

11-2014

# Middle School, School Culture, Parental Involvement, and the Academic Index

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MIDDLE SCHOOL, SCHOOL CULTURE, PARENTAL INVOLVEMENT, AND THE  
ACADEMIC INDEX

A Thesis  
Presented to  
The Faculty of the Department of Sociology  
Western Kentucky University  
Bowling Green Kentucky

In Partial Fulfillment  
of the Requirement for the Degree  
Master of Arts

By  
Jacob L. Clute

December 2014

MIDDLE SCHOOL, SCHOOL CULTURE, PARENTAL INVOLVEMENT, AND THE  
ACADEMIC INDEX

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MIDDLE SCHOOL, SCHOOL CULTURE, PARENTAL INVOLVEMENT, AND THE  
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December 2014

51 Pages

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This research examines two possible influences of student achievement at the middle school level: school culture and parental involvement. The study investigates Kentucky Scholastic Audits of 90 middle schools from 2001 through 2005. The purpose of the study is to identify whether school culture and parental involvement affect student performance. The results of this study suggest that demographic variables account for most of the variance in the Academic Index. Controlling for demographics, parental involvement does not affect the school Academic Index, while school culture does add significantly to the variance explained.

## **CHAPTER 1: INTRODUCTION**

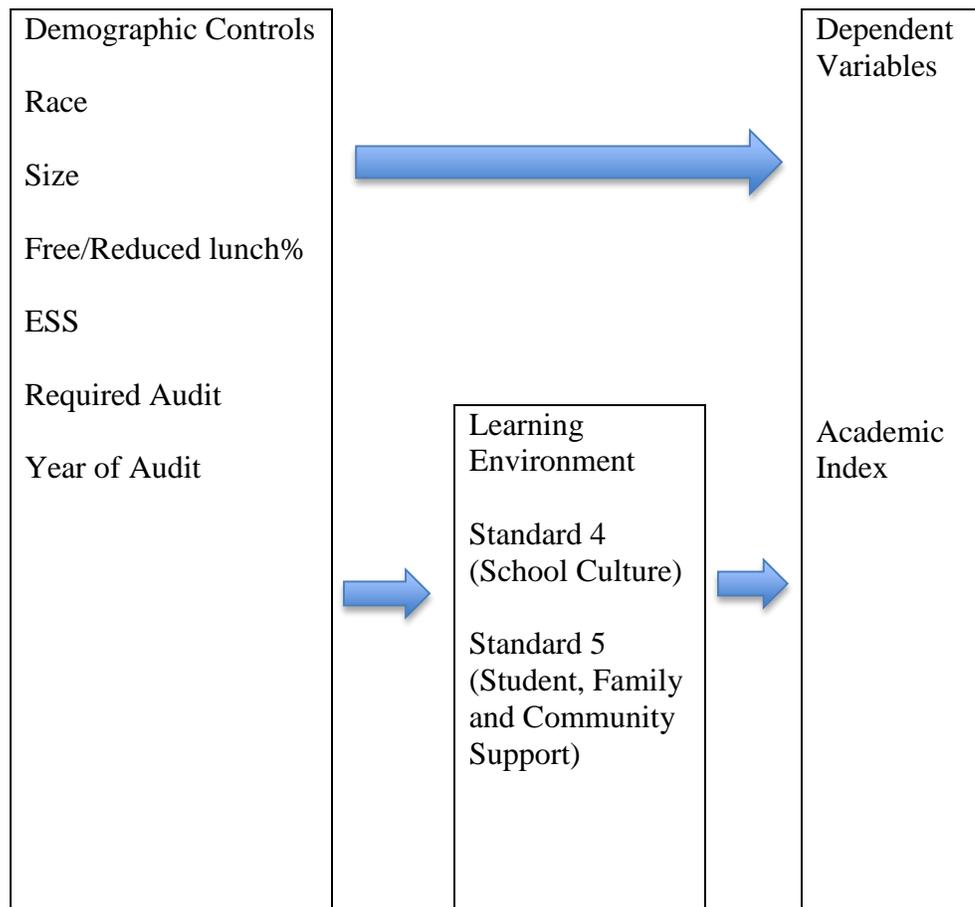
The public education system of the United States of America (U.S.) is under pressure to improve student achievement. One reason is that American education lags behind countries such as Finland, Norway, and the Netherlands on standardized tests (Usher & Medow, 2010). These countries with the highest standardized test scores in the world represent goals for the U.S. to emulate. In that regard, school systems across the country are having problems raising students test scores to government standards and are examining possible factors that influence student performance. If achievement is not raised, some states will sanction the school. Kentucky is one example of this threat of intervening and taking over the school (Saravia, 2008). In the search for solutions, practitioners and scholars have focused on parental involvement and school culture, among other strategies (Kentucky Department of Education [KDE], 2012a).

Parental involvement and school culture have demonstrated effects on learning (Purkey & Smith, 1983); however, there is a lack of information about the effects of school culture and parental involvement. This is especially true in Kentucky, currently ranked 33rd among U.S. states. Compounding this is a lack of information about how parental involvement and school culture affect the education of Kentucky's middle school students. This study uses data from Kentucky's Scholastic Audit from 2001-2005 to fill this gap by providing evidence on their effect on student scores.

### **Purpose**

Using an approach demonstrated by Saravia (2008) with elementary schools, this study investigates the influence of the alterable learning environment on student achievement, while controlling for student demographic variables. This work addresses a

gap in the literature by replicating Saravia at the middle school level. This gives parallel information about the middle schools, an area neglected over the past years, and tests the validity of the standards making up the Scholastic Audit system at the middle school level. Information from this study will also help schools understand what they need to increase their student achievement.



*Figure 1.* The Relationship Between the Demographic Controls, the Learning Environment (Standards 4 and 5) and Student Achievement.

There are two kinds of independent variables: Control variables, which consist of demographic factors, and the Learning Environment comprised of Standards 4 (School Culture) and 5 (Student, Family, and Community Support). The dependent variable in

this study is student achievement, measured by the Academic Index of the Commonwealth Accountability Testing System (CATS). Relationships between the variables are shown in Figure 1.

