January 2016

An Evaluation of Educator Perceptions Regarding the Level of Family Engagement in Appalachian Kentucky Schools with Middle Grade Students

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AN EVALUATION OF EDUCATOR PERCEPTIONS REGARDING THE LEVEL OF FAMILY ENGAGEMENT IN APPALACHIAN KENTUCKY SCHOOLS WITH MIDDLE GRADE STUDENTS

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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
Doctor of Education
December, 2016

DEDICATION

This dissertation is dedicated to my spouse, Larry Jordan. Thank you for your support, encouragement, and belief that I could achieve this goal.

ACKNOWLEDGMENTS

Confucius said “It does not matter how slowly you go, as long as you do not stop”. Those words ring true when it came to my educational journey and without the support of the people listed below, this particular educational goal, would not have been achieved. My gratitude is given to the following people:

The family members who supported my educational efforts, listened to my ideas, read my documents, and sacrificed numerous hours of family time along the way. Specifically, I would like to acknowledge my spouse, Larry Jordan; my son and daughter-in-law, Joshua and Megan Jordan; my niece, Ashley Twichell, and; my parents, Ronny and Judy Brite. Thank you for cheering me on, offering advice, and supporting my efforts.

Dreama Gentry, Executive Director of Partners for Education at Berea College and her staff. Without their unwavering dedication to improving educational outcomes in Appalachian Kentucky schools through family engagement, I might still be struggling to narrow my topic.

The staff of Louisiana State University’s Improvement Grant for permission to use the survey, and the educators from the participating schools, who shared their experiences and perceptions about family engagement with me.

The faculty and staff of Eastern Kentucky University’s Educational Leadership and Policy Studies program, including Lillian Helton, Dr. Tara Shepperson, Dr. Paul Erickson, and Dr. Sherwood Thompson, who offered assistance, guidance, and input along the way.

My dissertation committee, Dr. James Bliss, Dr. Deborah West, and Dr. Ryan Wilson, who willingly gave of their time and knowledge to help me complete the work.

My dissertation Chair, Dr. Charles Hausman, who selflessly gave his insight, time, energy, and experiences to guide me through the process. I am indebted to Dr. Hausman for his steadfast support and help. Without him, I would never have completed this journey.

ABSTRACT

The purpose of this research was to evaluate the perceptions of educators about the level of family engagement occurring in rural Appalachian Kentucky schools with middle grade students. The research contributes to the field of rural family engagement studies by providing baseline metrics of educator perceptions on the current level of family engagement. The sample consisted of 95 educators working in Appalachian Kentucky public school districts with middle grade students. The educators were asked to respond to questions on four dimensions of family engagement. The dimensions of family engagement surveyed were: Communication, Family Support, School Decision-making and Advocacy, and Partnerships. The possible responses were 1=strongly disagree, 2=disagree, 3=agree, and 4=strongly agree. Findings indicated that educators working in the participating Appalachian Kentucky schools perceive a moderate level of family engagement. The communication subscale had the highest mean score (3.42), and family support had the lowest mean score (3.05). There were no significant differences in the level of family engagement between educators with more than five years of experience as compared to educators with less than five years of experience. There were no significant differences in the reported level of family engagement between K-8 schools and schools with 6th to 8th grade students only. The most significant finding of the study is the inverse relationship between higher levels of perceived family engagement and the school's free and reduced lunch percentage to the school's accountability score.

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Introduction

As the nation moves toward the challenges of a new century and a world ringing with change, it cannot afford to leave huge islands of its own population behind, stranded and ignored. Idleness and waste are antipathetic to progress and growth, and, unless the Cumberland Plateau is to remain an anchor dragging behind the rest of America, it – and the rest of the Southern Appalachians – must be rescued while there is yet time.

Harry M. Caudill, Night Comes to the Cumberlands (1963, p. xii)

Rural poverty is difficult to characterize. Rural poverty is geographically widespread and diverse, and is found in locations all over the United States such as the Great Plains, the Mississippi Delta, vast Indian reservations, and throughout the expansive Appalachian region (O'Hare, 2009). A majority of the poorest 250 counties in the country are in rural areas, but the inability of policymakers to point to one representative sample of rural poverty impairs efforts to adequately describe and understand the problems of rural America, or to find cross-cutting functional strategies that work for such a broad area.

In his book, *Night Comes to the Cumberlands*, Caudill (1963) explains how many problems facing the Appalachian region, particularly those in Southeastern Kentucky, can be improved through education of the existing population and retention of its brightest residents. Caudill's book was eye-opening when released, but sadly, educational outcomes in the Appalachian Kentucky region are still worse than state and national averages. For instance, the high school graduation rate in Appalachian Kentucky is

74.8% compared to a state average of 83% and a national average of 86% (ARC, 2015). Bachelor degree completion rates in Appalachian Kentucky are a dismal 13.3% compared to a state average of 21.5%, and a more than double national rate of 28.8%.

Regrettably, these are not the only statistics for the Appalachian Kentucky region that reflect the unique problems and challenges faced by this population. Table 1.1 provides additional data on a range of key indicators such as poverty rates, unemployment rates, and per capita income levels. The Appalachian area in Kentucky has much lower income rates with higher poverty and unemployment rates than the state and the nation.

Table 1.1

Economic Indicator Comparison Chart

	Appalachian Kentucky	Kentucky	United States
Poverty Rates	25.2%	18.8%	15.4%
Unemployment Rates	10.2%	8.7%	8.1%
Per Capita Income	$18,738	$27,874	$37,127

Source: "ARC". Appalachian Regional Commission. (2015). Retrieved June 27, 2015 from http://www.arc.gov/

The statistics support the assertions of Lowery (2014), who in her article about persistent poverty and tough places to live claims that statistically speaking, "Eastern Kentucky — land of storybook hills and drawls — just might be the hardest place to live in the United States" (p. MM13). Changing the trajectory of outcomes for youth must include improved relationships and cooperation in every locale where a child lives,

learns, or plays. A summary of the specific economic indicators for the counties included in this research is shown in Table 1.2.

Table 1.2

County Economic Indicators

County	County Status	Unemployment Rate, 2011-2013	Per Capita Income, 2009-2013	Poverty Rate, 2009–2013	Percent of US Poverty Rate, 2009-2013	County Ranking of 3,110 US Counties
Bell	Distressed	13.7%	$14,728	33.5%	218.3%	3,085
Casey	Distressed	8.7%	$17,415	26.8%	174.6%	2,888
Clark	Transitional	8.6%	$28,604	15.4%	100.0%	1,649
Clay	Distressed	13.3%	$12,997	37.7%	245.1%	3,098
Garrard	At-Risk	9.3%	$20,145	19.1%	124.1%	2,495
Harlan	Distressed	13.9%	$14,873	31.3%	203.8%	3,080
Madison	Transitional	7.1%	$23,677	21.4%	139.6%	2,158
Menifee	Distressed	13.6%	$13,389	27.5%	179.1%	3,079
Montgomery	At-Risk	9.1%	$21,554	25.0%	163.0%	2,658
Wayne	Distressed	12.7%	$15,351	24.3%	157.9%	3,023
Appalachian Kentucky		10.2%	$18,738	25.2%	163.8%	
Appalachian Region		8.2%	$27,979	17.0%	110.8%	
Kentucky		8.7%	$27,874	18.8%	122.5%	
United States		8.1%	$37,127	15.4%	100.0%	

Source: "ARC". Appalachian Regional Commission. (2015). Retrieved June 27, 2015 from http://www.arc.gov/

With the bleak economic conditions in mind, it is imperative to explore the perceptions of educators to determine whether suggested interventions such as family engagement are applied in schools in the Appalachian Kentucky region. Research on student success is frequently focused on increasing rigor (Long, Conger, & Iatarola, 2012; Chajewski, Mattern, & Shaw, 2011) or improving teaching strategies (Mann, 2006; Overbaugh & Lu, 2008). A rigorous academic approach alone is not necessarily effective in rural communities where students are living in dire conditions, and expanded parental involvement may be a key to improving outcomes.

The need for creative and innovative interventions has been recognized by educational leaders and policymakers at the state and national level. For instance, in 2006, then Commissioner of the Kentucky Department of Education, Gene Wilhoit, charged members of the Commissioner's Parents Advisory Council (CPAC) with developing a plan to involve parents in Kentucky schools (Missing Piece, 2007). The objective of the plan was to provide tools for schools to ensure that every student in Kentucky had a family member or other adult advocate who would support the student's academic achievement. In 2007, CPAC published the *Missing Piece of the Proficiency Puzzle: Recommendations for Involving Families and Communities In Improving Student Achievement*, and distributed the results of the work to Kentucky schools.

The *Elementary and Secondary Education Act* (ESEA) provides further support that policymakers expect schools to incorporate family engagement programs. The ESEA is the primary regulation promulgated by the federal government that impacts the way

schools educate K-12 students. The ESEA requires schools to develop and evaluate parental involvement on an annual basis.

The ESEA was enhanced by the No Child Left Behind Act (2002). The No Child Left Behind (NCLB) Act was a bipartisan law that symbolized federal efforts to bolster educational outcomes in the country. The NCLB reauthorized the (ESEA) and strengthened parental involvement expectations for schools. The family engagement component of NCLB was built on four strategies:

1) accountability for results;

2) evidence and research-based programming;

3) augmenting parent involvement; and,

4) amplified control at the local level.

In regards to parent involvement, the NCLB mandated that schools: *1) conduct, with the involvement of parents, an annual evaluation of the content and effectiveness of the parental involvement policy in improving the academic quality of the schools; and 2) use the findings of such evaluation to design strategies for more effective parental involvement (*115 STAT. p. 1501).

In December 2015, the Every Student Succeeds Act (ESSA) was signed into law by President Barak Obama. The ESSA replaces the federal education law known as No Child Left Behind (2002) and reauthorizes the 50-year-old Elementary and Secondary Education Act (ESEA). The ESSA reaffirms the commitment of policymakers to

ensuring meaningful family engagement is occurring in schools. The ESSA requires schools to identify:

i. *barriers to greater participation by parents with particular attention to parents who are economically disadvantaged;*
ii. *the needs of parents and family members to assist with the learning of their children, including engaging with school personnel and teachers; and*
iii. *strategies to support successful school and family interaction (p. S. 1177-68).*

Problem Statement

As a group, Appalachian Kentucky schools are below the state and the nation on key indicators of academic success. Attendance rates, graduation rates, and benchmark scores are all falling short of the state and national averages. Engaging families in the academic success of students is a recommended practice of CPAC and is required for federal funding assistance by the Every Student Succeeds Act (2015).

Multi-generational poverty is deeply embedded within the Appalachian region (Caudill, 1963). In 1964, President Johnson declared a War on Poverty from the front porch of Tom Fletcher's cabin in rural Appalachia. More than 50 years later, and despite regulations such as ESEA, NCLB and ESSA, not much has changed. The statistics provide evidence of the continuing disparities encountered by people in the region. The rural towns in Appalachian Kentucky persistently face high levels of poverty and unemployment, along with low educational attainment. The dismal outlook for economic opportunity is not congruent with the remarkable beauty and vast natural resources in the area.

The isolation and limited access to services mean children who are poor and living in rural areas are likely even more deprived than disadvantaged children residing in urban locations (Malhoit, 2005). As Caudill (1963) is quoted in the opening paragraph of this document, unless the Appalachian Kentucky region is rescued through interventions designed to engage and educate communities, the region will continue to drag behind the rest of the nation.

The Kentucky Department of Education (KDE) publishes school report cards with some information about parent involvement activities. The data requested by KDE for parent engagement activities are:

1. Number of students whose parent/guardian had at least one teacher conference;
2. Number of parents/guardians voting in School Council (SBDM) elections;
3. Number of parents/guardians serving on the School Council (SBDM) or its committees; and
4. Number of volunteer hours.

The information collected and reported as part of the school report card does not provide ample information for the public to gain insight into the level of family engagement in the school. Nor do the data allow for basic analysis of family engagement efforts in a school as compared to other school districts. The data reported do not enable rankings for schools to use in evaluating the success of parent engagement efforts. Nor do the data reported assist schools or researchers in assessing the depth of communication with families.

If Kentucky is to alter the trajectory of the current economic and educational indicators, it is critical to evaluate the perceptions of educators about recommended practices. Engaging families is considered a *missing piece* in Kentucky public school systems, and research indicates school turnaround endeavors are more likely to succeed when families and educators find ways to collaborate (Mapp, 2003). Schools should understand the current perceptions about parent involvement and consider instruments that can support the measurement and comparison of the effectiveness of family engagement efforts.

Purpose of the Study

The purpose of this study is to assess the perceptions of educators working in Appalachian Kentucky schools with middle grade students on family engagement practices in the school. This research contributes to the field of family engagement studies by providing baseline metrics of educator perceptions of the current level of family engagement. The research also augments information pertaining to rural schools, and the various analyses conducted will assist rural schools in understanding possible relational associations among perceived levels of family engagement and student outcomes.

The parent engagement metrics utilized in the study may also be helpful to schools in determining if they are aligned with CPAC's recommendations and offer a means for evaluating current efforts and future interventions to ensure adherence to ESSA. The research provides a measure that schools can use in comparing the family

engagement levels at their school with the levels of family engagement in other schools and districts.

The family engagement survey used for this research provides guidance to schools in interpreting the level of family engagement. The survey includes a rating system to identify whether a school's level of family engagement is insufficient, low, moderate, or high. This baseline knowledge allows schools to consider strategies for increasing their level of family engagement or for considering other missing variables that will enhance student outcomes in the school.

In addition to evaluating the current family engagement perceptions of educators, this research compares those perceptions among educators with longer tenure to those with less than five years of experience. The research also examines differences in the perceived levels of parental involvement in K-8 schools as compared to schools with middle grades (6^{th} to 8^{th}) only. Finally, it analyzes the extent to which the four dimensions of parent engagement found on the survey instrument predict the school accountability score, attendance rates, and behavior events.

Research Questions

The research examines family engagement among Appalachian Kentucky schools with middle grade students and addresses the following questions:

1. What levels of family engagement do educators in Appalachian Kentucky schools with middle grade students report?

2. Are there differences in the reported level of family engagement among educators with five or more years of experience as compared to those with less than five years of experience?
3. Are there differences in the level of reported family engagement between educators working in K-8 schools as compared to educators working in schools with middle grade students (6th to 8th) only?
4. What is the relationship between the indicators of family engagement and free and reduced lunch rates with school accountability scores, attendance rates, and student behavioral incidents?

Theoretical Frameworks

There are four theories related to family engagement in schools that are discussed in this research. The theories are: 1) School, Family, and Community Partnerships Framework (Epstein et al., 2009); 2) Family Stress Theory (McCubbin, 1979; McCubbin, et al., 1980); 3) Ecological Systems Theory (Bronfebrenner, 1979, 1984, 1994); and 4) Social Capital Theory (Hannifan, 2016; Bourdieu, 1986; Coleman, 1988). A common theme with each framework is that a child's family is a central component in development and growth potential. The inclusion of the family in multiple aspects of a child's sphere of influence is likely to increase student success (Epstein & Salinas, 2004; Epstein & Sheldon, 2002; Mapp, 2003). Chapter 2 offers a detailed review of each framework.

Significance of the Study

Improving educational outcomes in Appalachian Kentucky schools is as critical today for the future of the region, as it was more than fifty years ago when Caudill (1963)

released his incisive book about the region. CPAC's guidance, ESEA, NCLB, and now ESSA support family engagement as a strategy for improving a child's academic success. However, there is very little research on family engagement practices in Appalachian Kentucky schools. More importantly, there is very little published data about the levels of family engagement in Appalachian Kentucky public school systems. The Kentucky school report card includes basic information about parent teacher conferences and volunteer hours. However, the school report card does not offer a means of assessing the level or effectiveness of family engagement in the school.

This research contributes to the field of rural family engagement studies by providing baseline metrics of educator perceptions of the current levels of family engagement in Appalachian Kentucky schools with middle grade students. These metrics can be used to help schools increase alignment with CPAC's recommendations. The information may assist schools with understanding if improved family engagement interventions are warranted, or with assessing their level of parent engagement against other schools. The research also took on the ambitious goal of testing the magnitude and direction of linear associations between the levels of reported family engagement and student outcomes.

Definitions

For the purposes of this research the terms *family engagement, parent engagement, family involvement, and parent involvement* are used interchangeably. Family engagement, and all other variations of the term*, mean the parent or guardian of a student and the school employees are* collaborating to *support the development of youth*

across academic and social domains and engaging in two-way, meaningful communication about opportunities occurring at the school and a child's academic outcomes (NCLB, 2002, Section 9109 (32)).

Additional definitions related to this research are outlined in alphabetical order below.

Accountability score. A score used to assess and compare student achievement in Kentucky schools. The score is determined by a model developed by the Kentucky Department of Education (Kentucky Department of Education, 2015).

Appalachian Region. The Appalachian Regional Commission's authorizing legislation defines the Appalachian region "as the 205,000-square-mile region that follows the spine of the Appalachian Mountains from southern New York to northern Mississippi" (ARC, 2015). The region includes the eastern part of Kentucky. Forty-two percent of the population in Appalachia is considered rural as compared to 20 percent of the national population.

Educator. For the purposes of this research, an educator is a certified (teacher) or classified (non-teacher) individual working in an Appalachian Kentucky public school with middle grade students.

Elementary and Secondary Education Act (ESEA). The Elementary and Secondary Education Act of 1965, reauthorized by the No Child Left Behind Act of 2001 and the ESSA, is the main federal law shaping kindergarten through high school education. (United States Department of Education, 2010).

Every Student Succeeds Act (ESSA). Replaced the NCLB Act and reauthorizes the ESEA (United States Department of Education, 2015).

No Child Left Behind Act of 2001 (NCLB). NCLB (2002) is the reauthorization of Elementary and Secondary Education Act. It is a federally mandated bill designed to improve student achievement and change the culture of America's schools.

Rural. A locale in the United States not meeting the criteria for an urban or metro designation based on the United States Department of Agriculture's standards (Rural, 2008).

Student Success. Also referred to as *Student Achievement* in this research. Student success means the student is meeting ACT College Readiness Benchmarks in math, reading, science, and English. Meeting benchmarks is an indication that the student is more likely to obtain passing scores in credit-bearing, entry-level college courses in the subject area. (Clough & Montgomery, 2015).

Limitations of the Study

The study population is comprised of educators working in Appalachian Kentucky schools with middle grade students. Independent and private schools were not invited to participate. There are 54 counties in Kentucky located in the Appalachian region, and educators representing 10 school districts participated. The sample size of 95 educators from the participating districts justifies determining significance with α=.05. The sample meets standard research protocols.

