Review*, 28(8), 961-975.

APPENDIX A
LYTTLE COUNTY CODING SHEET

Lytle County Coding Sheet

Column Name	Original Data	Code
Student ID	Student Name	Number
Elem School	Elementary 1	1
	Elementary 2	2
	Elementary 3	3
	Elementary 4	4
	Elementary 5	5
	Elementary 6	6
	Elementary 7	7
	Elementary 8	8
	Elementary 9	9
Ethnicity	White	1
	African American	2
	Hispanic	3
	Asian	4
	Other	5
	Unknown	6
Gender	Male	0
	Female	1
Mobility	Number	Number
Father Only	Yes	1
	No	0
Mother Only	Yes	1
	No	0
Both Parents	Yes	1
	No	0
Grandparent/Other	Yes	1
	No	0
Withdrawal Reason	Grad	1
	Dropout	2
	Still Enrolled	3
	Home School	4
	Moved to another district	5
	Deceased	6
Grade Retention	Number	Number
Graduate	Yes	1
	No	0
Dropout	Yes	1
	No	0

APPENDIX B

LYTTLE COUNTY TEACHER/PRINCIPAL INTERVIEW QUESTIONNAIRE

Lyttle County Teacher/Principal Interview Questionnaire

1. Tell me a little about your educational background and experience
2. Tell me about your school and community?
3. What drives students to succeed in school? What about your school?
4. What kind of environment do most of your students face day to day?
5. What effect, if any, does grade retention have on high school graduation here?
6. Why do you think students get retained in Lyttle and other rural areas?
7. Have you ever retained a student? Why?
8. How would you describe the role of family in the lives of students in Lyttle?
9. Why do families choose to home school their child in Lyttle?
10. How do students and families view the concept of dropping out of school in this community?
11. Do you think all of the elementary schools are created equal in Lyttle County?
12. What do you think are the distinctive differences between these schools?
13. What reasons do you believe contributes to student drop-outs?
14. What dropout prevention strategies are in place here?
15. What do we do well in Lyttle County?
16. We are at the end of our interview but is there anything you like to add that maybe you were thinking or we did not cover?

APPENDIX C
STUDENT GRADUATE INTERVIEW QUESTIONNAIRE

Student Graduate Interview Questionnaire

1. What was the driving force behind you wanting to graduate from high school?
2. What are the unique challenges students in this county face on the road to graduation?
3. What road blocks did you encounter on your journey to graduating from high school?
4. Why do students in this community drop out of school?
5. What role did the community play in your success?
6. What role did your family play in your success?
7. What role did your school play in your success?
8. What did you personally do that lead to you graduating from high school?
9. How do students and families view the concept of dropping out of school in this community?
10. What could educators in this school district do to ensure that more students graduate from high school?
11. We are at the end of our interview but is there anything you like to add that maybe you were thinking or we did not cover?

APPENDIX D
STUDENT DROPOUT INTERVIEW QUESTIONNAIRE

Student Dropout Interview Questionnaire

1. Why do students in this community drop out of school?
2. Why do students in this county get retained?
3. How do students and families view the concept of dropping out of school in this community?
4. What could educators in this school district have done to have prevented you from dropping out of school?
5. Is there anything you would like to add that we did not cover in this interview?

VITA

Ann Lyttle-Burns received her Bachelor of Arts in Middle Grade Education and her Master of Arts in Middle Grade Education from University of the Cumberlands in 1991 and 1995, respectively. She has been employed in the Fayette County Public Schools system since 1991 and has served as Coordinator of At-Risk programs and Principal of Home/Hospital & Special Programs for over a decade. During her tenure with the district she has been a teacher and coach; served on and chaired committees for equity, school climate and budget; served on the site based decision making council; and participated in the Kentucky Leadership Academy. She is a member of Appalachian Studies Association, Phi Kappa Phi, Kentucky State Agency Children School Administrator Association, treasurer of the Bluegrass Alliance of Black School Educators, and has been nationally recognized by the Federal Job Corp, Who's Who, and received the Hall of Fame award from Upward Bound. For her dedication and commitment to motivate young people, she received the 21st Century Leadership award presented by Ben Stein at the University of the Cumberlands in 2009. In 2010 she was selected as the 2009-2010 Kentucky Outstanding School Administrator of the Year for her service on behalf of state agency children. Currently, she has been accepted into the Kentucky Department of Education's Minority Superintendent Internship Program where she will spend the next year shadowing high-performing superintendents around the state.