The research questions reflect the relationships depicted in Figure 1.

1. To what extent do the demographic controls influence the learning environment and the academic index.

2. To what amount the learning environment influence the Academic Index.

3. To what extent does the learning environment influence the Academic Index while controlling for the demographic factors.

The remainder of this study consists of five sections: a literature review, the methodology, results, discussion, and conclusion. The literature focuses on parental involvement, school culture, and the accountability system. The methods will discuss in detail the process of gathering and analyzing the data. After presenting the results the discussion presents possible implications and limitations. The study's conclusion completes this paper.

## **CHAPTER 2: REVIEW OF THE LITERATURE**

Kentucky schools' academic test scores have often been lower than many other states (Childress & Howell, 2011; Purkey & Smith, 1983). To catch up, educators must determine ways to improve student learning. One attempt to do this is through the use of school accountability assessments, measuring school performance, and experimenting to find ways to improve those scores (Saravia, 2008). A brief overview of past literature helps frame the connection between the current study and the larger area of accountability.

### **Accountability Systems**

The purpose of accountability systems is to determine which aspects of schools need improvement (KDE, 2012a). Kentucky's accountability system examines student performance and holds schools responsible for students achieving a certain score on state mandated tests and students' improvement (Saravia, 2008). Kentucky first implemented this system in the 1990s as a part of its comprehensive school reform effort. The accountability system has evolved several times since initial implementation, and has often changed names. Under the previous CATS test one measure of accountability was the Academic Index, a comprehensive indicator of four core subjects (Saravia, 2008). Scores on the CATS test were used to determine if schools reached their goal. To ensure that schools made significant improvement, they were measured by their adequate yearly progress or AYP (KDE, 2012b). AYP was determined largely by the Academic Index that schools reported along with several other nonacademic factors beyond the scope of this paper (NCDPI/Accountability Services, 2011). For schools that did not meet their goals in two years there were several possible consequences, ranging from having to

submit detailed improvement plans, participate in a Scholastic Audit, undergo state intervention, or, in serious cases, shut down the school and reopen it as a charter school (Saravia, 2008).

### **Scholastic Audits**

When a school AYP is insufficient or it did not meet the previously determined goal for that year by the state, the state brought in a team of highly skilled educators to conduct a Scholastic Audit to assist schools in determining what areas were problematic. Specifically, the Scholastic Audit was the measurement tool for the nine academic standards, which comprised the Standards and Indicators for School Improvement (SISI). These standards were broken into three groups: Standards 1-3 revolved around Academic Performance, Standards 4-6 centered on the Learning Environment, and Standards 7-9 were based on Efficiency (Kentucky Department of Education, 2012c). These standards were all interrelated and each standard was developed to represent one aspect of school reform that affects the accountability score of the school (Todd, 2010). This standards-based document included 88 indicators, giving specific behavioral and instructional details for each of the nine standards. The auditors assess the school on each of these standards and indicators within it by grading on a scale of 1-4.

This study focuses on two of the nine standards assessed:

Standard 4: School Culture.

The school/district functions as an effective learning community and supports a climate conducive to performance excellence.

Standard 5: Student Family and Community Support.

The school/district works with families and community groups to remove barriers to

learning in an effort to meet the intellectual, social, career and developmental needs of students.

The literature for these standards will be discussed in turn.

### **School Culture**

School culture, a top factor affecting student achievement, is a multidimensional topic and as such can be defined in many ways. The common definition is the unique beliefs shared by faculty, administration, and students of the school (Negis-iskik & Gursel, 2013). These shared beliefs create norms and values in the school, thus giving each school its own identity (Negis-iskik & Gursel, 2013). School culture is akin to organizational culture in that both schools and businesses develop as a hierarchal design (Glendon & Stanton, 2000). Principals are much like the business owners of the corporate world. Scholars adopting this viewpoint argue that principals, as school leaders, help establish the culture and thus instill norms, values, and beliefs within the system. The type of culture in place has been shown to change drastically the performance of the students and faculty (Negis-iskik & Gursel, 2013). This approach argues that development of culture starts at the top (principal) and then goes down the chain of command (Glendon & Stanton, 2000).

**Principals.** The principal's leadership helps demonstrate if there is support for safe, orderly, and equitable learning environments. When the principal role is played well, it is widely known that each student can learn and that the principal and their staff care about the student and their success. The more positive the principal's beliefs are in the school, the more opportunities for students. These beliefs will be adopted by the rest of the faculty and staff allowing them to hold high expectations for all students and to

accept fully their part in student achievement (Macneil, Prater, & Busch, 2009). The type of culture the principal fosters can have a significant impact on the school's academic outcomes.

**Effects of school culture.** School principals influence the culture of the school, but the question becomes how and why school culture matters for academic performance. The type of school culture the teachers and students are immersed in can dramatically affect the teachers', students', and schools' performance results (Macneil et al., 2009). School culture can build a relationship between principals, teachers, and students that is uncaring, unsupportive, and nonproductive (Blaze, 1987). This causes teachers to be unsatisfied with their jobs and fellow employees. Teachers then lose their motivation and that causes students to lose motivation that in turn leads them to poor performance, bringing down the academic index of the school (Macneil et al., 2009). On the other hand, a positive school culture would be expected to enhance this relationship and thus result in better academic outcomes.

**Measuring school culture.** School culture is difficult to measure but research by Halpin and Croft (1963) has provided a common tool for measuring the construct (Ross, 1976). The instrument they developed is called the Organization Climate Description Questionnaire (OCDQ), which contains 64 items. They are answered on a behavioral frequency scale of 1-4 ranging from *rarely occurs* to *frequently occurs* (Ross, 1976). These items are organized into eight categories. Four of the categories focus on teacher interaction and four on principal interaction. The categories for teacher interaction are Disengagement, Hindrance, Esprit, and Intimacy. The other categories focus on principal interaction: Aloofness, Production Emphasis, Thrust, and Consideration (Ross, 1976).

The scores showed that schools could be ranked along a continuum that had six climates ranging from open to closed. In order, the climates were open, autonomous, controlled, familiar, paternal, and closed. This instrument has been widely used and studies have shown the factorial content of the tool is consistent (Andrews; Brown; Norman; Novotney; Pritchard; Roseveare; Smith; Stansbury; Vanderlain, as cited in Ross, 1976).