Due to the unique structures in each school district, the sample may not fully gauge whether family engagement is occurring as recommended across all Appalachian Kentucky schools. As a result, making inferences about the perceived level of family engagement for all Appalachian Kentucky schools with middle grade students is an unlikely outcome from this study.

There are 120 counties in Kentucky and 173 school districts, many of which are considered rural. The study does not consider all rural school districts in the state, nor does it evaluate differences in non-rural versus rural areas to consider if there are relationships between the setting of the school and the level of family engagement. Additionally, the research is limited to schools with middle grade students. However, comparisons among elementary, middle, and high school parent engagement programs might be informative.

The study includes a survey provided to educators to assess their perceived level of family engagement in the school. Schools are instructed by the state and federal authorities to engage in meaningful parent engagement activities. Although the probability is low, there is a chance that educators felt pressured to respond favorably about family engagement practices in the school when family engagement is lower. The participants were encouraged to give candid responses, but there is no method to assure the responses provided are the perceived truth of the participant.

The research includes participants working in the school and does not include the family or student population. The perceived level of family engagement of the school employee may be different from the perceptions of a parent or child. Time constraints

and the lack of access to families and youth prevented the researcher from including the perceptions of families and students in the study. However, future studies about parent engagement in rural Appalachian Kentucky schools with middle grade students would be more illuminating if comprised of the perceptions of diverse stakeholders rather than only the perceptions of a homogenous group of educators.

Finally, this study does not factor in confounding variables like student-teacher ratios which may contribute to a school's ability to reach out to families. This study is not designed to determine root causes for low or insufficient levels of family engagement. Rather, the study focuses on the perceptions of the level of family engagement in ten Appalachian Kentucky Schools and then analyzes differences among the school structure, the length of the educator's tenure, and certain socioeconomic indicators.

CHAPTER 2

Literature Review

Introduction

Education is the most powerful weapon we can use to change the world.

~ Nelson Mandela, 2003

The purpose of this study is to assess the perceptions of educators about family engagement practices in the school. The scope of this research is limited to educators working in rural Appalachian Kentucky schools with middle grade students. This research contributes to the field of family engagement studies by providing baseline metrics for the educator perceptions on the current level of family engagement. The research also augments information pertaining to rural schools, and the various analyses conducted will assist rural schools in understanding possible relational associations between perceived levels of family engagement and student outcomes.

More than 50 years ago, the Coleman report endorsed the idea that family factors were a predictor of improved student outcomes for at-risk students (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966). Since the Coleman report, there has been an overwhelming body of research to support that the involvement of parents and families in a child's educational pursuits will improve multiple outcomes (Epstein &Salinas, 2004; Epstein & Sheldon, 2002; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Mapp, 2003), and multiple research studies reflect a positive relationship between

family involvement and a child's academic achievement (Austin, Lemon, & Leer, 2005; Carpenter & Ramirez, 2007; Darling, McWey, Howard, & Olmstead, 2007).

Appalachian Kentucky schools are below the state and the nation on key indicators of academic success. Attendance rates, graduation rates, and benchmark scores all falling short of the state and national averages. Engaging families is a recommended practice, and this study seeks to provide information about the existing level of parent engagement in Appalachian Kentucky schools.

Family Engagement and Academic Achievement

Some studies suggest that academic achievement increases if parents are more involved in school, and a strong positive relationship has been found between the number of times a parent visits the school for various functions and a child's academic performance (Redding, Langdon, Meyer, & Sheley, 2004;Toldson & Lemmons, 2013). Additionally, Galindo, & Sheldon (2012) found that in general, family involvement at school, and a parent's educational expectations were associated with student gains in reading and math achievement during kindergarten.

Byun, Meece, Irvin, and Hutchins (2012) found that even after controlling for several variables such as socio-economic status, the children who thought their parents expected them to attend college, and who had constant discussions with their parents about college, had significantly higher educational aspirations than their counterparts who did not have parents who expected them to attend college. Additionally, the study found positive relationships between teacher educational expectations for students and

students' educational aspirations. High educational attainment raises productivity, increases lifetime earning capacity, reduces poverty risk, and is highly correlated with a variety of measures of well-being (Day & Newburger, 2002; Pascarella & Terenzini, 2005).

Policymakers and researchers continue to emphasize the value of meaningful parental involvement in schools (NCLB, 2002; Henderson & Mapp, 2002; Missing Piece, 2007; NCES, 2007; ESSA, 2015). An upshot of this attention is that the partnership between schools and families, as a means to increase academic success, is on the forefront of many national strategies.

Poverty and Academic Success

The Appalachian Kentucky region has extremely high levels of poverty (ARC, 2015). Using an index-based county economic classification system, the Appalachian Regional Commission identifies the economic status of a county to generate a score. The index score is used to rank each county in the nation. The score is comprised of the three-year average unemployment rate, per capita market income, and poverty rate for the county. County rankings for the target region are shown in Table 1.2. A staggering 97% of the counties in the nation have a better index score than half of the counties included this research.

The low county rankings are a vital consideration when thinking about how to best educate rural Appalachian children. For instance, the isolation in rural areas means children have fewer opportunities to meet with people outside of the family environment.

There is limited access to social networks, and the result is the family has a greater influence on the child's development and growth. Compounding the limited access is the high rate of poverty, which is associated with low levels of educational attainment (Gordon & Cui, 2014; Nikulina, Widom, and Czaja, 2011).

Studies have found that youth who live in more affluent areas during early childhood have higher achievement, specifically in reading, and the exposure to the prosperity is associated with greater gains in math and reading through adolescence (Anderson, Leventhal, & Dupéré, 2014). This finding was supported by Nikulina, et al's., (2011) study, which found a significant relationship between family and neighborhood poverty, and academic achievement in the control group. Also of note is a study by Morrissey, Hutchison, & Winsler (2014), which found that youth with free or reduced lunch prices had much lower grades than students paying the standard price. This is a concern in the Appalachian region where a majority of the students are eligible for free or reduced lunch. The free and reduced lunch percentages for the participating schools may be found in Appendix D. The research reviewed in this section suggests that it is necessary to analyze the economic environment in which children are developing when constructing educational interventions.

Parental Involvement in Middle Schools

The transition for students and parents from elementary to middle school is often quite challenging. Children make gains in social and cognitive growth during this period (Wigfield, Lutz, & Wagner, 2005). At the same time, parents are asked to navigate a school structure that is more complex (Hill & Tyson, 2009). Attending middle school

means the student has more teachers for parents to meet, an advanced curriculum for parents to learn, and added extracurricular activities that can consume a parent's time.

When the pressures of a middle school transition converge, the risk that parents will disengage from participation at school increases. Studies support this assertion and show that as the age of the child increases, parental involvement in school decreases (Green, Walker, Hoover-Dempsey, & Sandler, 2007). It is notable, however, that research suggests that regardless of the grade level (elementary or middle), a personal invitation to participate by a teacher was a predicator of school-based involvement by the parent (Green et al., 2007).

Family Engagement and Student Behavior

The literature also reflects positive relationships between student behaviors and parental involvement. For example, research has found that a child's family relationship will improve attendance rates, reduce absenteeism, and decrease the likelihood of dropping out of school (Carpenter & Ramirez, 2007; Epstein & Sheldon, 2002). Parents who are engaged with their children in the various facets of daily functioning, directly and indirectly, discourage association with peers and friends who have problematic conduct (Simons-Morton & Chen, 2009). This is especially important in low-income areas where research has found that childhood poverty is a predictor of arrests as an adult (Nikulina, Widom, & Czaja, 2011).

Another protective factor for youth is a positive school climate. For example, a study by Brookmeyer et al., (2006) found that the school climate is a protective factor for youth against the negative impact of violent behavior. The research further suggests that

connectedness between the school and family shields youth from the effects of aggressive or disruptive behaviors they may witness. The school culture promotes positive interactions with others and serves as a catalyst to forming healthy relationships.

As discussed, family engagement programs can build relationships between parents and schools, improve the bonds between children and their guardians, impart values and norms such as personal accountability and family relationship management, and empower parents to become advocates and mentors for their child's educational goals. Additionally, the Kentucky Department of Education's (KDE) guide to the Kentucky System of Interventions (2012) reiterates that collaborative conversations with parents or guardians are an effective tool for addressing academic and behavioral needs of students.

Family Engagement and Rural Schools

The needs of Appalachian Kentucky children are immense, and schools are charged with taking advantage of all resources at their disposal to improve student achievement. A youth's family is one such resource. According to the Kentucky Department of Education (2015), every learner benefits academically and behaviorally when a systematic and ongoing assessment of their needs is performed in conjunction with their parent or guardian.

It is not uncommon for rural schools to be a source of entertainment for a community, and rural schools are frequently a nucleus of activity within the community (Witte, 2011). Schools may accommodate outside events, as well as host club meetings, academic functions and a variety of sporting events. Given that schools are heavily

involved in social activities in the community, there is an inherent opportunity for rural schools to integrate school and family associations. Teachers and administrators are called on to serve as coaches or to oversee extra-curricular activities. A result of this connection to the population at large is that school personnel have frequent contact with families and routinely interact with many members of the community.

Despite the natural connection, the National Center for Education Statistics (2007) found only 48% of parents with students attending an assigned public school report satisfaction in their interactions with school personnel. Also of note is a study by Prater, Bermudez, and Owens (1997) which found that even though rural parents are in the school for events more than their urban counterparts, the rural parents are less likely to speak with their child about school and are less likely to interact with teachers. Research suggests that even with small student populations and opportunities to engage with parents, rural schools are not connecting effectively with families.

Obstacles to Family Engagement

Despite the overwhelming evidence that family involvement is integral to student success, effective family engagement programs are often difficult for schools to implement (Christenson & Reschly, 2010). As discussed, rural settings provide unique conditions that influence the possibility of coordinated services between the school and home. However, rural schools also face significant obstacles in administering family engagement programs.

It is challenging to keep rural schools fully staffed. These schools have high turnover rates in teaching staff and a large percentage of inexperienced and inadequately

prepared teachers (Arnold, Newman, Gaddy & Dean, 2005). Moreover, rural schools are geographically isolated, and rural residents are distrustful of outsiders. This distrust leads to fear of others and may prevent parents from working with teachers (Owens, Richerson, Murphy, Jageleweski, & Rossi, 2007).

In addition to distrust and limited resources of the school, another study found that communication, family structure, parent work schedules, and income are commonly quoted barriers to family engagement efforts (Shu-Yuan, Isernhagen, Scherz, & Denner, 2014). Other barriers discussed in the research related to parent perceptions are: 1) parents feeling that their child did not want help from them, and; 2) parents believing the teacher did a better job with academic matters than they could (Brock & Edmunds, 2010).

Kentucky School Accountability Model and Parent Involvement Strategies

The State of Kentucky utilizes three components to determine a school's annual accountability index score (Kentucky Department of Education, 2015). The components of the accountability model are: 1) Next-Generation Instructional Programs and Support; 2) Next-Generation Learners; and 3) Next-Generation Professionals. Collectively, these components are designed to calculate an overall score that is used to compare and rank the school's performance with other schools and to monitor the school's performance within the state's accountability system. Even though parent engagement is recommended by CPAC, and is required by ESEA, NCLB, and ESSA, the level of parental engagement is not part of the school accountability score. Appendix A contains the 2014-2015 accountability scores for the participating schools.

The Kentucky Department of Education (2015) requires school districts to participate in annual improvement efforts referred to as Comprehensive School Improvement Planning (CSIP). During CSIP schools and districts are asked to undertake a collaborative and evidence-based approach to address achievement gaps and improve educational outcomes. An element of the process is the completion of a needs assessment to provide logic for why certain strategies are chosen. Parent engagement is listed as a consideration in the needs assessment guidance, and a link to CPAC's family engagement recommendations is made available on the needs assessment document.

CPAC provided recommendations to the Kentucky Department of Education on six strategies that schools should incorporate to increase parent engagement and improve student outcomes ("Missing Piece", 2007, p. 2). These strategies are aligned with Epstein's et al's., (2009) framework, and with Lemoine and Ballay's (2015) dimensions of family engagement. The strategies are:

1. **Relationship-building**: The school staff builds productive, personal relationships with parents of all their students.

2. **Communications**: Two-way information in many forms flows regularly between school staff and parents about students' academic achievement and individual needs.

3. **Decision-making**: School staff encourages, supports and expects parents to be involved in school improvement decisions and to monitor and assist school improvement.

4. **Advocacy**: For each student, the school staff identifies and supports a parent or another adult who takes personal responsibility for understanding and speaking for each child's learning needs.

5. **Learning Opportunities**: School staff ensures that families have multiple learning opportunities to understand how to support their children's learning.

6. **Community Partnerships**: The school staff engages and partners with community members to plan and implement substantive work to improve student achievement.

The CSIP results are not part of the school report card, and the information is not readily available to the public. There is an annual survey called Teaching, Empowering, Leading, and Learning (TELL) that is administered to all Kentucky educators. The survey results are available to the public (TELL, 2015). Although the survey is constructed to capture educator perceptions on *Community Support and Involvement*, the survey does not produce a measure to understand the level of family engagement within the school.

As a result, there is not a straightforward way to gauge the level of parental engagement in schools, or to easily assess whether CPAC's recommendations for family engagement are followed. Therefore, it is no surprise to find that the Office of Elementary and Secondary Education of the United States Department of Education published a report asserting that satisfying parental involvement regulations is a weak area of compliance by states (U.S. Department of Education, 2008).

Family Engagement and Theoretical Frameworks

In addition to the CPAC's *Missing Piece*, there are four theories related to family engagement in schools that were reviewed for this research. The frameworks are:

1. School, Family, and Community Partnerships Framework (Epstein et al., 2009);

2. Family Stress Theory (McCubbin, 1979; McCubbin, Joy, Cauble, Comeau, Patterson, & Needle, 1980);
3. Ecological Systems Theory (Bronfebrenner, 1979, 1984, 1994); and
4. Social Capital Theory (Hanifan, 1914).

The main theme with each framework is that a child's family is a central component in their development and growth potential. Numerous research studies have found that the inclusion of the family is likely to increase student success (Epstein & Salinas, 2004; Epstein & Sheldon, 2002; Mapp, 2003).

School, Family, and Community Partnerships Framework

Epstein, Sanders, Sheldon, Simon, Salinas, and Jansorn (2009) conducted many years of research to develop a framework of six major types of parental engagement. The framework is known as School, Family, and Community Partnerships, and it may be used by elementary, middle, or high schools to help educators create programs to improve collaborations between families and schools. The framework is represented in Figure 2.1.

According to Epstein et al., (2009), these partnerships are critical to help youth succeed in school and in life. Further, Epstein et al., (2009) postulated that when parents, educators, and students are partners in education, there is an increase in protective factors for children. The protective factors extend through multiple spheres of influence and work to improve outcomes.

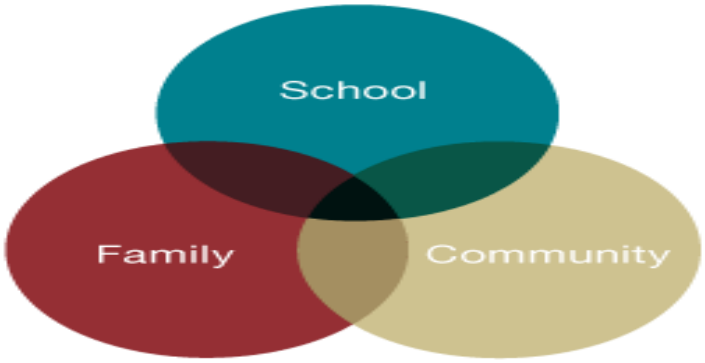

Figure.2.1: Epstein's Overlapping Spheres of Influence

Source: Epstein, J., Sanders, M., Sheldon, S., Simon, B., Salinas, K., Jansorn, N., et al. (2009). School, family, and community partnerships: Your handbook for action. Thousand Oaks, CA: Corwin

The six types of parental involvement (PI) in the framework are outlined below.

- **Type 1: Parenting**. Under this type of PI, schools and communities work to assist families with basic parenting skills. The parents are encouraged to create a home environment that supports children in their learning. The parent is charged with helping the school gain context about the family to improve interactions.
- **Type 2: Communicating**. Communicating involves two-way meaningful engagement initiated by the parent and the school to understand school programs and discuss the student's progress.
- **Type 3: Volunteering.** Volunteering means parents have the opportunity to volunteer at school or within the community for activities pertaining to the student's education. The school must organize and support events where volunteering is possible.
- **Type 4: Learning at Home**. This type of PI means that families should be involved in homework or other extracurricular activities related to a student's learning.

- **Type 5: Decision Making**. Decision making means families have the opportunity to develop into advocates and leaders for their child's education, and actively participate in school decision making processes.
- **Type 6: Collaborating With the Community**. Collaborating with the community means that resources and services available through community agencies should be coordinated among schools, families, and the organization to support a child's learning needs.

Epstein's framework is aligned with CPAC's recommendations for family engagement in Kentucky schools. The framework also has similar elements found in the four dimensions of family engagement examined in this research. Figure 2.2 represents a crosswalk between the family engagement survey instrument designed by Lemoine and Ballay (2015) and Epstein et al's., (2009) six types of PI.

Crosswalk LSU Family Engagement Survey to Epstein's types of PI	
Family Engagement Survey Instrument Dimension	**Epstein's six types of PI**
Communication	Communicating
Family Support	Parenting
School Decision Making and Advocacy	Decision Making
Partnerships	Collaborating With the Community

Figure 2.2: Crosswalk LSU Family Engagement Survey to Epstein's types of PI

Family Stress Theory

After the Great Depression, Reuben Hill developed the theory of family stress (McCubbin, 1979; McCubbin, Joy, Cauble, Comeau, Patterson, & Needle, 1980). Hill's theory was based on research that included observations of families who survived extremely stressful situations as compared to families that did not. Hill examined interactions of families without jobs and who lived in extreme deprivation. Hill considered the factors that contributed to the families' abilities to manage and survive through harsh and stressful times and used the information to formulate his ABCX theory of family stress. Figure 2.3 represents Hill's model of family stress.