Despite this instrument being so popular, it was not empirically tested against achievement until many years later where it was discovered not to be correlated with achievement, or negatively related (Conran & Beauchamp, 1976). A theory behind how this instrument could be valid yet not measure what it was intended is that there are two types of school culture--a school culture that focuses on teachers and how they feel about their jobs, and a school *learning* climate that focuses on expectations of the students. The OCDQ focused on the teachers and not on the expectations of the students, so it was measuring culture, just not the learning culture (Brookover & Ericson, 1975; Miller, 2008). The OCDQ may not have measured what it was intended to but it was among the studies that laid the groundwork for the standards and indicators that Kentucky uses today, as discussed earlier.

### **Parental Involvement**

Parental involvement is a difficult concept to define because it covers such a large variety of behaviors (Saravia, 2008). The relationship between parents and schools is a complex one. Parents and the schools are constantly interacting with one another and in many different ways (Epstein, 2010). While there have been many definitions, perhaps the most widely accepted definition is the one used in the No Child Behind Act (2002):

The participation of parents in regular, two-way, and meaningful communication involving student academic learning and other school

activities including: Assisting their child's learning, being actively involved in their child's education, serving as full partners in their child's education and being included, as appropriate, in decision-making and on advisory committees to assist in the education of their child, and the carrying out of other activities such as those described in section 1118. (NCLB action briefs parental involvement, 2004, p. 1)

**Types of parental involvement.** There are many different types of parental involvement. The most accepted model of parental involvement in education comes from Epstein (2010), which breaks parental involvement with schools into the following six types:

Type 1. Parenting: Schools help parents make an environment to support children as students.

Type 2. Communicating: Staff has effective forms of communication between school and home.

Type 3. Volunteering: Schools recruit and organize parents help and support.

Type 4. Learning at home: Schools inform parents on how to help students with school work, planning, organization, and various other activities.

Type 5. Decision making: Schools include parents in school decisions and make parent leaders and representatives.

Type 6. Collaborating with the community: Schools involve the community to help improve the school, family, and learning practices. (p. 704)

Distinguishing types of involvement should help schools and parents experiment to discover with which types of involvement might be beneficial in improving student outcomes. This helps each school establish a plan (Epstein, 2010).

**Effects of parent involvement.** Studies have shown that there is a relationship between parental involvement and student success (Hill & Tyson, 2009) whose meta-

analysis of parental involvement in middle schools found that parental involvement is positively related to high scholastic achievement and educational outcomes. The type of parental involvement that yielded the most significant effect was called academic socialization. Academic socialization--Type Two of Epstein's model--is defined by the parent communicating goals, expectations, and giving strategies to the student. Parental involvement (Type Three)--related to working, visiting, volunteering, or going to school events--was also positively related to student success (Hill & Tyson, 2009).

Parental involvement in school may also increase career goals but may not increase school performance. This is especially true for families with low socioeconomic status (Hill et al., 2004). When parents get involved, students become more involved with learning, increasing their effort, concentration, and attention (Gonzalez-DeHass, Willems, & Doan Holbein, 2005). Parental involvement has also been shown to increase high school graduation rates (Viramontez Anguiano, 2004). These effects are important because they directly affect student achievement and indirectly influence the school's academic achievement.

**Influences on parental involvement.** Parental involvement is influenced by many factors. Hoover-Dempsey and Sandler (1995) created a model that outlined basic factors involved in encouraging parental involvement. This model is organized into five levels; the first two are the most important for this study. The first level focuses on what makes parents decide to be involved. Parental involvement is influenced by what type of role that parent plays, parental beliefs in their ability to help, and requests for help from student or school. The second level is what influences the form of involvement a parent chooses. Forms of involvement are influenced by the parent's knowledge, time and

energy, and requests and demands for a specific type of involvement by child or school (Hoover-Dempsey & Sandler, 1995).

Certain factors such as ethnicity, socioeconomic status, education, and single parent or two parent households influence the likelihood of a parent becoming involved and determine the type of parental involvement (Viramontez Anguiano, 2004).

Numerous studies have examined how different factors such as parental involvement affect student achievement. Of particular relevance to the current study is the Saravia (2008) investigation.

### **Other Studies Utilizing the Scholastic Audit**

One dissertation on parental involvement was conducted by Saravia (2008). His study examined the link between parental involvement and school culture as they relate to the Academic Index. Regarding influences on parental involvement, Saravia's first research question was to what degree did the demographic controls affect parental involvement and school culture. Saravia found that several demographic factors were related to Standard 5 (Student Family and Community Support).

Beyond these demographics influences on parental involvement, Saravia (2008) also examined how both Standards 4 (School Culture) and 5 (Parental involvement) related to the Academic Index while controlling for the demographic variables. Saravia answered these questions with data from the Kentucky Scholastic Audits at the elementary school level following the methodology laid out by McKinney (2007).

Saravia's (2008) psychometric assessment demonstrated that the indicators of parental involvement and school culture both represent a single composite factor; their overall composite Cronbach's alpha was .91 and .77 respectively. These indicate that

both standards have adequate internal reliability and that the indicators of these standards can be combined to form a composite score. These results also demonstrate that Standards 4 and 5 are well-designed tools to measure school culture and parental involvement.

Multiple regression was run to answer the research questions. The results for Research Question 1 showed that the demographic variables had significant impact on Standards 4, 5, and the Academic Index. The impact on the Academic Index was larger than on the standards. Both Standards 4 and 5 had a significant impact on the Academic Index with standardized betas of .231\*\* and .169\*. This supports Saravia's (2008) hypothesis that Standards 4 and 5 have a significant impact on the Academic Index at the elementary school level and that working to improve school culture and parental involvement may be effective ways for schools to help increase their achievement.

Kentucky's SISI were created as a school improvement tool, utilizing the principles of standards-based curricula, expanded to capture the elements of school reform (KDE, 2012c). A series of dissertations has explored the relationship between different combinations of the nine standards and their cumulative effect on achievement, as measured by the Scholastic Audit. The Saravia (2008) study was one of these; descriptions of McKinney (2007) and Todd (2010) follow.

McKinney (2007) examined the interconnections of leadership, curriculum, and instruction, and how they interacted with school accountability scores in Kentucky elementary schools. This study's goal was to determine what principals could do to move schools from their current level to the standards adopted by the Kentucky Department of Education. To answer this question the study uses Kentucky's Scholastic Audit data,

exploring leadership's affect on the school's curriculum, instruction, and Academic Index. Additional research questions looked at curriculum and instruction's effect on achievement, how demographic variables affected leadership, curriculum, instruction, and the Academic Index, and how curriculum and instruction mediated the effect of leadership on the dependent variable while controlling for the demographic variables.

To examine these effects McKinney (2007) tested the psychometric soundness of Standards 1, 3, and 7 through factor and reliability analysis. The indicators measuring these respective standards all demonstrated one strong, coherent factor with good internal reliability. Next, McKinney (2007) ran a multiple regression, examining how leadership relates to the curriculum, instruction, and the Academic Index. He examined each set of variables in numerous models, until his final model demonstrated how the demographic controls, leadership, curriculum and instruction related to achievement.

The multiple regression analysis results showed that the demographic variables slightly affected the three standards with effect sizes of .08-.16. The demographics had an effect size of .62 on the Academic Index. Leadership (Standard 7) was shown to relate to curriculum and instruction with effect sizes of .35 and .36, and a smaller effect of .26 on the Academic Index. McKinney (2007) concluded that leadership, while controlling for demographic variables and mediated through curriculum and instruction, has a very large impact upon the Academic Index at the elementary school level in Kentucky.

The third and most recent study was written by Rebecca Todd (2010), a replication of the study done by McKinney (2007) except at the high school rather than elementary school level. Todd explored the relations among leadership, curriculum, instruction, and accountability scores. Kentucky schools had undergone a large reform

including making the standards-based curriculum reforms apply to the whole school; however, very little literature existed examining leadership, curriculum, and instruction at the high school level, so this study filled that gap. The specific research questions used to answer these questions included the following: (a) What is the relationship between demographic factors and standards for leadership, curriculum, and instruction and the Academic Index in Kentucky high schools; (b) How does leadership affect the standards for curriculum and instruction and the Academic Index in Kentucky high schools; (c) How do curriculum and instruction affect the Academic Index; (d) To what extent do curriculum and instruction, mediated by leadership and holding constant all demographic variables, affect the Academic Index of high schools in Kentucky.

To answer these research questions, secondary data from Kentucky's Scholastic Audits was used. Todd (2010) used the same statistical techniques that McKinney (2007) and Saravia (2008) used: running descriptive statistics, followed by a psychometric analysis, correlation, and then multiple regression. Like McKinney (2007), Todd (2010) found these standards to be psychometrically sound. The factor analysis demonstrated that a single factor emerged for leadership, curriculum, and instruction explaining 45.4%, 52.9%, and 48.2% of the variance. Respectively the results of Cronbach's alpha indicated that each standard formed a reliable composite when summing each of them into their own respective indexes with alphas for leadership being .873, curriculum .844, and instruction .837. Again the results of the psychometric analysis showed that these standards are exceptionally constructed.

Multiple regression was used to answer the research questions. Similar to the studies by McKinney (2007) and Saravia (2008), Todd's (2010) regression results show

that the demographic variables have a very large effect on the Academic Index, explaining 65% of the variation. Leadership explained 39% of the variation in curriculum and 40% of achievement. Curriculum was found not to have a significant impact on the Academic Index but instruction accounted for 40% of the variation in the Academic Index with statistical controls. The final hierarchical regression contained the demographic variables plus instruction and leadership and accounted for 76% of the variation within the Academic Index.

Todd's (2010) findings suggest that school leadership and curriculum are both relatively independent of the demographic variables at the high school level in Kentucky schools. However, the demographic factors have a big influence on achievement. The study also supports the idea that principals have an impact upon the Academic Index as mediated by their influence on instruction. Todd's (2010) research demonstrated the significant impact leadership and instruction have upon the academic index, indicating that these two standards constitute viable strategies to improve a school's Academic Index at the high school level as well as the elementary school level.

### **Theoretical Framework**

Many cultural theories have emerged which attempt to explain the role that culture and the environment play in specific aspects of society. The two theories used here are sociocultural theory and Brookover's social psychological model. Sociocultural theory emphasizes two key points: development starts with social sources; human action is accomplished through tools and signs. Scholars in this tradition argue that these first two points are best looked at through developmental or genetic analysis (John-Steiner & Mahn, 1996). Sociocultural theory focuses on the idea that children learn from their

environment and the interactions that take place in them (John-Steiner & Mahn, 1996). This directly applies to schools because their primary objective is to teach children and this cannot be done effectively if there is a poor learning environment with few relevant interactions. For meaningful interactions to occur the school must have adequate tools and signs; without these quality interactions cannot take place and then children cannot learn from them. This theory explains that the environment influences an individual's learning and what children learn from but does not explain how so many people can look at culture and achievement and get widely discrepant results.

**Brookover's Social Psychology.** Brookover's social-psychological model of school learning (Brookover & Erickson, 1975) lends itself to topics involving a school's culture and parental involvement. This model agrees with sociocultural theory in that culture does affect learning, but it also acknowledges influences from many other areas of an individual's life. Accounting for the vast influence of culture, the model suggests that a better way to measure a culture is to focus on its purpose rather than the parts that it consists of (Niu, Zhang, Miller, Chon, & Norman, 2014).

Since, the primary focus of this study is on the Academic Index, the best way to model school culture is to look at the factors that affect student achievement. Brookover's model (Brookover & Erickson, 1975) separates school culture into two different types: a more affectively oriented school culture and a more cognitively oriented school *learning* climate. The significance of this distinction is shown by the work of Halpin and Croft when the different subscales they developed to measure school culture (as cited in Niu et al., 2014) were either not associated with school culture or negatively associated with achievement. Conran and Beauchamp (1976) discovered the negative effects although the

OCDQ had become the primary tool for measuring school culture. Brookover's social-psychological model explains that the OCDQ was measuring affective teacher concerns, which is a form of school culture but not focused on the learning climate.