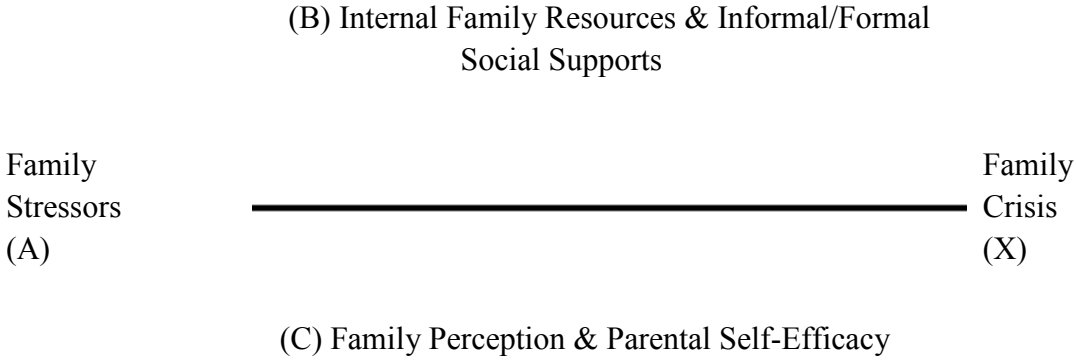

Figure 2.3: Hill's ABCX Theory of Family Stress Model

Source: McCubbin, H. I. (1979). Integrating coping behavior in family stress theory. *Journal of Marriage and the Family*, 237-244

Hill posited that the "B" and "C" variables reduce the impact of the stressors and that a family with stronger social supports, better connectedness, and positive perceptions

about the stressor will have fewer negative consequences to the family relationship than those without "B" and "C" factors. Family Stress Theory has been examined by several other researchers who reiterate the importance of the "B" and "C" variables in managing family stress situations and in improving outcomes for children (Darling, McWey, Howard, & Olmstead, 2007; Rothwell & Han, 2010). Appalachian Kentucky children face high levels of stress daily, and Hill's research provides insight into how positive and supportive family dynamics can diminish the impact of the stressors.

Ecological Systems Theory

A third theory connected to family engagement in schools is the ecological systems theory that was developed by Urie Bronfenbrenner (Bronfebrenner, 1979, 1984, 1994). Bronfenbrenner asserts that a child's development was predicated on the impact of the environment and was not solely based on biological influences. Bronfenbrenner's views on child development were contrary to common viewpoints of the time which were predominantly based on the theory that experience and environment did not influence a child's development.

Bronfenbrenner is not the only researcher whose studies have supported the ecological systems theory as a predictor of a child's success. For instance, Foster and Brooks-Gunn (2013) found that the influence of the neighborhood is associated with victimization at school. Similar to the postulation of Maslow (1943), who suggested that basic needs must be met before achieving a higher level of motivation, a study by Van Horn, Masyn, Smith, Antaramian, Jaki, and Ramey (2009) indicated that a child whose basic needs are not met will score lower on educational outcomes than a child whose

basic needs are met. Also of note is the study by Henry, Cavanagh, & Oetting (2011) that found parental investment is an important mediator of low socio-economic status to educational outcomes. This framework is contextually notable within the Appalachian region due to the significant environmental and economic influences faced by Appalachian youth.

Social Capital Theory

Social capital theory is another framework to support family engagement in Appalachian Kentucky schools. Social capital theory has origins dating back over 100 years. John Dewey (1915), a seminal author on education systems, included discussions of social capital in his publication *The School and Society*.

In 1916, Lyda J. Hanifan built on the work of Dewey by writing an article in which he defined social capital. Hanifan did not believe material possessions to be a factor in social capital. Rather, Hanifan's definition of social capital includes the statement:

> *"I do not refer to real estate, or to personal property or to cold cash, but rather to that in life which tends to make these tangible substances count for most in the daily lives of people, namely, goodwill, fellowship, mutual sympathy and social intercourse among a group of individuals and families who make up a social unit… If he may come into contact with his neighbor, and they with other neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community. The community as a whole will benefit by the cooperation of all its parts, while the individual will find in his associations the advantages of the help, the sympathy, and the fellowship of his neighbors (pp. 130-131).*

Social capital theory was refined over time and incorporated into the works of Bourdieu (1986) and Coleman (1988). Coleman focused on increased human capital resulting from social circles and social connections, but both authors conclude that relationships and social resources available to an individual have a beneficial impact to them. More recently, Putnam (2001; 2015) describes the decline of social capital for youth in his books, *Bowling Alone* and *Our Kids: The American Dream in Crises*.

The common thread of all these frameworks is that a child's success is dependent on external factors that influence the child's actions. According to these frameworks, improving the protective factors, the environment, and the connectedness of influences for a child is likely to have a positive outcome on the student's achievement.

Summary

Despite more than 50 years since the war on poverty and Caudill's (1963) ground-breaking book, the Appalachian region of Kentucky is still experiencing low levels of educational attainment, sizeable amounts of unemployment, and considerable levels of poverty. These factors affect students, and mitigating interventions are critical if students are to transform the status quo.

Educators grapple with approaches for improving student achievement. Parents want their children to be successful, but may not understand how to help their child. Yet, there is little evidence available to understand whether schools are on the right path in properly addressing family engagement recommendations and regulations. The information available to educators and the public provides very little data to assess the current level of parental involvement in Appalachian Kentucky schools.

With evidence indicating that family engagement is a strategy for school reform and turnaround efforts, inquiry into parent engagement programming is warranted to determine the efficacy of existing family engagement programs. Family and school partnerships are related to multiple domains of student well-being, and literature supports better outcomes in academics and behavior when parents are engaged in a meaningful way.

The ESSA mandates parent involvement activities, and places the responsibility on schools to create, implement, and evaluate the effectiveness of their parent engagement programs. As Caudill (1963) is quoted in the opening paragraph of this document, unless the Appalachian area of Kentucky is rescued through interventions designed to engage and educate communities, the region will continue to drag behind the rest of the nation. To change the trajectory of the poor economic and educational indicators, legislators, policymakers, and educators have advanced the notion that parent engagement is a mechanism that can improve educational outcomes in rural schools. Thus, to contribute to the field of parental engagement in rural areas, this research assesses the perceived level of family engagement of educators, and analyzes the relationships between that perception and school outcomes.

CHAPTER 3

Methodology

Context of the Study

This research examined the perceived level of family engagement among educators in Appalachian Kentucky schools with middle grade students. The research evaluated whether there were differences in the perception of parent involvement between educators with more than five years of experience and those with less than five years of experience. The study also considered differences between educators in schools with different grade structures.

The research provides data about educator perceptions of the current level of family engagement that can be used to set baselines for improvement efforts. It also assesses the relationships between four dimensions of parent engagement and free and reduced lunch percentages to the school's accountability index score, behavior events, and attendance rates.

As part of the NCLB and now the ESSA, schools must engage in parental involvement activities and conduct assessments of their efforts. Also of note is that the Kentucky Department of Education and CPAC recommend meaningful parent engagement efforts in schools. The research provides a measure for schools to use in comparing the family engagement levels at their school with the levels of family engagement in other schools and districts.

The current Kentucky school report card contains limited data that can be used for comparative analysis of parent engagement practices. Whereas, the data collection instrument used for this study has a rating system to identify an educator's perception on the level of family engagement in the school. Having a starting point allows schools to consider strategies for increasing their level of family engagement, and for considering other missing variables that will enhance student outcomes in the school.

The remainder of this chapter outlines the procedures and methods used in the study. The chapter is comprised of the following sections:

1. Research questions and hypotheses;
2. Measures;
3. Final sample;
4. Data collection;
5. Data analysis; and
6. Summary.

Research Questions and Hypotheses

The first research question is:

What levels of family engagement do educators in Appalachian Kentucky schools with middle grade students report?

The question was the basis for the study and was analyzed to determine the level of family engagement currently perceived by educators in Appalachian Kentucky schools.

The next two questions examine differences between perceived parent engagement and educator experience, and perceived parent engagement and school structure. The second question is:

> **Are there differences in the reported level of family engagement among educators with five or more years of experience as compared to those with less than five years of experience?**

There is conflicting information about whether an educator's years of experience contribute to improved academic outcomes. For instance, Hanushek, Kain, O'Brien, and Rivkin (2005) linked student achievement to the amount of teaching experience for a population of 4th to 8th grade math students. In contrast, Munoz and Chang (2007) found that the years of teaching experience was not predictive in student academic outcomes for high school reading. This question is intended to detect differences in the responses about parent engagement of educators with more than five years of experience as compared to those with less than five years of educational experience to assess whether there is a relationship between perceptions of family engagement and years of educational experience.

The null hypothesis is that there is no relationship between an educator's years of experience and the perceived level of family engagement. The alternative hypothesis is that there are statistically significant differences in the perceived level of parent involvement in educators with more than five years of experience as compared to educators with less than five years of education experience. For research question #2, the following hypotheses were tested:

$H_0$2.1: There are no significant differences in educators' perceptions of the level of meaningful family engagement based on having five or more years of experience in the education field as compared to having less than five years of experience in the education field.

$H_0$2.2: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Communication subscale based on having five or more years of experience in the education field as compared to having less than five years of experience in the education field.

$H_0$2.3: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Family Support subscale based on having five or more years of experience in the education field as compared to having less than five years of experience in the education field.

$H_0$2.4: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the School Decision Making and Advocacy subscale based on having five or more years of experience in the education field as compared to having less than five years of experience in the education field.

$H_0$2.5: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Partnerships subscale based on having five or more years of experience in the education field as compared to having less than five years of experience in the education field.

The third question is:

> **Are there differences in the level of reported family engagement between educators working in K-8 schools as compared to educators working in schools with middle grade students (6th to 8th) only?**

Research suggests that as a child ages, parental involvement decreases (Green, Walker, Hoover-Dempsey, & Sandler, 2007). The purpose of this question is to

understand possible links between parent engagement at a school and the grade level in the school. The null hypothesis is that there is no relationship between the grade levels served at a school and the perceived level of family engagement. The alternative hypothesis is that there are statistically significant differences in the perceived level of parent involvement in schools with K-8 students as compared to schools with middle grades only. For research question #3, the following hypotheses were tested:

$H_0$3.1: There are no significant differences in educators' perceptions of the level of meaningful family engagement based on the school's grade level structure of having K-8 students as compared to 6th to 8th grades only.

$H_0$3.2: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Communication subscale based on the school's grade level structure of having K-8 students as compared to 6th to 8th grades only.

H_{03}3.3: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Family Support subscale based on the school's grade level structure of having K-8 students as compared to 6th to 8th grades only.

$H_0$3.4: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the School Decision Making and Advocacy subscale based on the school's grade level structure of having K-8 students as compared to 6th to 8th grades only.

$H_0$3.5: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Partnerships subscale based on the school's grade level structure of having K-8 students as compared to 6th to 8th grades only.

The final question considers the relationships between the four dimensions of parent engagement and free and reduced lunch percentages to the school's accountability index score, attendance rates, and student behavior events.

The fourth question is:

> **What is the relationship between the indicators of family engagement and free and reduced lunch rates with school accountability index scores, attendance rates, and student behavioral incidents?**

This question explores whether there are differences in the accountability index score, attendance rates, or behavior incidents at schools with greater levels of reported family engagement as compared to schools with lower levels of reported family engagement. There is a multitude of evidence to support that the involvement of parents and families in a child's educational pursuits will result in positive outcomes (Epstein, 2004; Epstein & Sheldon, 2002; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Mapp, 2003;), and numerous research studies reflect a positive relationship between family involvement and a child's academic achievement (Austin, Lemon, & Leer, 2005; Carpenter & Ramirez, 2007; Darling, McWey, Howard, & Olmstead, 2007).

In addition, the research indicates that high levels of parent engagement positively correlate with attendance (Carpenter & Ramirez, 2007; Epstein & Sheldon, 2002). Research findings also indicate that when parents are engaged with their children, the association with peers and friends who have problematic conduct is reduced (Simons-Morton & Chen, 2009). For research question #4, the following hypotheses were tested;

$H_0$4.1: There are no correlations between the indicators of family engagement and free and reduced lunch rates with the school accountability index score.

$H_0$4.2: There are no correlations between the indicators of family engagement and free and reduced lunch rates with school attendance rates.

$H_0$4.3: There are no correlations between the indicators of family engagement and free and reduced lunch rates with the ratio of student behavior events.

The analysis for all research questions will factor in the direction and magnitude of relationships. In addition to the four research questions outlined in the prior paragraphs, further analyses performed as part of this study examined correlations of family engagement with socioeconomic indicators such as spending per student, ratio of volunteer hours to school membership, free and reduced lunch percentage, county unemployment rate, county poverty rate, and county per capita income. The data provides awareness of correlations that could be explored in other research.

Measures

A survey created by Louisiana State University (LSU) faculty, Lemoine and Ballay, was used in this study to assess the level of family engagement (Family Engagement Survey, 2015). The survey is attached in Appendix B. The survey was initially developed to evaluate the effectiveness of the Louisiana State Improvement grant. The grant was funded by the Office of Special Education and was awarded in 2011. The grant had four focus areas, one of which was family engagement.

Lemoine and Ballay verified that all item reliabilities on the family engagement survey were acceptable. The researchers calculated internal consistency using Cronbach alphas for the total survey scale and as well as for the four subscales. The subscales are:

1) Communication (5 items, α=.81);

2) Family Support (6 items, α=.86);

3) School Decision-making and Advocacy (4 items, α=.83); and

4) Partnerships (6 items, α=.93).

Cronbach's alpha for the total scale is .86.

The survey includes 21 questions that assess overall parent engagement and its four subscales. For the purposes of this research, the subscales are also referred to as dimensions. The survey uses a four point Likert scale with possible responses of 1=strongly disagree; 2=disagree; 3=agree, and; 4=strongly agree. Demographic questions include school name, school district, ethnicity, gender, position in the school, number of years in present occupation, and number of years working in the present school.

The researchers established content validity for the survey during development and construct validity was confirmed during phase I (Lemoine & Ballay, 2015). The survey was modified during the second pilot of the evaluation.

The short-term use of the survey according to Lemoine and Ballay (2015) is for stakeholders to self-assess the level of family engagement within the school, and identify the strengths and weaknesses in family engagement at the school. The long-term use of the survey is for schools to use the results as part of the school's improvement planning process by examining the relationships between the survey results and student success. Additional information concerning the survey instrument is available in Appendix C.

The approach used for this study aids schools that do not have a starting reference point to begin evaluating parent engagement. The design of this study

considers only the perceptions of educators. There are additional LSU surveys that may be used to explore the perceptions of a larger heterogeneous group that includes students and families.

Final Sample

The final sample of the study consisted of educators working in public K-8 or traditional middle schools in the Appalachian region of Kentucky during the 2014-2015 academic school year. In Kentucky, public county school districts with middle grade students are either K-8 schools or schools with 6th to 8th grade students only. There are ten schools and 95 educators (n=95) represented in data. All location sites are considered rural. A list of participating schools with the number of participating educators from the school is shown in Table 3.1. A list of the corresponding school districts is shown in Table 3.2. The frequency of participants from each school and district ranged from 5.3% to 12.6% of the final sample. No one school or district is over- or underrepresented within the sample.

The participants were asked to provide demographic information such as gender, position, and number of years working in the school. Any employee working in the participating school who signed a letter of consent was eligible to complete the survey. A majority of the participants were teachers (84.2%) as shown in Table 3.3. A majority of the participants were female (75.8%) and classified his or her ethnicity as White/European (96.8%) as reflected in Tables 3.4 and 3.5, respectively. The respondent's average number of years in his or her occupation is 11.39 and his or her average number of years at the present school is 6.6 as shown in Table 3.6.

The appendices contain additional key indicators for the counties where the participating schools are located. These indicators were used in portions of the data analysis, and include attendance rates and accountability scores for each county represented.

Table 3.1

Name of Participating School

Name of School		**Frequency**	**Percent**
Valid	Robert D. Campbell Junior High	11	11.6
	Casey County MS	5	5.3
	Clark-Moores MS	11	11.6
	Clay County MS	11	11.6
	Garrard County MS	12	12.6
	Lone Jack School Center	10	10.5
	McNabb MS	10	10.5
	Menifee County MS	9	9.5
	Wallins Elementary	5	5.3
	Wayne County MS	11	11.6
	Total	95	100.0

Table 3.2

Name of School District

Name of District		Frequency	Percent
Valid	Bell County	10	10.5
	Casey County	5	5.3
	Clark County	11	11.6
	Clay County	11	11.6
	Garrard County	12	12.6
	Harlan County	5	5.3
	Madison County	11	11.6
	Menifee County	9	9.5
	Montgomery County	10	10.5
	Wayne County	11	11.6
	Total	95	100.0

Table 3.3

Participant's position in the school

Participant's Position		Frequency	Percent
Valid	Administrator	6	6.3
	Paraprofessional	2	2.1
	Non-Instructional Staff	1	1.1
	Classroom Teacher	80	84.2
	Other	6	6.3
	Total	95	100.0

Table 3.4

Participant's Gender

Gender		Frequency	Percent
Valid	Male	23	24.2
	Female	72	75.8
	Total	95	100.0

Table 3.5

Participant's Ethnicity

Ethnicity		Frequency	Percent
Valid	White European American	92	96.8
	Black African American	1	1.1
	Latino American	1	1.1
	Other	1	1.1
	Total	95	100.0

Table 3.6

Participant's Number of Years of Experience in Education

	N	Minimum	Maximum	Mean	Std. Deviation
Years in Occupation	95	1	31	11.39	7.964
Years at Current School	95	1	25	6.60	6.462

Data Collection

The principals of each participating school gave permission for employees in his or her school to participate in the study. Prior to giving permission each principal received a copy of the survey along with a cover letter describing the study. A copy of the two-page LSU school survey was attached with the request for permission.

The LSU school survey was mailed via the United States Postal Service to the principal of each participating school. The packet included letters of consent for the participants to review and sign, along with a self-addressed, stamped envelope to return the survey and consent form to the researcher. The principal was asked to distribute the materials to school employees. Participants were asked to return the completed survey directly to the researcher with a letter of consent within 30 days.

The survey collected demographic information about the participant but did not contain any personally identifiable information. Upon receipt from the participants, the survey and consent form were given a unique participant identification number and separated by the researcher to ensure the privacy and confidentiality of every respondent. The survey and the letters of consent were stored independently. Results were aggregated and do not include individually identifying responses.

Data Analysis

The researcher entered the data collected from the surveys into the Statistical Package of the Social Sciences (SPSS). A Likert scale is used on the survey with

possible responses of 1=strongly disagree; 2=disagree; 3=agree, and; 4=strongly agree. A survey code book reflecting all data entry inputs is available in Appendix K.

After the information was entered into SPSS, the data analysis process began. Descriptive statistics were used to illustrate demographic details of the sample. Frequencies were used to analyze the data for the first question. The first question is:

What levels of family engagement do educators in Appalachian Kentucky schools with middle grade students report?

For the next two questions, independent samples t-tests were used to assess differences. The questions are:

Are there differences in the reported level of family engagement among educators with five or more years of experience as compared to those with less than five years of experience?

Are there differences in the level of reported family engagement between educators working in K-8 schools as compared to educators working in schools with middle grade students (6th to 8th) only?

For the final question, the data was analyzed for statistical differences among the indicators of family engagement using analysis of variance (ANOVA). Additionally, to test the significance, direction, and magnitude of any linear associations between variables, Pearson Correlation Coefficient (*r*) was used. The final question examined is:

What is the relationship between indicators of family engagement and free and reduced lunch rates with a school's accountability index score, attendance rates, and student behavioral incidents?

The economic indicators gathered during the research phase allowed for added analysis of the relationship between family engagement and socioeconomic indicators. A correlational analysis was performed for economic data.

Summary

The purpose of this research is to evaluate the perceptions of educators working in rural Appalachian Kentucky schools with middle grade students. The research contributes to the field of family engagement studies by providing baseline metrics for the educator perceptions on the current level of family engagement in the targeted area.

The research also examined differences in the reported perceptions of educators serving in K-8 schools as compared to schools with middle grade (6^{th} to 8^{th}) only. The research compared the perceptions of parent engagement among educators with longer tenure to those with less than five years of experience. Additionally, the extent to which the educator's perceptions of the four dimensions of parent engagement and free and lunch percentages predicted the school's accountability index score, attendance rates, and student behavioral incidents was analyzed. An added analysis was an examination of the relationship between family engagement and socioeconomic indicators. The data analysis and the results of this study are presented in Chapter 4.

CHAPTER 4

Data Analysis

Introduction

The purpose of the study was to examine the perceived level of family engagement among educators working in public Appalachian Kentucky schools with middle grade students. The research evaluated whether there were differences in the perception of parent involvement between educators with five or more years of experience and those with less than five years of experience. The study also reviewed differences between educators working in schools with different grade level structures (K-8 vs. 6^{th} to 8^{th} only). Finally, the research assessed the relationships between four dimensions of parent engagement (communication, family support, school decision making and advocacy, and partnerships) and free and reduced lunch percentages to the school's accountability index score, behavior events, and attendance rates.

By examining perceptions of educators, schools will have a better understanding of areas where parental involvement practices may be improved. This study reviewed the perceptions of 95 educators working in Appalachian Kentucky schools with middle grade students. The demographic information for the population is available in Chapter 3 within the *Final Sample* section.

The educators were asked to complete a 21-question survey developed by researchers, Lemoine and Ballay (2010), for the Louisiana State Improvement grant. The researchers established four subscales, or dimensions, of family engagement to assess.

The researchers constructed score interpretation guidance during the survey design process.

Response Rate

The principals of sixteen school districts initially gave permission for their faculty and staff to participate. One hundred ninety-two surveys (12 for each school) with postage-paid envelopes and letters of consent were mailed directly to the attention of the principal. Ninety-eight responses were received from twelve school districts. The Institutional Review Board (IRB) approval was based on a school submitting at least five surveys. Additionally, each survey was required to include a signed letter of consent from the participant.

Of the 98 surveys received, 95 were eligible for use. The other three surveys were not eligible for use because the school did not submit enough surveys to participate or the survey was deemed incomplete. The final sample included 95 educators (n=95) from ten schools located in ten different school districts in the Appalachian Kentucky region.

Research Question #1

What levels of family engagement do educators in Appalachian Kentucky schools with middle grade students report?

To answer this question, the value of each response to the 21 items on the family engagement survey was entered into SPSS. A Likert scale was used on the survey with values of 1=strongly disagree; 2=disagree; 3=agree, and; 4=strongly agree. Using

descriptive statistics, the mean score was determined for each question. The mean family engagement score for all participants of 3.16 is shown in Table 4.1.

Table 4.1

Mean Family Engagement Score

	N	**Mean**	**Std. Deviation**
School Total Survey Score	95	3.16	.167

The survey developers provided guidance to interpret the mean scores. A mean score ranging from 1.00 to 1.50 indicates the school has an insufficient level of meaningful family engagement. A mean score ranging from 1.51 to 2.50 indicates the school has a low level of meaningful family engagement. A mean score ranging from 2.51 to 3.50 indicates the school has a moderate level of meaningful family engagement. A mean score ranging from 3.51 to 4.00 indicates the school has a high level of meaningful family engagement. The results (M=3.16) indicate that educators working in the participating Appalachian Kentucky schools with middle grade students perceive a moderate level of meaningful family engagement.

The mean scores for the family engagement subscales of communication (M=3.42), family support (M=3.05), school decision making and advocacy (M=3.10), and partnerships (M=3.10) were also calculated. The mean scores in descending order for the family engagement subscales are found in Table 4.2. The mean results for the subscales reflect that educators perceive moderate levels of family engagement in each

dimension of family engagement. The lowest ranking dimension is Family Support, and the highest ranking dimension is Communication.

Table 4.2

Family Engagement Subscales means in Descending Order

Subscale	**N**	**Mean**	**Std. Deviation**
School Communication Score	95	3.42	.198
School Partnership Score	95	3.10	.192
School Decision Making Score	95	3.10	.129
School Family Support Score	95	3.05	.203

Communication Subscale

The data analysis for research question #1 also reviewed the frequency of responses for each question within the subscale. Table 4.3 provides a summary of frequencies of each possible response for the Communication subscale questions. In addition to frequencies, mean scores for each question in the Communication subscale were calculated. The mean scores are found in Table 4.4.

A majority (97.9%) of the respondents believe the school uses a variety of methods to communicate with families. Of interest is that 14.8% of the educators do not think that families are offered a variety of ways to give feedback to the school. The mean scores for each question in the Communication subscale indicate participating educators perceive moderate or high levels of family engagement within this dimension.

Table 4.3

Frequencies of responses for Communication Subscale

Communication Subscale Survey Question	Percent Strongly Disagree	Percent Disagree	Percent Agree	Percent Strongly Agree	Total
1. A variety of methods such as but not limited to phone calls, newsletters, or e-mail are used to communicate with families in my school.	0.0%	2.1%	31.6%	66.3%	100.0%
2. Families are informed of academic programs.	0.0%	1.1%	46.3%	52.6%	100.0%
3. Families are informed of their student's progress.	0.0%	0.0%	47.4%	52.6%	100.0%
4. Families are offered a variety of ways to give feedback to the school.	1.1%	13.7%	54.7%	30.5%	100.0%
5. The communication between our school and families supports student learning and growth.	1.1%	9.5%	53.7%	35.8%	100.0%

Table 4.4

Communication Items Descending Means

Communication Subscale Survey Questions	N	Mean	Std. Deviation
1. A variety of methods such as but not limited to phone calls, newsletters, or e-mail are used to communicate with families in my school.	95	3.64	.524
2. Families are informed of their student's progress.	95	3.53	.502
3. Families are informed of academic programs.	95	3.52	.523
4. The communication between our school and families supports student learning and growth.	95	3.24	.664
5. Families are offered a variety of ways to give feedback to the school.	95	3.15	.684

Family Support Subscale

Table 4.5 provides a summary of frequencies of each possible response for the Family Support subscale questions. In addition to frequencies, mean scores were calculated. The mean scores are found in Table 4.6.

A majority (93.6%) of the respondents believe information and resources are made available to all families. However, only forty percent of educators remarked that families are provided opportunities to participate in professional development (M=2.43). Overall, the participants perceived a moderate level of family engagement in this dimension of family engagement.

Table 4.5

Frequencies of responses for Family Support Subscale

Family Support Subscale Survey Question	Percent Strongly Disagree	Percent Disagree	Percent Agree	Percent Strongly Agree	Total
1. Policies and practices exist in our school that recognize diversity among families.	0.0%	10.5%	65.3%	24.2%	100.0%
2. Information and resources are made available to all families.	0.0%	6.3%	54.7%	38.9%	100.0%
3. Learning opportunities are provided to meet the social and cultural needs of families.	0.0%	12.6%	62.1%	25.3%	100.0%
4. Families have access to information to support learning at home such as but not limited to teachers' websites, course descriptions, weekly schedules, or assignments.	1.1%	17.9%	51.6%	29.5%	100.0%
5. Families are provided opportunities to participate in professional development.	8.4%	51.6%	28.4%	11.6%	100.0%
6. The support provided to families by our school supports student learning and growth.	1.1%	8.4%	61.1%	29.5%	100.1%

Table 4.6

Family Support Items Descending Means

Family Support Subscale Survey Question	N	Mean	Std. Deviation
1. Information and resources are made available to all families.	95	3.33	.591
2. The support provided to families by our school supports student learning and growth.	95	3.19	.624
3. Policies and practices exist in our school that recognize diversity among families.	95	3.14	.576
4. Learning opportunities are provided to meet the social and cultural needs of families.	95	3.13	.606
5. Families have access to information to support learning at home such as but not limited to teachers' websites, course descriptions, weekly schedules, or assignments.	95	3.09	.716
6. Families are provided opportunities to participate in professional development.	95	2.43	.808

School Decision Making and Advocacy Subscale

Table 4.7 provides a summary of frequencies of each possible response for the School Decision Making and Advocacy subscale questions. In addition to frequencies, mean scores were calculated. The mean scores are found in Table 4.8.

A majority (93.8%) of the respondents felt that engaging families as partners in the decision making process is supported. Of note is that 21.1% of educators do not perceive that the diversity of families in the school is represented on school improvement

teams or other committees. Overall, the questions within the School Decision Making and Advocacy subscale were perceived by the respondents to have a moderate level of family engagement.

Table 4.7

Frequencies of responses for School Decision Making and Advocacy Subscales

School Decision Making and Advocacy Subscale Survey Questions	Percent Strongly Disagree	Percent Disagree	Percent Agree	Percent Strongly Agree	Total
1. Engaging families as partners in the decision-making process is supported.	0.0%	6.3%	70.5%	23.2%	100.0%
2. The diversity of families in our school is represented on the school improvement team and other committees.	1.1%	20.0%	61.1%	17.9%	100.0%
3. Families are provided with current information regarding decision-making practices as well as their rights.	0.0%	8.4%	66.3%	25.3%	100.0%
4. Our school's engagement with students and families in the decision-making process supports students' learning and growth.	0.0%	12.6%	65.3%	22.1%	100.0%

Table 4.8

School Decision Making and Advocacy Descending Means

School Decision Making and Advocacy Subscale Survey Questions	N	Mean	Std. Deviation
1. Engaging families as partners in the decision-making process is supported.	95	3.17	.519
2. Families are provided with current information regarding decision-making practices as well as their rights.	95	3.17	.558
3. Our school's engagement with students and families in the decision-making process supports students' learning and growth.	95	3.09	.585
4. The diversity of families in our school is represented on the school improvement team and other committees.	95	2.96	.651

Partnerships Subscale

Table 4.9 provides a summary of frequencies of each possible response for the Partnerships subscale questions. In addition to frequencies, mean scores were calculated. The mean scores are found in Table 4.10.

An overwhelming number (94.7%) of the respondents perceive their school to have an inviting and welcoming environment for all families. Yet a surprising 27.4% do not agree their school offers opportunities for families to share their knowledge or experiences with the school. Overall, the respondents perceive a moderate level of family engagement for the Partnership scale.

Table 4.9

Frequencies of responses for Partnerships Subscale

Partnership Subscale Survey Questions	Percent Strongly Disagree	Percent Disagree	Percent Agree	Percent Strongly Agree	Total
1. An inviting and welcoming environment exists for all families.	0.0%	5.3%	34.7%	60.0%	100.0%
2. Families' interests, talents, and availability to support the school are identified.	1.1%	20.0%	55.8%	23.2%	100.0%
3. Opportunities such as but not limited to career day or cultural celebrations are available for families to share their knowledge and experience with the school.	2.1%	25.3%	45.3%	27.4%	100.0%
4. Family members who are unable to be physically present in the school building have opportunities to contribute in other ways.	2.1%	18.9%	58.9%	20.0%	100.0%
5. School personnel are provided resources to create partnerships with all families.	2.1%	14.7%	63.2%	20.0%	100.0%
6. The partnerships our school has with families supports students' learning and growth.	1.1%	12.6%	58.9%	27.4%	100.0%

Table 4.10

Partnership Items Descending Means

Partnership Subscale Survey Questions	N	Mean	Std. Deviation
1. An inviting and welcoming environment exists for all families.	95	3.55	.597
2. The partnerships our school has with families supports students' learning and growth.	95	3.13	.656
3. School personnel are provided resources to create partnerships with all families.	95	3.01	.660
4. Families' interests, talents, and availability to support the school are identified.	95	3.01	.692
5. Opportunities such as but not limited to career day or cultural celebrations are available for families to share their knowledge and experience with the school.	95	2.98	.785
6. Family members who are unable to be physically present in the school building have opportunities to contribute in other ways.	95	2.97	.691

Research Question #2

Are there differences in the reported level of family engagement among educators with five or more years of experience as compared to those with less than five years of experience?

To determine statistically significant differences ($p>.05$) for each null hypothesis in research question #2, an independent samples t-test was conducted to compare the perceived level of family engagement of educators with five or more years of experience to educators with less than five years of educational experience. As described in the null hypotheses for research question #2, the independent samples t-test included an analysis of the overall mean family engagement score plus the mean scores for all subscales. In all the analyses, equal variance is assumed. The results are represented in Tables 4.11 and 4.12.

$H_0$2.1: There are no significant differences in educators' perceptions of the level of meaningful family engagement based on having five or more years of experience in the education field as compared to having less than five years of experience.

Dependent variable (DV) #1 for this hypothesis is the overall perceived level of family engagement. The independent variable (IV) level 1 condition is an educator with less than five years of experience. The IV level 2 condition is an educator five or more years of experience. There was not a significant difference in the perceived level of family engagement for IV level 1 ($M=3.18$, $SD=.47$) and IV level 2 ($M=3.15$, $SD=.45$) conditions; $t(93)=.29$, $p=.78$). As a result, the null hypothesis was accepted.

$H_02.2$: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Communication subscale based on having five or more years of experience in the education field as compared to having less than five years of experience.

Dependent variable (DV) #2 for this hypothesis is the perceived level of family engagement for the Communication subscale. The IV level 1 condition is an educator with less than five years of experience. The IV level 2 is an educator with five or more years of experience. There was not a significant difference in the perceived level of family engagement for IV level 1 (M=3.41, SD=.53) and IV level 2 (M=3.42, SD=.45) conditions; t (93) =.08, p=.93). Therefore, the null hypothesis was accepted.

$H_02.3$: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Family Support subscale based on having five or more years of experience in the education field as compared to having less than five years of experience.

Dependent variable (DV) #3 for this hypothesis is the perceived level of family engagement for the Family Support subscale. The IV level 1 condition is an educator with less than five years of experience. The IV level 2 condition is an educator with five or more years of experience. There was not a significant difference in the perceived level of family engagement for IV level 1 (M=3.12, SD=.50) and IV level 2 (M=3.03, SD=.50) conditions; t (93) =.81, p=.42). Accordingly, the null hypothesis was accepted.

$H_02.4$: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the School Decision Making and Advocacy

subscale based on having five or more years of experience in the education field as compared to having less than five years of experience.

Dependent variable (DV) #4 is the perceived level of family engagement for the School Decision Making and Advocacy subscale. The IV level 1 condition is an educator with less than five years of experience. The IV level 2 condition is an educator with five or more years of experience. There was not a significant difference in the perceived level of family engagement for IV level 1 (M=3.05, SD=.49) and IV level 2 (M=3.11, SD=.50) conditions; t (93) =.56, p=.58). Thus, the null hypothesis was accepted.

$H_0$2.5: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Partnerships subscale based on having five or more years of experience in the education field as compared to having less than five years of experience.

Dependent variable (DV) #3 is the perceived level of family engagement for the Partnership subscale. The IV level 1 condition is an educator with less than five years of experience. The IV level 2 condition is an educator with five or more years of experience. There was not a significant difference in the perceived level of family engagement for IV level 1 (M=3.15, SD=.60) and IV level 2 (M=3.09, SD=.56) conditions; t (93) =.47, p=.64). Therefore, the null hypothesis was accepted.

Table 4.11

Independent Samples t-test Family Engagement by Years of Experience

Dimension	Experience in Education	N	Mean	Std. Deviation	Std. Error Mean
Family Engagement	< 5 Years Experience	25	3.1848	.47486	.09497
	5 or More Years Experience	70	3.1544	.44938	.05371
Communication	< 5 Years Experience	25	3.4080	.52751	.10550
	5 or More Years Experience	70	3.4171	.45268	.05411
Family Support	< 5 Years Experience	25	3.1200	.50351	.10070
	5 or More Years Experience	70	3.0262	.49526	.05919
School Decision Making and Advocacy	< 5 Years Experience	25	3.0500	.49476	.09895
	5 or More Years Experience	70	3.1143	.49761	.05948
Partnerships	< 5 Years Experience	25	3.1533	.60269	.12054
	5 or More Years Experience	70	3.0905	.56158	.06712

Table 4.12

Independent Samples t-test Equality of Means

		t-test for Equality of Means				
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Family Engagement	Equal variances assumed	.286	93	.776	.03034	.10627
	Equal variances not assumed	.278	40.371	.782	.03034	.10911
Communication	Equal variances assumed	-.083	93	.934	-.00914	.11023
	Equal variances not assumed	-.077	37.385	.939	-.00914	.11857
Family Support	Equal variances assumed	.809	93	.420	.09381	.11589
	Equal variances not assumed	.803	41.719	.426	.09381	.11681
School Decision Making and Advocacy	Equal variances assumed	-.555	93	.580	-.06429	.11577
	Equal variances not assumed	-.557	42.542	.581	-.06429	.11545
Partnerships	Equal variances assumed	.471	93	.639	.06286	.13338
	Equal variances not assumed	.456	39.858	.651	.06286	.13797

Research Question #3

Are there differences in the level of reported family engagement between educators working in K-8 schools as compared to educators working in schools with middle grade students (6th to 8th) only?

To determine statistically significant differences ($p>.05$) for each null hypothesis in research question #3, an independent samples t-test was conducted to compare the perceived level of family engagement of educators working in K-8 schools as compared to those working in schools with middle grade students (6^{th} to 8^{th}) only. As described in the null hypotheses for research question #3, the independent samples t-test included an analysis of the overall mean family engagement score plus the mean scores for all subscales. In all the analyses, equal variance is assumed. The results are represented in Tables 4.13 and 4.14.