Distinguishing between school learning climate and other forms of culture is very important. Brookover's social-psychological model of school learning culture gives guidance based on the intended results, socio-demographic factors, and the dynamics of the school (Niu et al., 2014). Examining these components of the school learning climate allows scholars to theorize about the effectiveness of different school learning culture models.

Thus the literature generally shows that school culture and parental involvement, represented as two of the nine standards and indicators comprising the Scholastic Audit (KDE, 2012c), are related to achievement. The theories reviewed in this section help explain this connection. Brookover's social psychological model of school learning distinguishes between the learning climate and other types of climate. Because the standards and indicators for school improvement are concerned with the learning outcomes, school culture and parental involvement should significantly improve middle schools' academic indices. This statement is reflected in the formal hypothesis for this study.

**Hypothesis 1.** Higher school culture (Standard 4) scores will be associated with the Academic Index holding other demographic variables constant. Here school culture is the independent variable and Academic Index is the dependent variable. Race, free and reduced lunch, school size, student participation in extended school services, year of audit and if the audit was required will be controlled.

**Hypothesis 2.** Higher parental involvement (Standard 5) scores will be associated with the Academic Index after the demographic variables are held constant. Here parental involvement is the independent variable and the Academic Index is the dependent variable. Race, free and reduced lunch, school size, student participation in extended school services, year of audit, and if the audit was required are controlled.

### **CHAPTER 3: RESEARCH METHODS**

Scholastic Audit data provided by the Kentucky Department of Education will be used to examine the relationship between school culture, parental involvement, and school accountability scores in Kentucky middle schools. This sample consisted of 85 Kentucky middle schools—those schools containing the 6th through 8th grades or the 7th and 8th grades. Other combinations of grade levels were omitted from the sample. The sample included level three (in need of assistance) schools forced to go through the audit process by the Kentucky Department of Education, as well as any school that voluntarily went through the auditing process.

This study includes schools audited in the years 2000, 2001, 2002, and 2004; no middle schools were audited in 2003. In 2000, 27 schools were included; 2001, 5 schools; 2002, 27 schools; 2004; 26 schools ( $N = 85$ ).

Some middle schools have been excluded. This sample only includes middle schools that are grades 6-8 and 7-8. Any middle schools that had grades outside these were excluded, because having lower or higher grades would skew the data. One other middle school had to be excluded because it has been closed. Five middle schools had to be excluded after regression diagnostics were run because they were shown to be outliers causing a significant impact on the regression models.

#### **Dependent Variable**

The Academic Index constitutes the scores that schools achieved across all core subjects on the Kentucky core content tests measured by the CATS accountability assessment. The scores are graded on a 0-140 point scale. Higher scores indicate greater academic knowledge of the core subjects. The scores were constructed using an IRT

model. This model changes students' scores on the CATS test questions into a measure of student performance (theta) (Smith, 2006). The scores are then put on a normal curve and the state applies cut-points to determine whether the student's theta score falls into the categories of Novice, Apprentice, Proficient, or Distinguished. The categories are then assigned a value of 0, 40, 100, and 140. Next the students' scores for each core subject are averaged together. After this each student's average on each concept is averaged together to obtaining overall average for the school, resulting in the Academic Index.

### **Independent Variables**

There are two types of independent variables. The first type represents standards that are part of the Learning Environment from Kentucky's Standards and Indicators for School Improvement, namely school culture and parental involvement, to determine if they significantly affect a school's Academic Index. These variables are alterable, i.e., they can be changed by educators to affect the dependent variable (Bloom, 1980). The other type consists of demographic school-level controls. These variables do not change (non-alterable) and are held constant to determine the effects of the dependent variables after accounting for the prior influences of the demographic factors.

### **Standards 4 and 5**

**School Culture.** School culture is standard four of the nine Standards and Indicators of School Improvement that comprise the Scholastic Audit (Kentucky Department of Education, 2012c). This standard contains 11 indicators. See appendix for list of indicators. The indicators for school culture are rated as 1 = *Little or no development*, 2 = *Limited development or partial implementation*, 3 = *Fully functioning and operational level of development and implementation*, 4 = *Exemplary level of*

*development and implementation.* These items are averaged. The school culture index ranges from 1-4 where the higher number indicates better cultural quality.

**Student, Family and Community Support.** Student, Family and Community Support is standard five of the SISI (KDE, 2012c). This standard serves as the measure for parental involvement. This standard contains five indicators examined during the Scholastic Audit. See appendix for list of indicators. Rated on the same scale as Standard 4, the items are averaged. Thus student, Family and Community Support indicators are scored from 1-4 where higher numbers indicate more parental involvement.

### **Control Variables**

**Race.** Race will be represented by distinguishing the percentage of Whites students in the school.

**School Size.** Number of students enrolled in grades 7<sup>th</sup> and 8<sup>th</sup> (grades administered the CATS test for middle schools).

**Free and Reduced Lunch.** Free and reduced price lunch will be represented by the percent of students who receive free or reduced lunch. This will serve as an indicator for socioeconomic status (SES). This is an indirect measure but very closely related to SES. School research often uses free and reduced lunch as an indicator of SES (Saravia, 2008).

**Student Participation in Extended School Services.** Student participation in extended school services (ESS) indicates the percentage of students involved in ESS programs.

**Required Audit.** Required audit represents the number of schools forced to go through the auditing process. This was determined by KDE using the SAC score.

Required schools are coded as 1 whereas schools not required are coded as 0.

**Year of Audit.** The year of audit represents the year that the audit was conducted. Schools are required to improve every year, until they reach the predetermined goal or until they reach proficient level (KDE, 2012b). Because Kentucky schools have improved significantly across the state since the implementation of KERA in 1990 (Mckinney, 2007). The year of audit captures the improvement of schools over time. A set of dummy variables is used to measure the year of the audit indicating 2001, 2002, 2004, and 2005. (No middle school audits were done in 2003.)