$H_0$3.1: There are no significant differences in educators' perceptions of the level of meaningful family engagement based on the school's grade level structure of having K-8 students as compared to 6^{th} to 8^{th} grades only.

Dependent variable (DV) #1is the overall perceived level of family engagement. The independent variable (IV) level 1 condition is a school with K-8 grade students. The IV level 2 condition is a school with middle grade students only. There was not a significant difference in the perceived level of family engagement for IV level 1 ($M=3.18$, $SD=.54$) and IV level 2 ($M=3.15$, $SD=.43$) conditions; $t(93) =.28$, $p=.78$). As a result, the null hypothesis was accepted.

$H_0$3.2: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Communication subscale based on the school's grade level structure of having K-8 students as compared to 6th to 8th grades only.

Dependent variable (DV) #2 is the perceived level of family engagement for the Communication subscale. The IV level 1 condition is a school with K-8 grade students. The IV level 2 condition is a school with middle grade students only. There was not a significant difference in the perceived level of family engagement in the Communication subscale for IV level 1 (M=3.46, SD=.54) and IV level 2 (M=3.40, SD=.45) conditions; t (93) =.52, p=.60). Therefore, the null hypothesis was accepted.

$H_0$3.3: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Family Support subscale based on the school's grade level structure of having K-8 students as compared to 6th to 8th grades only.

Dependent variable (DV) #3 is the perceived level of family engagement for the Family Support subscale. The IV level 1 condition is a school with K-8 grade students. The IV level 2 condition is a school with middle grade students only. There was not a significant difference in the perceived level of family engagement in the Family Support subscale for IV level 1 (M=3.14, SD=.55) and IV level 2 (M=3.02, SD=.48) conditions; t (93) =1.00, p=.32). Accordingly, the null hypothesis was accepted.

$H_0$3.4: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the School Decision Making and Advocacy subscale based on the school's grade level structure of having K-8 students as compared to 6^{th} to 8^{th} grades only.

Dependent variable (DV) #4 is the perceived level of family engagement for the School Decision Making and Advocacy subscale. The IV level 1 condition is a school with K-8 grade students. The IV level 2 condition is a school with middle grade students only. There was not a significant difference in the perceived level of family engagement in the IV level 1 (M=3.08, SD=.60) and IV level 2 (M=3.10, SD=.46) conditions; t (93) =-.16, p=.87). The null hypothesis was accepted.

$H_0$3.5: There are no significant differences in educators' perceptions of the level of meaningful family engagement in the Partnerships subscale based on the school's grade level structure of having K-8 students as compared to 6^{th} to 8^{th} grades only.

Dependent variable (DV) #3 is the perceived level of family engagement for the Partnership subscale. The IV level 1 condition is a school with K-8 grade students. The IV level 2 condition is a school with middle grade students only. There was not a significant difference in the perceived level of family engagement in the IV level 1 (M=3.07, SD=.66) and IV level 2 (M=3.12, SD=.54) conditions; t (93) =-.37, p=.71). Therefore, the null hypothesis was accepted.

Table 4.13

Independent Samples t-test Family Engagement by Type of Schools

	Type of School	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Family Engagement	K-8	24	3.1845	.53734	.10968
	Middle Grade	71	3.1549	.42605	.05056
Communication	K-8	24	3.4583	.53885	.10999
	Middle Grade	71	3.4000	.44849	.05323
Family Support	K-8	24	3.1389	.55095	.11246
	Middle Grade	71	3.0211	.47720	.05663
School Decision Making and Advocacy	K-8	24	3.0833	.60193	.12287
	Middle Grade	71	3.1021	.45821	.05438
Partnerships	K-8	24	3.0694	.65739	.13419
	Middle Grade	71	3.1197	.54203	.06433

Table 4.14

Independent Samples t-test for Equality of Means by type of school

Dimension of Family Engagement		t-test for Equality of Means				
		t	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**
Family Engagement	Equal variances assumed	.275	93	.784	.02959	.10769
	Equal variances not assumed	.245	33.32	.808	.02959	.12078
Communication	Equal variances assumed	.523	93	.602	.05833	.11155
	Equal variances not assumed	.477	34.41	.636	.05833	.12219
Family Support	Equal variances assumed	1.005	93	.318	.11776	.11722
	Equal variances not assumed	.935	35.39	.356	.11776	.12592
School Decision Making and Advocacy	Equal variances assumed	-.160	93	.873	-.01878	.11750
	Equal variances not assumed	-.140	32.48	.890	-.01878	.13436

Table 4.14 (Continued)

Dimension of Family Engagement		t-test for Equality of Means				
		t	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**
Partnerships	Equal variances assumed	-.372	93	.711	-.05027	.13523
	Equal variances not assumed	-.338	34.19	.738	-.05027	.14881

Research Question #4

What is the relationship between indicators of family engagement and free and reduced lunch rates with a school's accountability index score, attendance rates, and student behavioral incidents?

The purpose of the final question was to identify whether the dimensions of family engagement along with free and reduced lunch percentages predict a school's accountability index score, attendance rate, or the ratio of student membership to student behavioral events. A multiple linear regression was calculated to predict the dependent variable based on the predicator variables. The dependent variables were school accountability index score, school attendance rate, and the ratio of student membership to school behavior events. The predictor variables in all models were free and reduced

lunch percentage and the four subscales of family support, communication, school decision making and advocacy, and partnerships.

$H_0$4.1: There are no correlations between the indicators of family engagement and free and reduced lunch rates with the school accountability index score.

A multiple linear regression was calculated to predict the school accountability index score based on the indicators of family engagement and free and reduced lunch rates. The model was significant ($F(5,89)=6.642$, $p<.000$), with an R^2 of .272. Essentially, if the five predictors are known, the school's accountability index score can be presumed better than by chance alone. Overall, 27% percent of the variability is the explained by the predictors. The null hypothesis was rejected.

Family support ($p=.023$) and free and reduced lunch percentages ($p=.000$) are the most powerful and significant predictors in the model. Family support has a significant positive relationship, while free and reduced lunch has a significant negative relationship to the school accountability index score. This is critical information for impoverished schools in the Appalachian Kentucky region to understand as this finding indicates that greater levels of engagement within the family support dimension may counter the negative effects of high poverty on student outcomes. The analysis results are found in Table 4.15.

Table 4.15

Regression School Accountability Index Score on Family Engagement Subscales and Free/Reduced Lunch

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.521[a]	.272	.231	9.6932

a. Predictors: (Constant), Free and Reduced Lunch Percentage, Family Support, Communication, School Decision Making and Advocacy, Partnerships

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3120.326	5	624.065	6.642	.000[c]
	Residual	8362.319	89	93.959		
	Total	11482.645	94			

a. Dependent Variable: School Accountability Score

b. Weighted Least Squares Regression - Weighted by Name of School

Coefficients[a,b]

Model		Standardized Coefficients		
		Beta	t	Sig.
1	(Constant)		18.435	.000
	Communication	-.150	-1.059	.293
	Family Support	.473	2.306	.023

Table 4.15 (Continued)

Model	Standardized Coefficients Beta	t	Sig.
School Decision Making and Advocacy	-.097	-.628	.532
Partnerships	-.250	-1.409	.162
Free and Reduced Lunch Percentage	-.510	-5.513	.000

a. Dependent Variable: School Accountability Score

b. Weighted Least Squares Regression - Weighted by Name of School

$H_0$4.2: There are no correlations between the indicators of family engagement and free and reduced lunch rates with school attendance rates.

A multiple linear regression was calculated to predict the school's attendance rates. The model was significant ($F(5,89)=2.6614$, $p<.030$), with an R^2 of .079. Essentially, if the five predictors are known, the school's attendance rate can be estimated better than through chance alone. However, only 8% percent of the variability is the explained by the predictors. The null hypothesis was rejected as relationships were identified by the analysis.

In this model, communication ($p=.002$) is the most powerful and significant predicator. The results of this analysis indicate that improvement in parent engagement in the communication subscale will likely increase attendance rates. Surprisingly, the

model found that free and reduced lunch percentages were not a powerful or significant variable to higher attendance rates. The analysis results are found in Table 4.16.

Table 4.16

Regression Student Attendance on Family Engagement Subscales and Free/Reduced Lunch

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.358[a]	.128	.079	2.4544

a. Predictors: (Constant), Free and Reduced Lunch Percentage, Family Support, Communication, School Decision Making and Advocacy, Partnerships

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	78.726	5	15.745	2.614	.030[c]
	Residual	536.121	89	6.024		
	Total	614.847	94			

a. Dependent Variable: School Attendance Rate

Table 4.16 Continued

b. Weighted Least Squares Regression - Weighted by Name of School

c. Predictors: (Constant), Free and Reduced Lunch Percentage, Family Support, Communication, School Decision Making and Advocacy, Partnerships

Table 4.16 (Continued)

Coefficients[a,b]

Model		Standardized Coefficients		
		Beta	t	Sig.
1	(Constant)		82.229	.000
	Communication	.484	3.116	.002
	Family Support	-.246	-1.098	.275
	School Decision Making and Advocacy	-.046	-.274	.784
	Partnerships	-.024	-.125	.900
	Free and Reduced Lunch Percentage	-.148	-1.459	.148

a. Dependent Variable: School Attendance Rate

b. Weighted Least Squares Regression - Weighted by Name of School

$H_0$4.3: There are no correlations between the indicators of family engagement and free and reduced lunch rates with the ratio of student behavior events.

A multiple linear regression was calculated to predict the school's ratio of behavior events. The model was significant ($F(5,89)=3.074$, $p<.013$), with an R^2 of .099. Essentially, if the five predictors are known, the school's ratio of behavior events can be estimated better than by chance alone. However, only 10% percent of the variability can be explained by the predictors. The null hypothesis was rejected because there is a relationship within the model.

In this model, the free and reduced lunch percentage (p=.001) is the only significant predicator for the ratio of student behavior incidents to student membership. This finding is surprising because literature supports the notion that meaningful family engagement can improve student behavior (Epstein & Sheldon, 2002; Carpenter & Ramirez, 2007). The analysis results are found in Table 4.17.

Table 4.17

Regression Student Behavior Incidents on Family Engagement Subscales and Free/Reduced Lunch

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.384[a]	.147	.099	72.4216

a. Predictors: (Constant), Free and Reduced Lunch Percentage, Family Support, Communication, School Decision Making and Advocacy, Partnerships

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	80606.653	5	16121.331	3.074	.013[c]
	Residual	466794.921	89	5244.887		
	Total	547401.574	94			

a. Dependent Variable: Ratio of Behavior Events to School Membership

b. Weighted Least Squares Regression - Weighted by Name of School

c. Predictors: (Constant), Free and Reduced Lunch Percentage, Family Support, Communication, School Decision Making and Advocacy, Partnerships

Table 4.17 (Continued)

Coefficients[a,b]

Model		Standardized Coefficients	t	Sig.
		Beta		
1	(Constant)		4.907	.000
	Communication	.040	.258	.797
	Family Support	-.283	-1.274	.206
	School Decision Making and Advocacy	.066	.397	.692
	Partnerships	.056	.289	.773
	Free and Reduced Lunch Percentage	-.339	-3.385	.001

a. Dependent Variable: Ratio of Behavior Events to School Membership

b. Weighted Least Squares Regression - Weighted by Name of School

Additional Analysis

Socioeconomic data was collected, which included spending per student, the ratio of volunteer hours to school membership, the free and reduced lunch percentage, county unemployment rates, county poverty rates, and county per capita income. A correlation of indicators of family engagement to socioeconomic indicators was performed. Surprisingly, only the county unemployment rate (p=.030) had a statistically significant correlation with the perceived level of family engagement reported. There is a negative relationship, meaning that as the unemployment rate increased, the reported level of

family engagement decreased. Table 4.18 reflects the correlational information for the socioeconomic indicators examined in this research.

Table 4.18

Correlations of Family Engagement with Socioeconomic Indicators

Correlations		**Family Engagement**
Spending Per Student	Pearson Correlation	-.017
	Sig. (2-tailed)	.871
	N	95
Ratio of Volunteer Hours to School Membership	Pearson Correlation	-.164
	Sig. (2-tailed)	.112
	N	95
Free and Reduced Lunch Percentage	Pearson Correlation	-.121
	Sig. (2-tailed)	.241
	N	95
County Unemployment Rate	Pearson Correlation	-.222
	Sig. (2-tailed)	.030
	N	95
County Poverty Data	Pearson Correlation	-.146
	Sig. (2-tailed)	.159
	N	95
County per Capita Income	Pearson Correlation	.181
	Sig. (2-tailed)	.079
	N	95

CHAPTER 5

Findings, Recommendations, and Conclusions

Introduction

My vision for family engagement is ambitious…I want to have too many parents demanding excellence in their schools. I want all parents to be real partners in education with their children's teachers, from cradle to career. In this partnership, students and parents should feel connected—and teachers should feel supported. When parents demand change and better options for their children, they become the real accountability backstop for the educational system.

—Arne Duncan, U.S. Secretary of Education, May 3, 2010

The purpose of this study is to assess the perceptions of educators about family engagement practices in the school. The scope of the research was limited to educators working in rural Appalachian Kentucky schools with middle grade students. This research contributes to the field of rural family engagement studies by providing baseline metrics for the educator perceptions on the current level of family engagement in Appalachian Kentucky schools with middle grade students. The research also augments information pertaining to rural schools, and the analyses may assist rural schools in understanding relational associations between perceived levels of family engagement and student outcomes.

Multiple theoretical frameworks support the importance of partnerships among a child's spheres of influence. In particular, Epstein et al's., (2009) sphere of influence

model (see Figure 2.1) illustrates a child at the center of school, home, and family intersections. As identified in a study by Brookmeyer, Fanti & Henrich (2006), connectedness between the school and the family mitigates the effects of aggressive or disruptive behaviors witnessed by youth.

Family Stress Theory (McCubbin, 1979; McCubbin, Joy, Cauble, Comeau, Patterson, & Needle, 1980) further bolsters the philosophy that robust communication among a child's influences is valuable. In this model (represented by Figure 2.3), Hill posited that the "B" variables (a family's internal resources and informal and formal social supports) will reduce the impact of external stressors. Essentially, a family with stronger social supports, better connectedness, and positive perceptions about the stressor will have fewer negative consequences than those without "B" factors. This suggests that if a family can work with the school when circumstances outside of the school setting may impact a child's learning, then the child is likely to experience fewer negative academic outcomes related to the external influence.

It should be noted that Ecological Systems Theory and Social Capital Theory are also considerably viable theories related to improving outcomes for a student. Both theories postulate that academic success is related to the confluence of multiple domains that surround a person.

This research augments these frameworks. An overarching finding was the relationship between higher levels of perceived family engagement and the school's free and reduced lunch percentage to the school's accountability score. In this research, greater levels of perceived family engagement offset the negative relationship of poverty

to measures of student success. The target region for this study is one of the most economically depressed and high poverty areas in the nation (Appalachian Regional Commission, 2015). Based on the findings, meaningful parent engagement is an essential component in improving academic outcomes in the rural Appalachian Kentucky region. The remainder of this chapter provides more details concerning the findings, offers recommendations for future research, and discusses policy implications.

Statement of the Problem

Collectively, Appalachian Kentucky schools are below the state and the nation on key educational measures of academic success. Attendance rates, graduation rates, and benchmark scores are all falling short of the state and national averages. Engaging families in the academic success of students is a recommended practice by CPAC, and is required for federal funding assistance by the Every Student Succeeds Act (2015).

Multi-generational poverty is deeply embedded within the Appalachian region (Caudill, 1963). In 1964, President Johnson declared his War on Poverty from the front porch of Tom Fletcher's cabin in rural Appalachia. Yet, more than 50 years later, and despite federal regulations such as ESEA, NCLB, and ESSA, the statistics provide evidence of the continuing disparities faced by people in the region. The rural towns in Appalachian Kentucky persistently face high levels of poverty and unemployment, along with low educational attainment. The dismal economic opportunity contrasts with the stunning beauty and immense resources in the area.

The isolation and limited access to services means children who are poor and living in rural areas are probably even more deprived than disadvantaged children living

in urban areas (Malhoit, 2005). Considering the challenges faced by youth in the region, it is imperative for Appalachian Kentucky schools to assess practices that will improve educational outcomes for children.

Engaging families is considered a *missing piece* in public school systems, and research indicates school turnaround endeavors are more likely to succeed when families and educators find ways to collaborate (Mapp, 2003). Schools must understand the current perceptions about parent involvement and consider instruments that can support the measurement and comparison of the effectiveness of family engagement efforts.

Discussion of the Findings

The study examined four questions pertaining to family engagement practices in rural Appalachian Kentucky schools. The study sought to determine the current level of perceived family engagement in schools, and tested 13 null hypotheses. The study included 95 educators working in ten rural Appalachian Kentucky schools serving middle school students.

The survey instrument was developed by researchers who were assessing the Louisiana State Improvement grant. The survey consisted of 21 questions across four subscales or dimensions of family engagement: communication, family support, school decision making and advocacy, and partnerships. The educators completing the survey were asked to respond using a Likert scale (1=strongly disagree; 2=disagree; 3=agree, and; 4=strongly agree). A mean score (M=3.16) for family engagement was calculated. Additionally, mean scores were calculated for each line item question and for each subscale. Frequency tables with results for all questions are found in Chapter 4.

Research Question #1

The first research question is: *What levels of family engagement do educators in Appalachia Kentucky schools with middle grade students report?*

The results (M=3.16) indicate that the participating educators working in Appalachian Kentucky schools with middle grade students perceive a moderate level of meaningful family engagement. Most of the educators (98.9%) responding to the survey agreed or strongly agreed that families are informed of a student's academic progress. However, nearly 20% of the educators do not agree that families have access to information to support learning at home.

A surprising number (60%) of respondents do not agree that families are provided opportunities to participate in professional development. One of CPAC's recommendations for schools was to build capacity of educators and families through professional development. Specifically, CPAC suggested that legislation to invest in funding for statewide parent leadership programs is needed. CPAC's suggestion is based on the notion that outcomes would improve if parents and community groups were included in interventions such as state level advocacy and policy development, which are often necessary to support a child in reaching proficiency.

Research Question #2

The second research question is: *Are there differences in the reported level of family engagement between educators with five or more years of experience as compared to those with less than five years of experience?*

This question is intended to detect differences in the responses about parent engagement of educators with five or more years of experience as compared to those with less than five years of educational experience to assess whether there is a relationship between perceptions of family engagement and years of educational experience. This variable was tested because there is conflicting research concerning whether an educators' years of experience contribute to improved academic outcomes. For instance, Hanushek, Kain, O'Brien, and Rivkin (2005) linked student achievement to the number of years of teaching experience for a population of 4th to 8th grade math students. Munoz and Chang (2007), on the other hand, found that the years of teaching experience was not predictive in student academic outcomes for high school reading.

The statistical analyses calculated an overall family engagement mean score as well as a mean score in each subscale. A majority of the educators surveyed (70 vs 25) had five or more years of educational experience. The finding for this question indicates that the perceived level of family engagement is not affected by the educator's number of years of experience. This is true of the overall score and within each dimension of family engagement (communication, family support, school decision making and advocacy, and partnerships).

Anecdotally, there is an assumption that an educator with more experience would be more likely to engage families. The research does not support this assumption. A positive outcome of this finding is that separate training or professional development based on years of educational experience may not be warranted in Appalachian Kentucky. One curriculum designed to improve awareness on best practices for family

engagement activities can be developed and delivered to all levels of work experience in the education field.

Based on the findings, participants at all experience levels have a similar perception of family engagement, which is that a moderate amount of family engagement exists. A reasonable next step for educators is to design outreach efforts to increase the current mean score of perceived family engagement. A study discussed in the literature review found that regardless of the grade level (elementary or middle), a personal invitation by a teacher was a predicator of school-based involvement by the parent (Green et al., 2007). This suggests that school personnel can enhance efforts by reaching out directly to families. For instance, within the partnership subscale, more than 20% of educators disagreed or strongly disagreed with the following questions:

- Families' interests, talents, and availability to support the school are identified.
- Opportunities such as but not limited to career day or cultural celebrations are available for families to share their knowledge and experience with the school.
- Family members who are unable to be physically present in the school building have opportunities to contribute in other ways.

The response to these statements shows that there is an opportunity for educators to personally invite families to interact in a meaningful way with the school. A math teacher could invite parents who are quilters, carpenters, cooks, bankers, artists, or medical professionals to share how they use percentages or fractions in everyday activities. Family members who cannot come to school can be asked to create videos to share knowledge. For instance, a veteran or grandparent might be able to provide a

visual account of their world-wide travel experiences or knowledge about key historical events like the Great Depression.

As discussed in Chapter 2, rural parents are at the school more often for events than their urban counterparts (Prater, Bermudez, & Owens, 1997), but rural parents are less likely to interact with teachers. The research suggests that even with small student populations and opportunities to engage with parents, rural schools are not connecting effectively with families. Direct, personal invitations by educators to parents may be a way to transform the relationships discussed the partnership dimension.

Research Question #3

The third question is: *Are there differences in the level of reported family engagement between educators working in K-8 schools as compared to educators working in schools with middle grade students (6th to 8th) only?*

This question is intended to detect differences in the responses about parent engagement between educators working in K-8 schools as compared to educators working in schools with middle grade students only. The purpose of this question was to understand possible links between parent engagement and the grade level in the school. The statistical analysis calculated an overall family engagement mean score as well as a mean score in each subscale. A majority of the educators (71 vs 24) worked in a school with middle grade students only.

The finding for this question indicates that among the educators surveyed, the perceived level of family engagement is not affected by the school structure. This

finding contradicts other research which suggests that as a child ages, parental involvement decreases (Green, Walker, Hoover-Dempsey, & Sandler, 2007). This finding is stable among the overall family engagement score and each family engagement subscale (communication, family support, school decision making and advocacy, and partnerships).

The study did not examine the root cause of this finding, but a possible explanation for this result is related to the unique nature of rural schools, where it is not uncommon the school to be the nucleus of community activities and a source of entertainment within the community (Witte, 2011). In this context, schools in rural areas may find that parents are in the school more frequently than their urban counterparts regardless of the grade level. My own educational experiences in attending a rural school, affirm this concept of the school being a hub of activity. For example, regardless of my grade in school, my parents typically visited the school primarily for athletic events, plays, or other entertainment functions when my siblings or I were participants.

The family support subscale had the lowest overall mean score (M=3.05). This lower mean score is largely attributable to the response to the statement:

Families are provided opportunities to participate in professional development.

An alarming sixty percent of educators disagreed with this statement. The mean score for this statement was 2.43, indicating a low level of family engagement for this item. It should be noted that some schools contend they are offering professional development. Although this was not a qualitative study, one educator stated in the

comments section of the survey that "*While our school makes various efforts and provisions for family communication and inclusion, few families utilize the resources and opportunities. The lack of involvement of families is not from lack of opportunities*." This comment suggests that some schools are striving to engage parents, but that parents are not taking advantage of what is available.

There is a diverging narrative by parents about why they may not participate in school functions. Studies on barriers to family engagement found that communication, family structure, parent work schedules, and income are commonly quoted obstacles to family engagement efforts (Shu-Yuan, Isernhagen, Scherz, & Denner, 2014). Other barriers discussed in the research related to parent perceptions are: 1) parents feeling that their child did not want help from them, and; 2) parents believing the teacher did a better job with academic matters than they could (Brock & Edumunds, 2010).

Regardless of who is right in the competing accounts, the mean score in the family support category demonstrates that there is a need to incorporate professional development into family support activities. The schools must use creative means to reach families. The frequent function of rural schools as a venue for community entertainment is a crucial piece information for rural educators who are interested in improving family engagement to understand. This unique contextual situation in rural schools offers educators a chance to provide meaningful family engagement to families who are visiting the school for other purposes. For instance, information about student financial aid and filing deadlines could be provided during halftime at sporting events. Before the choir performance, the parent advisory group could speak about parent leadership and

advocacy programs. At a band concert, parents could receive an overview of the school report card. Parent volunteers could receive additional training on mentoring or school safety practices as part of the volunteer orientation.

Schools have a responsibility to educate children and not necessarily parents. However, as discussed, parents have an enormous impact on a child's success and it is prudent for schools to ensure that parents have the tools to support their child at all grade levels. This can be accomplished through creative and innovative strategies that will assist parents in learning about interventions to improve student success.

Research Question #4

The fourth research question is: *What is the relationship between the indicators of family engagement and free and reduced lunch rates with school accountability scores, attendance rates, and student behavioral incidents?*

The purpose of the final question was to identify whether the dimensions of family engagement, along with free and reduced lunch percentages, predict a school's accountability index score, attendance rate, or the ratio of student membership to student behavioral events. There is an array of evidence to support that the involvement of parents and families in a child's educational pursuits will improve a child's outcomes in multiple areas (Epstein, 2004; Epstein & Sheldon, 2002; Green, Walker, Hoover-Dempsey, & Sandler, 2007; Mapp, 2003), and numerous research studies reflect a positive relationship between family involvement and a child's academic achievement (Austin, Lemon, & Leer, 2005; Carpenter & Ramirez, 2007; Darling, McWey, Howard, & Olmstead, 2007).

Furthermore, research indicates that high levels of parent engagement positively correlate with attendance (Carpenter & Ramirez, 2007; Epstein & Sheldon, 2002). Behavior is also positively correlated with parental involvement and research supports assertions that when parents are involved, a child's associations with peers or friends who have problematic conduct are reduced (Simons-Morton & Chen, 2009).

The most significant finding for this question was that greater levels of perceived family engagement on the family support subscale counteracted the negative effects of high free and reduced lunch percentages on educational outcomes. Specifically, in terms of the school accountability score, the free and reduced lunch percentage is significant and negatively correlates with the accountability score. This means as free and reduced lunch percentages increase, the school's accountability score decreases. Of note is that an element of the school's accountability score is student academic outcomes as measured by national assessments.

On the other hand, the mean score on the family support subscale is significant and positively correlated with the school accountability score. Put simply, as the mean score on the family support scale increases, so does the accountability score. With this in mind, it is key for educators working in schools with high free and reduced lunch percentages to evaluate family engagement in his or her school, and consider ways to improve family engagement efforts.

The findings related to attendance are significant and positively correlated with the family engagement communication subscale. In this analysis, as the perceived level of communication increased, so did the school's attendance rate. This finding is aligned

with research by Epstein and Sheldon (2002) and Carpenter and Ramirez (2007), which found that high levels of parent engagement positively correlate with attendance. These results are not surprising, especially since 100% of the educators surveyed agreed or strongly agreed that families are informed of their student's overall progress. This response suggests that schools contact the parents if there is an attendance concern and this communication likely positively impacts the attendance rate.

The free and reduced lunch percentage is significant and negatively correlated to student behavior incidents. In contrast, no relationship was found among the family engagement score, or any of the family engagement subscales, and student behavior incidents. This finding was unexpected given the literature supports family engagement as a mechanism to reduce behavior issues. Regardless of this finding, the amalgamated results of the research offer validation for proponents of family engagement programs.

Implications for Practice

Family engagement is required by many regulations (ESEA, NCLB, ESSA), and is recommended by CPAC and numerous research studies for increasing a student's academic gains. The school report card offers the public a plethora of information about schools from scores on national assessments to student demographic information. Furthermore, the Kentucky Department of Education and most school districts offer resources for parents on their websites. However, there is very little information available to the public to measure or compare the school's efforts in engaging parents. A school's CSIP is not published, and the information available on the school report card about parent interactions with the school is limited to:

1. Number of students whose parent/guardian had at least one teacher conference;
2. Number of parents/guardians voting in School Council (SBDM) elections;
3. Number of parents/guardians serving on the School Council (SBDM) or its committees; and
4. Number of volunteer hours.

A primary purpose of this research was to assess the current level of family engagement. The results of the study are that participating educators perceive a moderate level of family engagement, leaving room for enhancement. A goal of the research was also to provide baseline metrics that could be used to evaluate family engagement practices among schools. Due to the sample size and nature of this study, school to school comparisons were not possible. Thus, recommendations for practice based on this research are for policymakers to develop a measurement tool, begin collecting data, and include a school's family engagement rating within the school report card. True improvement and parent engagement efforts are not likely to occur without consistently applied and quantified accountability mechanisms. In the meantime, schools can use the baseline metrics to evaluate their own family engagement performance from year to year.

A second implication for practice relates to the lower ranges of mean scores on family support (M=3.05), partnerships (M=3.10), and school decision making and advocacy (M=3.10) subscales. The communication subscale had the highest mean score of 3.42. The communication subscale statements mainly allude to how the school communicates with the parents. Few of the statements for this dimension describe ways in which the family can engage or communicate with the school. The differences in

mean scores among the subscales indicate that schools must seek to not only to give the family information, but to hear from, learn from, and involve families in a deeper way. Until there is a standard statewide protocol for monitoring family engagement, schools should make use of tools such as CPAC's matrix for engaging families, Epstein's 6 types of parental involvement, or Lemoine and Ballay's family engagement survey to measure and improve on the existing level of family engagement.

Suggestions for Future Research

Family engagement is advocated at the state and national level. Research indicates that parent involvement improves outcomes. Despite this push for meaningful family engagement from multiple stakeholders, the responding educators reported a moderate level of family engagement. As school leaders strive to change the current status of student outcomes, research on existing parental engagement practices should be expanded, measured, compared, and reported to enhance the understanding of family involvement programs. Suggestions for future research are:

1. This study examined the perceptions of a homogenous group of educators. A similar study comparing the responses of students and parents would offer a broader view of existing programs. It would also allow for comparisons among the groups and assist educators in understanding if parents or students have significantly different opinions about the level of family engagement.

2. This study was quantitative in nature. A qualitative study consisting of interviews with educators, students, and parents would contribute to continuous improvement efforts and provide themes that may increase awareness of the root causes for low, insufficient, or moderate levels of family engagement. Interviews

with stakeholders would also help identify the best practices for other schools to implement in cases where high levels of meaningful family engagement are reported.

3. This study was limited to a small number of rural Appalachian Kentucky schools. Repeating the study for additional Appalachian Kentucky schools, rural non-Appalachian schools, or schools in other rural Appalachian states would allow for a comparative analysis that may assist policymakers in attaining a better understanding of the distinctiveness of each rural location and highlight the complexity involved in educating rural children.

4. This study was limited to rural Kentucky schools. A comparison study in metro or urban locations in Kentucky, such as Louisville or Lexington, would be useful for policymakers to see if there are commonalities or divergent perceptions in the state. Understanding differences or similarities within the state will assist lawmakers in designing regulations that best serve the variety of students found within the state rather than policies that may not address the needs of individual counties.

5. The small sample size of educators from each school in this study did not allow for school to school comparisons. A study involving more educators from each school and from school districts would enable researchers to better measure and compare family engagement perceptions across school districts.

Summary

The purpose of this study was to assess the perceptions of educators working in Appalachian Kentucky schools with middle grade students about family engagement practices. The findings clearly indicate that as a group, the participating educators perceive a moderate level of family engagement. A critical finding is the relationship

between higher levels of family engagement and the school's free and reduced lunch percentage, to the school's accountability score. In this study, the perception of family engagement in the family support subscale was significantly and positively associated with a school's accountability score. The score is based partly on student achievement. Because the free and reduced lunch percentage has a significant negative association with a school's accountability score in this study, family support is an important mitigating factor. This finding suggests that students in Appalachian Kentucky schools with high free and lunch percentages, will benefit academically if school and family interactions are strengthened.

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APPENDICES

Appendix A: School Accountability Score

Appendix A: School Accountability Score

School Year	Name of School	County	Overall Accountability Score
2014-2015	Lone Jack School Center	Bell	60.6*
2014-2015	Casey County Middle School	Casey	65.2
2014-2015	Robert D. Campbell Jr. High	Clark	58.8
2014-2015	Clay County Middle School	Clay	60.6
2014-2015	Garrard Middle School	Garrard	63.8
2014-2015	Wallins Elementary	Harlan	66.7*
2014-2015	Clark Moores Middle School	Madison	64.6
2014-2015	Menifee Elementary School	Menifee	61.6*
2014-2015	McNabb Middle School	Montgomery	75.3
2014-2015	Wayne County Middle School	Wayne	62.1

*School has 2 accountability scores and includes elementary and middle grade students. The accountability score was averaged for data analysis purposes.

Source: Kentucky Department of Education (2015). Retrieved November 15, 2015 from http://education.ky.gov/research/Pages/default.aspx

Appendix B: Louisiana State Improvement Grant Survey

Appendix B: Louisiana State Improvement Grant Survey

Overview
Family Engagement Surveys

Family Engagement Surveys are useful tools to assess and monitor family engagement within schools. There are three surveys within this section of the toolkit. The first survey, *Family Engagement Survey for SCHOOLS*, should be administered to faculty and staff members. The results will provide feedback regarding the degree of family engagement from the employees' perspective. The next survey, *Family Engagement Survey for FAMILIES*, should be administered to the students' family members and statements correspond with the survey for schools. The results will provide feedback regarding the degree of family engagement from the families' perspective. The last survey, *Family engagement Survey for STUDENTS*, should be administered to students at appropriate grade levels and the statements correspond with the survey for schools. The results will provide feedback regarding the degree of family engagement from the students' perspective.

The *Family Engagement Survey for FAMILIES* and the *Family Engagement Survey for STUDENTS* are optional tools; however, the statements from all three surveys correspond. The collective results will offer a snapshot of family engagement from a variety of perspectives leading to more informed decision making.

Family Engagement Survey For SCHOOLS

Developed by Melanie Lemoine; Monica K Ballay, Louisiana State University for evaluation of the Louisiana State Improvement Grant

Please indicate your current position by circling the appropriate choice:
Administrator Paraprofessional Non-Instructional Staff Classroom Teacher Grade Level_____ Other _____
How many years have you worked in your present occupation?
How many years have you worked at your present school?

Please indicate your gender by circling the appropriate choice:
Male Female

Please indicate your ethnic background by circling the appropriate choice:
White/European-American Black/African-American Latino-American Native American Asian Other_____

School	District

Family Engagement Survey For SCHOOLS

SD= Strongly Disagree D= Disagree A= Agree SA= Strongly Agree

Section 1 – Communication **Thinking about the communication between the school and families, to what extent do you agree or disagree with each of the following statements?**				
1. A variety of methods such as but not limited to phone calls, newsletters, or e-mail are used to communicate with families in my school.	SD	D	A	SA
2. Families are informed of academic programs.	SD	D	A	SA
3. Families are informed of their student's progress.	SD	D	A	SA
4. Families are offered a variety of ways to give feedback to the school.	SD	D	A	SA
5. The communication between our school and families supports student learning and growth.	SD	D	A	SA

SD= Strongly Disagree D= Disagree A= Agree SA= Strongly Agree

Section 2 – Family Support **Thinking about the support provided to families by the school, to what extent do you agree or disagree with each of the following statements?**				
1. Policies and practices exist in our school that recognize diversity among families.	SD	D	A	SA
2. Information and resources are made available to all families.	SD	D	A	SA
3. Learning opportunities are provided to meet the social and cultural needs of families.	SD	D	A	SA
4. Families have access to information to support learning at home such as but not limited to teachers' websites, course descriptions, weekly schedules, or assignments.	SD	D	A	SA
5. Families are provided opportunities to participate in professional development.	SD	D	A	SA

6. The support provided to families by our school supports student learning and growth.	SD	D	A	SA
Section 3 – School Decision Making and Advocacy **Thinking about the participation of families and students in the decision making at the school, to what extent do you agree or disagree with each of the following statements?**				
1. Engaging families as partners in the decision-making process is supported.	SD	D	A	SA
2. The diversity of families in our school is represented on the school improvement team and other committees.	SD	D	A	SA
3. Families are provided with current information regarding decision-making practices as well as their rights.	SD	D	A	SA
4. Our school's engagement with students and families in the decision-making process supports students' learning and growth.	SD	D	A	SA
Section 4 - Partnerships **Thinking about the personal relationship between the school and families, to what extent do you agree or disagree with each of the following statements?**				
1. An inviting and welcoming environment exists for all families.	SD	D	A	SA
2. Families' interests, talents, and availability to support the school are identified.	SD	D	A	SA
3. Opportunities such as but not limited to career day or cultural celebrations are available for families to share their knowledge and experience with the school.	SD	D	A	SA
4. Family members who are unable to be physically present in the school building have opportunities to contribute in other ways.	SD	D	A	SA
5. School personnel are provided resources to create partnerships with all families.	SD	D	A	SA
6. The partnerships our school has with families supports students' learning and growth.	SD	D	A	SA

Indicators of Family Engagement Survey

Interpretation of Scores

Score Range	Level of Engagement
3.51 – 4.00	High level of family engagement
2.51 – 3.50	Moderate level of family engagement
1.51 – 2.50	Low level of meaningful family engagement
1.00 – 1.50	Insufficient level of meaningful family engagement

I. School Survey

4.00-3.51	3.50-2.51	2.50-1.51	1.50-1.00
School indicates there is a **high** level of meaningful family engagement.	School indicates there is a **moderate** level of meaningful family engagement.	School indicates there is a **low** level of meaningful family engagement.	School indicates there is an **insufficient** level of meaningful family engagement.