### **Analytic Strategy**

There were multiple statistical techniques used to determine the effect that school culture and parental involvement have on the middle school Academic Index. Descriptive statistics were calculated for the demographic factors and the Academic Index. Then psychometric analyses addressed the measurement properties of standards 4 and 5. Factor analysis was used to determine whether the indicators functioned as a single factor. Then Cronbach's alpha determined the internal reliability of the indicators comprising the single factors for Standards 4 and 5. Finally inter-scale correlations examined the relationship between the two standards found in the overall correlation matrix, the academic index, and the control variables, forming the basis of the subsequent multiple regressions. Multiple regression was conducted to determine the extent of the effect that school culture, and parental involvement had on the Academic Index. Finally, hierarchical multiple regression was used to assess the effect of Standards 4 and 5 on achievement, with the demographics controlled.

## CHAPTER 4: RESULTS

### Descriptive Statistics

**Academic Index.** The descriptive statistics for all variables in the study are shown in Table 1. The Academic index is the score schools achieve on the comprehensive indicator of all core subjects measured by CATS accountability assessment. The scores are graded on a 0-140 point scale and the target score for schools in Kentucky is 100. The average score for schools in this study is 57.79 with a standard deviation of 9.49. The range of scores in this sample fall between 33.4 and 89.2. Scores are lower than the statewide average because level 3 schools, which are the lowest performing schools, are forced to go through the audit process, while the audit is voluntary for other schools, explaining why the range is so extreme.

**Control Variables.** The controls for this study are school size, race measured as the percentage of white students, percentage of students in the extended school services (ESS), socioeconomic status measured by the percentage of students who get free or reduced lunch (%Free), the year of audit (Year), and schools required to go through the audit (Required). Table 1 shows that the average size of the schools audited is 390.88 with a standard deviation of 156.71. The average percentage of white students in a school is 83.9%. An average of 53.76% of students per school receive free or reduced lunch.

Table 1

*Descriptive Statistics for All Variables (N = 85)*

Measure	Mean	Standard Deviation	Minimum	Maximum
Academic Index	57.79	9.49	33.4	89.2
School Culture	22.6	4.42	13	33
Parental Involvement	11.13	2.27	6	19
Size	390.88	156.71	41	853
% White	83.9	18.15	40.5	100
% ESS	20.41	14.13	0	69.72
% Free	53.76	18.25	0	89.26
Required	0.39	0.49	0	1
Year	2002	1.61	2000	2004

### **Psychometric Analysis**

School culture is measured by 11 indicators, whereas parental involvement is measured by just 5 indicators. A factor analysis was run on each standard separately. These analyses showed that 45.9% of the variance in Standard 4 and 59.2% of the variance in parental involvement was explained by a single factor. Cronbach's alpha was then used to assess the internal reliability of each standard. The results showed that both standards have exceptional internal reliability with school culture having an alpha of .88 and parental involvement an alpha of .82. Having Cronbach's alpha above .7 suggests that averaging the indicators into a single index is allowed. Once averaged this creates the

variables for school culture that will represent Standard 4 and for parental involvement, which will represent Standard 5 in the regression analysis. The mean for school culture is 2.05 while the standard deviation is .40; mean for parental involvement is 2.23 while the standard deviation is .45.

Table 2.

*Principal Components Analysis: School Culture*

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	5.06	3.97	0.460	0.460
2	1.09	0.22	0.099	0.559
3	0.87	0.07	0.079	0.637
4	0.80	0.15	0.073	0.710
5	0.65	0.03	0.059	0.769
6	0.62	0.13	0.056	0.825
7	0.49	0.04	0.044	0.869
8	0.44	0.05	0.040	0.909
9	0.39	0.05	0.036	0.945
10	0.34	0.08	0.031	0.976
11	0.27	-	0.024	1.000

Table 3

*Principal Components Analysis: Parental Involvement*

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	2.96	2.120	0.592	0.592
2	0.763	0.202	0.153	0.745
3	0.561	0.154	0.112	0.857
4	0.407	0.101	0.082	0.939
5	0.306	-	0.061	1.000

**Correlation Results**

The correlation matrix for all variables in this study is displayed in Table 4. The matrix shows that there are significant correlations between the Academic Index and several variables such as school culture ( $r = .45$ ), parental involvement ( $r = .44$ ), race ( $r = .53$ ), socioeconomic status ( $r = -.70$ ), the year of audit ( $r = .40$ ) and if the school was required to do the audit ( $r = -.52$ ). Socioeconomic status (SES), as proxied by the percentage of students in school receiving free or reduced price lunch (%Free), most significantly affects the widest range of variables and the Academic Index.

Table 4

*Correlations for Academic Index, School Culture, Parental Involvement and Demographic controls (N = 85)*

	Academic Index	School Culture	Parental Involvement	Size	% White	% ESS
Academic Index	--					
School Culture	0.45*	--				
Parental Involvement	0.44*	0.73*	--			
Size	-0.16	0.05	0.10	--		
% White	0.53*	0.16	0.10	-0.42*	--	
% ESS	-0.00	0.16	-0.09	-0.29*	-0.00	--

Table 4 continued

	Academic Index	School Culture	Parental Involvement	Size	% White	% ESS
% Free	-0.70*	-0.35*	-0.33*	-0.18	-0.28*	0.23*
Year	0.40*	-0.12	0.02	0.04	0.06	0.15
Required	-0.52*	-0.40	-0.33	0.12	-0.38*	0.01

Table 4 continued

	%Free	Year	Required
%Free	--		
Year	-0.13	--	
Required	0.47*	-0.16*	--

\*  $p < .05$

## Multiple Regression

The results of the multiple regression of the demographic factors on school culture are displayed in Table 5.  $F(6, 78) = 4.55, p < .001$ , showing the demographic factors have a significant influence on school culture. The  $R^2$  is .26 indicating that this model explains 26% of the variance within school culture. Three variables were significant: Socioeconomic status had the largest standardized beta with -.36. The percentage of students involved in extended school services had the next highest at .32. Year of the audit had the smallest impact with a beta of .28.

The  $B$  coefficient demonstrates that for every one-unit increase in that variable, the dependent variable will increase or decrease by the  $b$  coefficient. Thus for every unit increase in the percentage of students who receive free or reduced lunch, school culture would be expected to decrease by .008. The beta indicates that for every standardized unit increase in that variable, the dependent variable will increase or decrease by the beta. If the percentage of students who receive free or reduced lunch increases by one standard unit, then school culture will decrease by .36. The beta is particularly useful because it tells which variables have the greatest effect on the dependent variable since it standardizes the distribution of the variables even if they have differing measurement scales.

Table 5

*Regression of the Demographic Controls on School Culture (N = 85)*

Variable	<i>B</i>	Std. Err.	Beta	<i>p</i> > <i>t</i>	<i>t</i>
Year	-.07	.03	-.28	0.012	-2.56
Size	<.01	<.01	.17	0.156	1.43
% White	<.01	<.01	.10	0.423	0.81
% ESS	.01	<.01	.32	0.004	2.98
% Free	-.008	<.01	-.36	0.003	-3.10
Required	.099	.10	-.28	0.346	-0.95
Constant	1498.61	534.65	--	<0.001	2.80

Table 6 displays the relationship between the demographic controls and parental involvement. The demographic variables have a significant impact on parental involvement  $F(6, 78) = 2.50$ , significant at  $p < .05$ . This model demonstrates that the demographic variables account for 16% of the variance within parental involvement. The only variable significant is the percentage of students that have free or reduced lunch with a beta of  $-.34$ , although the percentage of student in extended school services is almost significant ( $p = .06$ ).

Table 6

*Regression of Demographic Controls on Parental Involvement (N = 85)*

Variable	<i>B</i>	Std. Err.	Beta	<i>p</i> > <i>t</i>	<i>t</i>
Year	-0.02	0.03	-0.09	0.457	-0.75
Size	<0.01	<0.01	0.16	0.227	1.22
% White	<0.01	<0.01	0.05	0.702	0.38
% ESS	0.01	<0.01	0.22	0.062	1.89
% Free	-0.01	<0.01	-0.34	0.008	-2.71
Required	-0.06	0.12	-0.06	0.638	-0.47
Constant	50.9	64.99	--	0.436	0.78

Table 7 presents the results for the multiple regression of school culture and parental involvement on the Academic Index,  $F(2, 82) = 12.11, p < .001$ , indicating a significant influence on the Academic Index. This model accounts for 23% of the variation in the Academic Index. Though the overall model is significant, neither standard was found to have a significant impact on the Academic Index. This is unexpected because in past literature both these standards significantly affect the academic index when not controlling for other variables.

Table 7

*Regression of Academic Index on Standards 4 and 5 (N = 85)*

Variable	<i>B</i>	Std. Err.	Beta	<i>p</i> > <i>t</i>	<i>t</i>
School Culture	6.50	0.37	0.28	0.057	1.93
Parental Involvement	4.97	2.98	0.24	0.099	1.67
Constant	33.37	5.05	--	<0.001	6.61

Table 8 presents a hierarchical regression model that displays the relationships between the demographic variables and the Academic Index in step one. Then in step two both school culture and parental involvement are included with the demographics.

The first step was significant,  $F(6, 78) = 34.3$ ,  $p < .001$ , with the demographics explaining 73% of the variation in the Academic Index. The three demographic variables that were significant are year of audit ( $p < .001$ ); Race (%white) ( $p < .001$ ), and SES (%Free) ( $p < .001$ ). SES has twice as strong an influence with a beta of  $-.61$ , while race and year of audit both had betas of  $.30$ . Saravia's (2008) research also showed these variables being significant, along with other variables not controlled for here. Saravia's work showed socioeconomic status with a beta of  $-.36$ , much lower than the beta at the middle school level. Similarly the beta for race is also much lower being at  $.22$ . The beta for year of audit is higher in Saravia's work at  $.35$  rather than  $.30$  here for middle schools.

The second step of the hierarchical regression includes school culture and parental involvement to show their additional relationship with the Academic Index after controlling for the demographic influences the model is a good fit  $F(8, 76) = 36.84$ ,  $p < .001$ . The results show that the model is a good fit. This model explains 80% of the

variance within the academic index. Many variables had a significant impact but the strongest impact was the percentage of students who had free or reduced lunch with a beta of -.50. The year the audit had the second greatest effect with a beta of .37 followed by the percentage of white students with .24. School culture was significant with a beta of .23. The lowest effect was school size with -.17. Only school culture was significant of the two standards but it explains 7% more of the variance in the Academic Index. The addition of School Culture also drove down the effects of SES by .11.

Table 8

*Hierarchical Regression of Standards 4, 5, and Demographic Controls on Academic Index (N = 85)*

Variable	<i>B</i>	Std. Err.	Beta	<i>p</i> > <i>t</i>	<i>t</i>
Year	1.79	0.39	.30	0.012	4.59
Size	-0.01	<0.01	-.11	0.120	-1.49
% White	0.16	0.04	.30	<0.001	3.99
%ESS	0.04	0.04	.64	0.331	0.98
%Free	-0.32	0.04	-.61	<0.001	-8.66
Required	0.16	1.50	-.01	0.914	0.11
Constant	-3511.63	778.34	--	<0.001	-4.70

Table 8 continued

Variable	<i>B</i>	Std. Err.	Beta	<i>p</i> > <i>t</i>	<i>t</i>
School culture	5.40	1.96	.23	0.007	2.39
Parental involvement	1.99	1.63	.10	0.227	1.22
Year	2.21	.36	.37	<0.001	7.58
Size	-.01	<.01	-.17	0.010	-2.63
% White	.14	.03	.27	<0.001	4.12
% ESS	-.02	.04	-.03	0.623	-0.49
% Free	-.26	.03	-.50	<0.001	-7.58
Required	.81	1.32	-.04	0.540	0.62
Constant	-4056.79	671.70	--	<0.001	-6.04

Finally, Table 9 displays the variance inflation factor (VIF) for each variable. VIF is an indicator of multicollinearity used by researchers to determine if variables are too closely related and will have a negative impact on the regression model. Thus researchers should strive to have the lowest VIF possible because it indicates less problems with multicollinearity. The most common highest VIF value allowed is 10 but some literature suggests it should be as low as 4 (Pan & Jackson, 2008). The table below shows that the highest VIF in the model is 2.56 well below the values expressed in the literature. Thus, demonstrating that multicollinearity is not a problem in this model.