Appendix C: Indicators of Family Engagement Scale

Appendix C: Indicators of Family Engagement Scale

The Indicators of Family Engagement Scale

Melanie Lemoine and Monica Ballay

Louisiana State Improvement Grant

Jeffrey Oescher

Southeastern Louisiana University

Paper presented at the annual meeting of the Mid-South Educational Research Association

Baton Rouge, LA

November 5, 2009

Introduction

The Louisiana State Improvement Grant (LaSIG) is federally funded through the Office of Special Education Programs and has four main goals to improve the systems of professional development and service delivery at the state, district, school, and individual levels. A significant part of the project is focused on building relationships between school and families, improving outreach to families, and strengthening the supports provided to families at the school and district level. As a project, LaSIG provides districts with a Family Facilitator whose primary responsibility is to link the needs of families to the schools serving their children. LaSIG also provides professional development to families and works to strengthen the relationships between the schools and the families they serve.

Family Engagement

The project focuses on family engagement because families are an integral part of the school improvement process. Positive outcomes for students are less likely when families are not included at the table where decisions are made. In order for the school improvement process to yield the sought after improvement outcomes, all stakeholders must be present and be an active participant in the decision-making process. According to Henderson, Jacob, et al., (2004) when parents have information, skills, and organizational support, they are getting improved school leadership, improved resources, and higher-quality learning programs all of which are essential for improved achievement.

We also know that family involvement is directly related to positive student outcomes. As illustrated by Henderson and Mapp (2002) “When parents talk to their children about school, expect them to do well, help them plan for college, and make sure that out-of-school activities are constructive, their children do better in school. When schools engage families in ways that are linked to improving learning, students make greater gains. When schools build partnerships with families that respond to their concerns and honor their contributions, they are successful in sustaining connections that are aimed at improving student achievement. And when families and communities organize to hold poorly performing schools accountable, studies suggest that school districts positive changes in policy, practice, and resources.”

Family Engagement Concerns

A significant concern was identified by LaSIG staff. While schools expressed a desire to improve relationships with the families they serve, many were lacking in direction as to where to put resources and supports. It was clear that there was a need for a simple measure for schools to determine what support structures were currently in place and the level at which they are engaging families.

A review of the literature on family engagement assessments resulted in a limited number of tools available. Those that were found appeared too cumbersome and lengthy to meet LaSIG needs. Also, the language used in some was found to be outdated and remained focused on families being physically present on school campus which is contradictory to the idea of supporting and celebrating family engagement in all forms. Thus, the LaSIG staff undertook the task of developing an instrument to meet their needs.

The *Indicators of Family Engagement Scale*

Introduction

Staff members from LaSIG identified experienced practitioners from the field to work with them to begin the process of developing an instrument. The group consisted of LaSIG staff, family members of students in schools served by LaSIG, Title I parent liaisons, LaSIG family facilitators, and district level coordinators. This group met to identify specific concerns, gather resources, and develop a preliminary version of the assessment tool. Additional work continued with LaSIG staff and the assistance of a consultant to streamline the tool and develop the overall format.

The initial survey was organized around four areas: the communication between a school and the families of students in it, the support provided to families by the school, the participation of families and students in the decision making process at the school, and the personal relationships between the school and families. Issues specific to each area were identified, and appropriate item stems were written. Responses to each item were based on the extent to which a subject agreed or disagreed with the item. Responses were made using a four point Likert scale ranging from *strongly disagree* to *strongly agree*. A total of 25 items were written, with the number of items for each area ranging from six to eight.

Pilot Tests

A cover letter was written to explain the purpose of the survey, offer general directions for completing it, relate specific directions for providing feedback on the items or the effectiveness of the survey, and identify demographic information of interest to the LaSIG staff. This and the survey itself were formatting appropriately. The result of these efforts was the *Indicators of Family Engagement Survey - Version 1*, a 25 item self-assessment for schools to use to determine their current level of support provided to families.

The *Indicators of Family Engagement Survey* was piloted in five schools. Approximately 150 teachers responded. Scores for all 25 items and each of the four areas were computed as the mean of all non-missing items. Classical item analyses were used to assess the extent to which each item was functioning as intended. In addition, several respondents included comments related to specific items. Based on this data, two items were added to the survey. One was written to provide insight into the item addressing the formal evaluation of the support provided to families while the other item addressed the formal evaluation of the effectiveness of the partnerships between the school and families.

The revised 27 item survey was piloted again using four schools. Again, approximately 150 teachers responded. Similar procedures as those described above were used to assess each item as well as the total scale and four subscales. On the basis of the empirical data, six items were deleted. Four of these were related to formal evaluation issues within each subscale, two of which were somewhat problematic in the first pilot. The two items added to the survey after the first pilot were no longer needed with the deletion of the evaluation questions; they were deleted. In addition, a single item was moved from one subscale to another, and another item was reworded to more closely reflect the intended content. Technical information related to the final version is presented in the following section of this paper.

Technical Characteristics

General description of the scale. The final version of the survey can be obtained from the authors. It included 21 items distributed across four subscales. Responses to each item are made on the four point Likert scale of agreement described earlier. When considered as a whole, all items represent a measure of perceived family engagement in a school. Hence, the construct represented by this scale is labeled *Family Engagement*. The first subscale, *Communication*, contained five items focused on various aspect of the communication between the school and families (e.g., being informed of academic

programs or student's progress, providing feedback to the school). The second subscale, *Family Support*, contained six items related to the support provided to families by the school (e.g., availability of information, resources, and learning opportunities; policies and practices recognizing diversity). The third subscale, *Decision Making*, contained four items examining the participation of families in the decision making process of the school (e.g., engaging families as partners in the decision making process, representation on school improvement team or other committees). The final subscale, *Partnerships*, contained six items addressing the personal relationships between the school and families (e.g., an inviting and welcoming environment, opportunities to share knowledge and experience).

Technical characteristics. Several analyses were used to establish the extent to which items functioned as intended, content and construct validity could be established, and reliability was estimated at acceptable levels. Each of these is described in the following paragraphs.

Item Functionality. Each of the 21 items was written to assess an important aspect of family engagement. If an item contributes effectively to the measurement process, the correlation between responses to it and the total scale scores should be moderate in strength (i.e., $r > 0.30$) and positive in direction. This statistic, known as an item reliability, was used to assess the functionality of each item in the context of the total scale and each subscale. The data from these analyses is presented in Table 1. Based on this information, all coefficients across all scales functioned well.

Table 1

Item Reliabilities

Scale	Minimum	Maximum	Median
Communication	.46	.77	.67
Family Support	.78	.85	.81
Decision Making	.64	.78	.74
Partnerships	.77	.87	.85
Engagement	.62	.84	.76

Content and construct validity. Content validity was established during the development of the specific items within each of the subscales based on the expertise of those involved in this process. The more important validity evidence for a scale of this nature, construct validity, was empirically investigated using a confirmatory principal component factor analysis with varimax rotation. This particular procedure provides empirical support for the unique contribution of each of the four underlying dimensions of family engagement posited by the researchers. The results from this analysis indicated all items loaded on the respective subscales as expected with a single exception. The problematic item loaded on the *Decision Making* subscale rather than the *Family Support* subscale as originally presented. An examination of the content for that item (i.e., opportunities to participate in professional development) suggests placement on the Decision Making subscale is reasonable.

Reliability. Scale and subscale reliability was estimated using Cronbach's alpha. Coefficients of .86, .81, .86, .83, and .93 were calculated for the *Communication*, *Family Support*, *Decision Making*, and *Partnerships* subscales and the *Family Engagement* scale respectively. All of these are well within acceptable limits.

Scoring and score interpretation

Scoring for the total scale and subscales remained the same as described in an earlier paragraph. To be scored, a subject must respond to at least 75% of the items on the entire scale or any subscale. In the final pilot, several subjects were dropped form the data set for excessive missing responses using these criteria. Total scale scores and subscale scores were computed as the mean of all non-missing item responses. Thus, the scores are reported on the same four point scale as subject responses.

Interpreting scores from a Likert scale can be quite complicated. For example, a four point Likert scale interpreted as a range of 1.00 across all response produces only three categories (i.e., 1.00-1.99, 2.00-2.99, 3.00-4.00). This interpretation is inconsistent with that of subject's responses. An accepted alternative is to use the score ranges and resulting categories presented in Table 2. The narrative descriptors associated with each score range were developed by the staff at LaSIG to reflect a formative evaluation of subjects' responses.

Appendix C (Continued)

Table 2

Score Interpretation

Score Range	Level of Score	Level of Engagement
1.00 - 1.50	Low	There is an *insufficient* level of meaningful family engagement.
1.51 - 2.50	Somewhat low	There is a *low* level of meaningful family engagement.
2.51 - 3.50	Somewhat high	There is a *moderate* level of meaningful family engagement.
3.51 - 4.00	High	There is a *high* level of meaningful family engagement.

Use of the *Indicators of Family Engagement Scale*

The original intent of LaSIG staff was to develop an assessment tool that could be used to estimate the level of family engagement in the schools in which they worked. The material presented in this paper indicates this has been accomplished. The more important issue, however, is the use of the instrument and the extent to which schools find it beneficial.

Currently, the *Indicators of Family Engagement Survey* is being rolled out to all 14 districts currently participating in LaSIG. This includes over 200 schools. The survey is administered to all administration and faculty, including some non-instructional staff. Results will be discussed during school improvement team meetings facilitated by LaSIG Site Liaisons. Assessment of the results will include an analysis of a school's strengths and areas of need. This type of analysis will give schools the direction needed to determine what resources they need to effectively support families. Schools will be able to make a decision about services they provide to families based on their areas of strength and also be able to determine what needs they have based on weaknesses.

Activities that result for schools scoring high will differ from schools with lower scores. LaSIG staff will work closely with these schools to help them identify next steps based on their survey results. Identified initiatives for higher performing schools and lower performing school will be more closely matched based on their identified needs.

Furthermore, LaSIG staff plans to do a deeper analysis of survey results and student outcomes. As indicated in the literature, schools with better relationships with families have better outcomes for students. If what we know about this correlation is correct, there should be a link between schools scoring higher on this survey and positive student outcomes. The analysis will include academic outcomes, School Performance Scores, placement of students with disabilities in the general educational setting, suspension and expulsion rates, and student attendance rates.

The *Indicators of Family Engagement Survey* includes a companion document that schools can access for resources and ideas for family engagement. There is also a matched survey for families and students that can be administered to obtain feedback from three sources. The surveys and companion document is available for use and has been shared with the Louisiana Department of Education and with other states.

Appendix D: School Free and Reduced Lunch Percentage

Appendix D: School Free and Reduced Lunch Percentage

School Name	2014-2015 Free and Reduced Lunch Percentage
Lone Jack School Center	81.2%
Casey County Middle School	69.8%
Robert D. Campbell Jr. High	60.3%
Clay County Middle School	74.4%
Garrard Middle School	55.6%
Wallins Elementary School	81.3%
Clark Moores Middle School	56.9%
Menifee Elementary School	78.7%
McNabb Middle School	60.8%
Wayne County Middle School	75.8%

Source: Kentucky Department of Education (2015). Retrieved November 15, 2015 from http://education.ky.gov/research/Pages/default.aspx

Appendix E: EKU IRB Approval Letter

Appendix E: EKU IRB Approval Letter

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NOTICE OF IRB APPROVAL
Protocol Number: 16-120
Institutional Review Board IRB00002836, DHHS FWA00003332
Review Type: ☐Full ☒Expedited
Approval Type: ☒New ☐Extension of Time ☐Revision ☐Continuing Review

Principal Investigator: **Penelope Jordan** **(Faculty Advisor: Dr. Charles Hausman)**

Project Title: **An Evaluation of Educator Perceptions of the Level of Family Engagement in Appalachia Kentucky Middle Schools**

Approval Date: **2/17/16** Expiration Date: **9/30/16**

Approved by: **Dr. Ida Slusher, IRB Chair**

This document confirms that the Institutional Review Board (IRB) has approved the above referenced research project as outlined in the application submitted for IRB review with an immediate effective date.

Principal Investigator Responsibilities: It is the responsibility of the principal investigator to ensure that all investigators and staff associated with this study meet the training requirements for conducting research involving human subjects, follow the approved protocol, use only the approved forms, keep appropriate research records, and comply with applicable University policies and state and federal regulations.

Consent Forms: All subjects must receive a copy of the consent form as approved with the EKU IRB approval stamp. Copies of the signed consent forms must be kept on file unless a waiver has been granted by the IRB.

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

Research Records: Accurate and detailed research records must be maintained for a minimum of three years following the completion of the research and are subject to audit.

Changes to Approved Research Protocol: If changes to the approved research protocol become necessary, a description of those changes must be submitted for IRB review and approval prior to implementation. Some changes may be approved by expedited review while others may require full IRB review. Changes include, but are not limited to, those involving study personnel, consent forms, subjects, and procedures.

Annual IRB Continuing Review: This approval is valid through the expiration date noted above and is subject to continuing IRB review on an annual basis for as long as the study is active. It is the responsibility of the principal investigator to submit the annual continuing review request and receive approval prior to the anniversary date of the approval. Continuing reviews may be used to continue a project for up to three years from the original approval date, after which time a new application must be filed for IRB review and approval.

Final Report: Within 30 days from the expiration of the project, a final report must be filed with the IRB. A copy of the research results or an abstract from a resulting publication or presentation must be attached. If copies of significant new findings are provided to the research subjects, a copy must be also be provided to the IRB with the final report.

Other Provisions of Approval, if applicable: None

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

Kentucky

Appendix F: Informed Consent with IRB Approval Stamp

Appendix F: Informed Consent with IRB Approval Stamp

Title of Study: An Evaluation of Educator Perceptions of the Level of Family Engagement in Appalachia Kentucky Middle Schools

Informed Consent Introduction
You are invited to participate in a study of family engagement in Appalachia Kentucky public schools with 6th, 7th, or 8th grade students. You were selected as a possible participant because you are 18 years of age or older and an educator or administrator in a Appalachian Kentucky. Please read this form before agreeing to be in this study. This study is being conducted by Penelope Jordan, Eastern Kentucky University doctoral student, and Dr. Charles Hausman.

Background Information
The current study will investigate the perceived level of family engagement in schools with 6th, 7th, and 8th grade students in the Appalachia Kentucky region and will evaluate the levels of family engagement among schools in the Appalachia Kentucky region.

Procedures
If you agree to participate in this study, please complete the attached survey and mail the completed survey with this signed letter of consent in the postage-paid envelope provided no later than March 31, 2016. Please fully respond to each section and be forthright in your answers. Completion of this study is estimated to take approximately 15-20 minutes.

Risks and Benefits of Being in the Study
While unlikely, it is possible that you may feel discomfort while completing the survey or reach conclusions about family engagement in your school that are not conclusive. You are free to discontinue your participation at any time during the study. Participation in this study may provide your district with additional information about levels of family engagement in the region and how they compare to other Appalachian Kentucky schools.

Confidentiality
The records of this study will be kept private. Any report or paper published will not include any personally identifiable information. Research records will be kept in a locked file; only the research team will have access to the records. Records will be kept for at least three years after completion of the study, after which records may be destroyed at the discretion of the researcher.

Voluntary Nature of the Study
Participation in this study is voluntary and you are not required to complete the survey.

Contacts and Questions
The student researcher conducting this study is Penny Jordan. If you have questions about participating in this study, you may email the researcher at Penelope_jordan@mymail.eku.edu or pennyjordan588@hotmail.com. Questions related to the integrity of the research or the rights of human subjects, should be directed to Dr. Charles Hausman at 859-622-8450.

Statement of Consent
I have read the above information. I consent to participate in the study.

_____ Signature
_____ Printed Name

Appendix G: Permission from Developers to use Family Engagement Survey

Appendix G: Permission from Developers to use Family Engagement Survey

-----Original Message-----
From: Monica K Ballay [mailto:mballay@lsu.edu]
Sent: Wednesday, October 14, 2015 6:02 AM
To: Penny A. Jordan
Subject: Re: Request to use school survey

Good Morning,
  Yes, you may use the family engagement survey. Good Luck with you dissertation.

Thanks,
Monica Ballay

_____
From: Penny A. Jordan <Penny_Jordan@berea.edu>
Sent: Monday, October 12, 2015 8:58 PM
To: Monica K Ballay
Subject: RE: Request to use school survey

Hello, Monica,

The scope for my independent study course is changing. I will not need to send the survey to our schools as part of my evaluation of Partners for Education family engagement work or to meet my course requirement.

However, after a discussion with my dissertation chair, I am interested in using the survey for my dissertation research. I am writing to ask permission to use the survey in this capacity and for the dissertation purpose as long as I still cite you as developer of the survey and forward any findings. The proposed title is An Examination of Family Engagement Perceptions of Educators in Appalachia Kentucky Schools.

Research shows that there is a relationship between high levels of family engagement and student success. Based on what I have found for rural areas, there appears to be under involvement of families in Appalachia Kentucky and there is limited research on family engagement in rural areas. This study would add to the literature by examining educator perceptions about family engagement in rural areas. I am firming up the research questions, but I expect I will be looking at differences among the schools and the relationships between levels of family engagement as perceived by the schools and various school report card information such as attendance, graduation rates, and/or benchmark scoring on applicable achievement tests. My chair and I are working on this.

Thanks for your consideration and please let me know if you need any other information to approve this request,

Penny

_____

From: Monica K Ballay <mballay@lsu.edu>
Sent: Wednesday, August 26, 2015 3:07 PM
To: Penny A. Jordan
Subject: RE: Request to use school survey

Good Afternoon,
Nice to hear from you all and wanting to utilize our family engagement surveys. We do grant you all permission to use the surveys. We only ask that you cite us as the developer of the survey. We would be interested in a summary of the results you all get.

Best of Luck!
Monica Ballay
mballay@lsu.edu<mailto:mballay@lsu.edu>
225-329-6900

From: Penny A. Jordan [mailto:Penny_Jordan@berea.edu]
Sent: Thursday, August 20, 2015 9:44 AM
To: Melanie Lemoine; Monica K Ballay
Subject: Request to use school survey

Hello, Melanie and Monica,

I work for Partners for Education at Berea College in Kentucky. We are a non-profit college and our department administers college access programs in several high-poverty counties in eastern Kentucky. Here is a link to our department: http://partners.berea.edu/

I am also doctoral student at Eastern Kentucky University. I found your presentation *Indicators of Family Engagement* during my research. I am writing to request permission to use the survey from this study for an independent study assignment I have this fall. The proposed title of my project is An Evaluation of Family Engagement Perceptions in Appalachia Kentucky Schools.

The study fulfills a course requirement, but also assists my department with better understanding the perceptions of our school partners. There is no intention to publish the results or financially gain through use of the study.

Please let me know if you grant permission to me to use the survey and if so, under what conditions permission is granted.

Thank you for your consideration,

Penny Jordan
Partners for Education
Finance and Operations Director
Berea College

Appendix H: 2015-2016 Attendance Rates of Participating Schools

Appendix H: 2015-2016 Attendance Rates of Participating Schools

School Name	Attendance Rate
Lone Jack School Center	93.0%
Casey County Middle School	94.6%
Robert D. Campbell Jr. High	94.4%
Clay County Middle School	91.3%
Garrard Middle School	94.7%
Wallins Elementary School	93.3%
Clark Moores Middle School	94.7%
Menifee Elementary School	95.0%
McNabb Middle School	92.5%
Wayne County Middle School	93.7%
State of Kentucky	94.5%

Source: Kentucky Department of Education (2015). Retrieved November 15, 2015 from http://education.ky.gov/research/Pages/default.aspx

Appendix I: Cover Letter Sent with Surveys

Appendix I: Cover Letter Sent with Surveys

Date:

Dear Principal:

Your school agreed to participate in a survey about the levels of family engagement in Appalachian Kentucky schools with 6th, 7th, or 8th grade students. The results of this survey will be used to examine administrator and educator perceptions about family engagement and compare responses among Appalachian Kentucky schools. Participation in this study may provide your district with additional information about levels of family engagement in your school and how they compare to other Appalachian Kentucky schools.

An informed consent form is included. Participants must attach a letter of consent to their survey and return both documents in the postage-paid envelope. The documents will be stored at Eastern Kentucky University for up to three (3) years. Survey responses are anonymous and the letters of consent will be maintained in a separate filing system. No personally identifying information is collected on the survey.

Schools with at least 10 surveys returned by March 31, 2016, will be entered into a drawing to win a $250 gift card to Walmart. Schools with less than 5 responses will not be included in the study.

Please take a few minutes to share this information with your staff and encourage them to answer each question on the survey as completely and accurately as possible. Responses will be processed confidentially and only group data will be made available. If you have any questions regarding the survey, please contact Penny Jordan at XXX-XXX-XXXX or by email at Penelope_jordan@mymail.eku.edu.

Thank you for your time and attention.

Sincerely,

Penny Jordan

Appendix J: Sample Introduction email to Principals

Appendix J: Sample Introduction email to Principals

Dear Principal;

I am a doctoral student at Eastern Kentucky University in the Educational Leadership and Policy Studies program. I am writing to request permission to include teaching faculty from **Name of School** in a study population. **As part of the Institutional Review Board (IRB) approval process for conducting research in a school, I am required to obtain permission from the school principal before beginning the research**.

The research I am conducting will examine the levels of family engagement in schools. The title of study is *An Evaluation of Educator Perceptions of the Level of Family Engagement in Appalachian Kentucky Middle Schools.* The study consists of a brief survey (attached here). This survey was developed by Louisiana State University (LSU) and is estimated to take less than 15 minutes for faculty to complete.

Once permission is granted by you and upon IRB approval, I will mail a packet to you that includes letters of consent for the participants, postage-paid envelopes, and copies of the survey. Schools electing to participate and that return at least 10 surveys will be entered into a drawing for a $250 gift card to Walmart to purchase educational supplies for their school.

Feel free to contact me by email at Penelope_jordan@mymail.eku.edu or by phone at XXX-XXX-XXXX, if you need additional information to grant permission to conduct the research.

Please reply to this email by **Friday, February 12, 2016**, to confirm to the institutional review board that you grant permission for me to conduct the research titled *An Evaluation of Educator Perceptions of the Level of Family Engagement in Appalachian Kentucky Middle Schools* at your school. The approval also serves as assurance that the school complies with requirements of the Family Educational Rights and Privacy Act (FERPA) and the Protection of Pupil Rights Amendment (PPRA) and will ensure that these requirements are followed in the course of this research.

Thank you for your time and consideration,

Penelope Jordan

Appendix K: SPSS Data Analysis Code Book

Appendix K: SPSS Data Analysis Code Book

Title of Study: An Evaluation of Educator Perceptions of the Level of Family Engagement in Appalachian Kentucky Schools with Middle Grade Students

Researcher: Penelope Jordan

Survey Demographics

Participant Number

Enter Assigned Number from Survey (Nominal)

Question D.1: Indicate your current position

Response (Nominal)	Code Entry
Administrator	1
Paraprofessional	2
Non-Instructional Staff	3
Classroom Teacher	4
Other	5

QD.2 How many years have you worked in your present occupations?

Enter Scale data

QD.3 - How many years have you worked at your present school?

Enter Scale data

QD.4 - Indicate your Gender (Nominal)

Male	1
Female	2

Appendix K (Continued)

QD.5 -Indicate your ethnic background (Nominal)

White/European American	1
Black/African-American	2
Latino-American	3
Native American	4
Asian	5
Other	6

QD.6 - Indicate your school (Nominal)

Robert D. Campbell Junior High	1
Casey County Middle School	2
Clark Moores Middle School	3
Clay County Middle School	4
Garrard County Middle	5
Lone Jack School Center	6
McNabb Middle School	7
Menifee Elementary	8
Wallins Elementary	9
Wayne County Middle School	10

QD.7 - Indicate your District (county) (Nominal)

Bell	1
Casey	2
Clark	3
Clay	4
Garrard	5
Harlan	6
Madison	7
Menifee	8
Montgomery	9
Wayne	10

Appendix K (Continued)

QD.8 - Type of School (Nominal)

K-8	1
Middle School	2

(Ordinal)

SD-Strongly Disagree	1
D-Disagree	2
A-Agree	3
SA-Strongly Agree	4

Survey Section 1 - Communication

Q1.1. A variety of methods such as but not limited to phone calls, newsletters, or e-mail are used to communicate with families in my school.

Q1.2. Families are informed of academic programs.

Q1.3. Families are informed of their student's progress.

Q1.4. Families are offered a variety of ways to give feedback to the school.

Q1.5. The communication between our school and families supports student learning and growth.

Survey Section 2 - Family Support

Q2.1. Policies and practices exist in our school that recognize diversity among families.

Q2.2. Information and resources are made available to all families.

Q2.3. Learning opportunities are provided to meet the social and cultural needs of families.

Q2.4. Families have access to information to support learning at home such as but not limited to teachers' websites, course descriptions, weekly schedules, or assignments.

Q2.5. Families are provided opportunities to participate in professional development.

Q2.6. The support provided to families by our school supports student learning and growth.

Appendix K (Continued)

Survey Section 3 - School Decision Making and Advocacy

Q3.1. Engaging families as partners in the decision-making process is supported.
Q3.2. The diversity of families in our school is represented on the school improvement team and other committees.
Q3.3. Families are provided with current information regarding decision-making practices as well as their rights.

Q3.4. Our school's engagement with students and families in the decision-making process supports students' learning and growth.

Survey Section 4 - Partnerships

Q4.1. An inviting and welcoming environment exists for all families.
Q4.2. Families' interests, talents, and availability to support the school are identified.

Q4.3. Opportunities such as but not limited to career day or cultural celebrations are available for families to share their knowledge and experience with the school.

Q4.4. Family members who are unable to be physically present in the school building have opportunities to contribute in other ways.
Q4.5. School personnel are provided resources to create partnerships with all families.
Q4.6. The partnerships our school has with families supports students' learning and growth.

Other Variable Research Data

V.1 -County Status (Nominal)

At-Risk	1
Distressed	2
Transitional	3

Appendix K (Continued)

V.2 -LSU School Family Engagement Ranking Calculated by Survey (Ordinal)

Insufficient	1
Low	2
Moderate	3
High	4

V.3 -LSU School Family Engagement Communication Subscale Score (Ordinal)

Insufficient	1
Low	2
Moderate	3
High	4

V.4 -LSU School Family Engagement Survey Family Support Subscale Score (Ordinal)

Insufficient	1
Low	2
Moderate	3
High	4

V.5 -LSU School Family Engagement Survey School Decision Making Subscale Score (Ordinal)

Insufficient	1
Low	2
Moderate	3
High	4

Appendix K (Continued)

V.6 -LSU School Family Engagement Survey Partnership Subscale Score (Ordinal)

Insufficient	1
Low	2
Moderate	3
High	4

V. 7 -School Attendance Rates

Enter Scale Data

V.8 -School Explore Scores

Enter Scale Data

V.9 - County Unemployment Rate

Enter Scale Data

V.10 - County Poverty Rate

Enter Scale Data

V.11 - County Per Capita Income Rate

Enter Scale Data

V.12 - School Accountability Score

Enter Scale Data

V.13 - Free & Reduced Lunch Percentage

Enter Scale Data

Appendix K (Continued)

V.14 Spending per Student

Enter Scale Data

V.15 Ratio of Persons voting in SBDM to School Membership

Enter Scale Data

V.16 - Ratio of Volunteer Hours to School Membership

Enter Scale Data

V.17 - Ratio of Behavior Incidents to School Membership

Enter Total events scale data

Appendix L: Final List of Participating Appalachian Kentucky Public Schools with Middle Grade Students

Appendix L: Final List of Participating Appalachian Kentucky Public Schools with Middle Grade Students

1. Casey County Middle School – Casey County
2. Clark Moore Middle School – Madison County
3. Clay County Middle School – Clay County
4. Garrard Middle School – Garrard County
5. Lone Jack School Center – Bell County
6. McNabb Middle School – Montgomery County
7. Menifee County Elementary School – Menifee County
8. Robert D. Campbell Junior High School – Clark County
9. Wallins Elementary School – Harlan County
10. Wayne County Middle School – Wayne County

Appendix M: School Explore Score

Appendix M: School Explore Score

School Year	Name of School	County	School EXPLORE Composite Mean Score
2014-2015	Lone Jack School Center	Bell	13.9
2014-2015	Casey County Middle School	Casey	14.7
2014-2015	Robert D. Campbell Jr. High	Clark	14.9
2014-2015	Clay County Middle School	Clay	14.3
2014-2015	Garrard Middle School	Garrard	14.8
2014-2015	Wallins Elementary	Harlan	15.6
2014-2015	Clark Moores Middle School	Madison	15.0
2014-2015	Menifee Elementary School	Menifee	14.3
2014-2015	McNabb Middle School	Montgomery	15.5
2014-2015	Wayne County Middle School	Wayne	14.9

Source: Kentucky Department of Education (2015). Retrieved November 15, 2015 from http://education.ky.gov/research/Pages/default.aspx

Appendix N: Ratio of Persons voting in SBDM to School Membership

Appendix N: Ratio of Persons voting in SBDM to School Membership

School Year	Name of School	County	Ratio of Persons Voting in SBDM to School Membership
2014-2015	Casey County Middle School	Casey	1.4%
2014-2015	Clark Moores Middle School	Madison	2.2%
2014-2015	Clay County Middle School	Clay	17.4%
2014-2015	Garrard Middle School	Garrard	1.2%
2014-2015	Lone Jack School Center	Bell	1.0%
2014-2015	McNabb Middle School	Montgomery	6.8%
2014-2015	Menifee Elementary School	Menifee	19.1%
2014-2015	Robert D. Campbell Jr. High	Clark	3.5%
2014-2015	Wallins Elementary School	Harlan	0.7%
2014-2015	Wayne County Middle School	Wayne	1.3%

Source: Kentucky Department of Education (2015). Retrieved November 15, 2015 from http://education.ky.gov/research/Pages/default.aspx

Note: Ratio is determined by dividing the total number of persons voting by the number of students for the school reported on the Learning Environment Students dataset

Appendix O: Ratio of Volunteer Hours to School Membership

Appendix O: Ratio of Volunteer Hours to School Membership

School Year	Name of School	County	Ratio of Volunteer Hours to Student Membership
2014-2015	Casey County Middle School	Casey	42.7%
2014-2015	Clark Moores Middle School	Madison	79.6%
2014-2015	Clay County Middle School	Clay	833.3%
2014-2015	Garrard Middle School	Garrard	113.0%
2014-2015	Lone Jack School Center	Bell	539.1%
2014-2015	McNabb Middle School	Montgomery	111.3%
2014-2015	Menifee Elementary School	Menifee	533.5%
2014-2015	Robert D. Campbell Jr. High	Clark	12.6%
2014-2015	Wallins Elementary School	Harlan	225.0%
2014-2015	Wayne County Middle School	Wayne	87.7%

Source: Kentucky Department of Education (2015). Retrieved November 15, 2015 from http://education.ky.gov/research/Pages/default.aspx

Note: Ratio is determined by dividing number of volunteer hours reported on the school report by the number of students for the school reported on the Kentucky Department of Education's Learning Environment Students dataset.

Appendix P: Ratio of Behavior Events to School Membership

Appendix P: Ratio of Behavior Events to School Membership

School Year	Name of School	County	Ratio of Behavior Incidents to Student Membership
2014-2015	Lone Jack School Center	Bell	17.3%
2014-2015	Casey County Middle School	Casey	40.7%
2014-2015	Robert D. Campbell Jr. High	Clark	23.1%
2014-2015	Clay County Middle School	Clay	131.7%
2014-2015	Garrard Middle School	Garrard	66.9%
2014-2015	Wallins Elementary	Harlan	2.4%
2014-2015	Clark Moores Middle School	Madison	86.1%
2014-2015	Menifee Elementary School	Menifee	54.0%
2014-2015	McNabb Middle School	Montgomery	63.6%
2014-2015	Wayne County Middle School	Wayne	71.1%

Source: Kentucky Department of Education (2015). Retrieved November 15, 2015 from http://education.ky.gov/research/Pages/default.aspx

Note: Ratio is determined by dividing the total number of behavior incidents reported on the Kentucky Department of Education's Learning Environment Safety data set by the number of students for the school reported on the Learning Environment Students dataset.

Appendix Q: VITA

Appendix Q: VITA

Penelope Ann Jordan

PROFESSIONAL EXPERIENCE

Dartmouth-Hitchcock Medical Center
Senior Internal Auditor
December 2015 to present

Dartmouth-Hitchcock Medical Center is a nonprofit academic health system that serves a population of 1.9 million in New England. Responsibilities include:

- Review compliance related policies and procedures to ensure adherence to applicable local, state, and federal regulations.
- Audit medical records for compliance with federal billing standards.
- Educate new hires on compliance regulations and topics during bi-monthly general orientation presentations.
- Serve on Patient Privacy committee to assess severity and nature of potential privacy violations.
- Assess the organization's ability to comply with federal regulations found in certain contractual agreements.
- Perform regular screening of Providers and staff against the federal excluded parties list.
- Monitor federal regulations pertaining to healthcare to make certain the facility meets the required standards.
- Retrieve and analyze organizational healthcare data to determine billing trends or potential areas of risk.
- Use analytical techniques to design audit programs, audit plans, and sample plans for routine monitoring of organizational controls.
- Support Organizational Ethics committee meetings by tracking action items, serving as meeting scribe, and preparing meeting agenda items.
- Serving on Research Operations Transition committee to ensure organization is in compliance with policy requirements of federal and foundation research grants transitioning to the organization.

Appendix Q (Continued)

Berea College
Partners for Education
Director of Finance and Operations
November 2010 to November 2015

Partners for Education at Berea College administers more than $26 million annually in federal and private grant funds in several Southeastern Kentucky counties to improve educational outcomes of K-12 students. Responsibilities included:

- Reconciling grant funds and preparing and enter adjusting entries.
- Monitoring accounts payable for department and collaborating with the college's finance office to ensure timely payments to vendors.
- Administering partner contracts and conducting in-depth reviews and assessments of contract proposals and vendor files.
- Managing departmental operational needs such as staff resources, facility maintenance requests, departmental purchasing, and project inventory.
- Identifying audit and review findings, trends, and patterns, and training project staff on corrective actions.
- Researching and reviewing pertinent federal laws and college policies to ensure project adherence to relevant regulations.
- Organizing and facilitating trainings for project staff on budget management and financial policies and procedures.
- Developing policies, standards, guides, and methods of financial analysis including grant projections, budget to actual comparisons, and monthly reconciliations for grant projects to make certain grant funds are utilized as anticipated.
- Demonstrating ability to lead, coordinate, and work effectively as both team leader and team member.
- Preparing, reviewing, and monitoring various financial reports and conduct complex analyses of multi-million dollar budgets.
- Recommending allocation of financial resources within broad budgetary limitations to support departmental goals and objectives.
- Assisting with grant development, program design, and matching requirements for new grants.
- Supervising finance and operation staff and provide coaching and mentoring as warranted.

REACH, Inc
Housing Counselor
April 2004 to November 2010

REACH, Inc is a non-profit organization dedicated to assisting low to moderate income households in central Kentucky with understanding and obtaining affordable housing options. Responsibilities included:

- Facilitating homebuyer education and foreclosure prevention classes.
- Conducting individual homebuyer education sessions and assisting clients with personal budgeting, credit improvement, and money management skills.
- Assisting Program Manager with file reviews for down payment grant assistance programs.
- Collaborating with attorneys, lenders, Realtors, and other relevant parties on loan closings and homebuyer contracts.
- Auditing program files for compliance with grant assistance and counseling requirements.

EDUCATION

Eastern Kentucky University
Doctor of Education
Educational Leadership and Policy Studies
Dissertation: *An Evaluation of Educator Perceptions Regarding the Level of Family Engagement in Appalachian Kentucky Schools with Middle Grade Students*

Indiana Wesleyan University
Master of Science
Major: Management
Accounting Specialization

Indiana Wesleyan University
Bachelor of Science
Major: Accounting
Cum Laude

Appendix Q (Continued)

PRESENTATIONS

Trends in Federal Grants Management

Kentucky Grant Professionals Association

A Place-Based, Results-Based Approach in Appalachia

National College Access Network

Home Counseling Protocols

Kentucky Housing Corporation Conference

ADDITIONAL EDUCATION, TRAINING, AND EXPERIENCE

Lean Applied to Business Processes Training

Grants Management Certification

United Way of the Bluegrass Agency Review Volunteer

Volunteer Income Tax Assistance Preparer

Housing Counseling Certification

Reverse Mortgage Counseling Certification

Habitat for Humanity Volunteer