Table 9

*Variance Inflation Factor*

Variable	VIF	1/VIF
School Culture	2.56	.391
Parental Involvement	2.26	.442
Year	1.36	.733
Size	1.51	.663
% White	1.60	.627
% ESS	1.36	.738
% Free	1.61	.621
Required	1.72	.583
Mean VIF	1.75	

## CHAPTER 5: DISCUSSION

As countries continually compete with one another, education becomes increasingly important, making it vital to examine what affects student achievement. This study looked at how two standards (school culture and parental involvement from Kentucky's Standards and Indicators for School Improvement) affect a school's Academic Index.

School Culture (Standard 4) consists of 11 indicators while parental involvement (Standard 5) consists of 5 indicators. These sets of indicators are supposed to measure the same underlying construct (the respective standard). While this measurement issue has been confirmed previously for all nine standards from the SISI for elementary schools (Ennis, 2007; McKinney, 2007; Saravia, 2008) and for Standards 1, 3, and 7 for high schools, the standards have not been empirically tested for middle schools. To test this assumption, both factor analysis and Cronbach's alpha were run on the indicators for school culture and parental involvement. These factor analysis results demonstrated that the indicators comprised a single factor assessing school culture or parental involvement, respectively. Likewise, Cronbach's alpha confirmed the internal reliability of both school culture and parental involvement. The alpha coefficients for school culture and parental involvement indicated very high internal reliability with the standards being both valid and reliable averaging the indicators into one composite scale score is permitted, so that both standards constitute sound measurement tools.

To answer the research questions regarding the effects that the demographic variables have in middle schools in Kentucky, a series of multiple regressions were run. Tables 5 and 6 present the results of the regressions for the portion of Research Question

1 on the influence of the demographic factors on the learning environment. Table 7 addressed Research Question 2, the effect of Standards 4 and 5 on the Academic Index. Finally, Table 8 examined the full model for the study in two steps. Step one showed the relationship between the demographic controls and the Academic Index. Step two explained the effects of Standards 4 and 5 after controlling for the demographic factors in step one.

### **Research Question 1**

Question one looks at the extent that demographic controls influence school culture, parental involvement, and achievement. Schools cannot control all of the factors that affect their academic index (Bloom 1980), and unfortunately this study like many others before it shows that demographic factors have strong influences on academic outcomes and those non-alterable variables are often the hardest to overcome. Socioeconomic status (%Free) had the greatest effect, indicating that the economic conditions of the community the school is located in remains the most influential factor in academic achievement and supports claims by Roeder (cited in Saravia 2008). In comparison to past literature at the elementary school level (Saravia's, 2008, own work) socioeconomic status has an even greater effect at the middle school level. The year of audit had the second greatest effect providing evidence that Kentucky's education reform system is affecting middle schools positively. While the pace for many schools has been slow, the indicators are showing that most schools have made significant gains in their academic index. However, the audit year is less significant at the middle school level (Saravia, 2008). Ethnicity also significantly affected the Academic Index that was higher at the middle school level than elementary; the higher percentage of white students within

the school the better the school scores. This last finding is consistent with most research on race and poverty in American schooling, in all likelihood related to the fact that race and poverty are so intertwined in the American fabric and neither is completely adequately measured separately.

**Demographics, School Culture and Parental Involvement.** The effect size of the demographic controls on both standards was much smaller than on achievement, which suggests that they influence achievement directly rather than through school culture or parental involvement. For those middle schools, socioeconomic status (%free) had a negative impact on the school culture, demonstrating that the poorer the school the more school culture is reduced. The percent of students in extended school services had the next greatest effect on school culture. This may be because as the school culture is stronger, participation in extended school programs increases. It could also be the reverse that greater participation in these programs builds stronger culture. In addition, the audits conducted in later years were associated with reduced school culture. This differs from studies at the elementary level. For comparison, in Saravia's (2005) work the percentage of students involved in extended school services is the only variable that significantly affects school culture, with a beta of .15. Not only are more variables significant at the middle school level but they are also having a stronger impact than at the elementary level.

The demographic controls also had significant impact on parental involvement. Socioeconomic status had a very large effect on parental involvement and was the only significant factor. This is likely because the less money the family and community have and the more that family members have to work, the less opportunity they have to be

involved both in the schools and with their children. Percent of students involved in extended school services was almost significant at  $p = .062$ . At the elementary level participation in extended school services also had no effect but socioeconomic status does (Saravia 2008). This may be because extended school services are much less frequent in elementary school but money is always a constant issue. Socioeconomic status is more important at the middle school level than elementary because it has a much stronger affect when compared to Saravia's (2008) .25 beta for the elementary level.

## **Research Question 2**

A multiple regression was run to examine the relationship between the learning environment (School Culture and Parental Involvement) and the Academic Index. The model explains very little of the variation in the Academic Index. Neither standard had a significant impact on the Academic Index for these middle schools, contradicting what the past literature says. This is a surprising result but may be explained by the age group. Many middle school students' intimate reference group starts to shift from family to their peers, which would lower the impact of parental involvement on student achievement. Moreover, the ways that families are encouraged to participate in schools decrease or are channeled into specific booster organizations, resulting in lower parental involvement in middle school and secondary schools.

Children discovering what they like and which peer groups they want to associate with could also be minimizing the effects of school culture because children may be so focused on finding where they belong or gaining access to a specific group that they are unconcerned with school activities. Regardless of the reason the variables do not affect achievement, these results do not support the claim that the standards and indicators have

a positive impact on academic achievement for middle schools. Further investigation is warranted in looking at what causes the shift between school culture and parental involvement being significant at the elementary level to not being significant at the middle school level.

### **Research Question 3**

A hierarchical regression was used to analyze the impact of the learning environment on the Academic Index when the demographic variables are being controlled. Step one of this regression explains most of the variation in the Academic Index, demonstrating that it is a very strong model. The addition of the demographic controls greatly increased the models strength, demonstrating the importance of the demographic variables.

In step two, School Culture had a significant additional impact on the Academic Index meaning that the schools learning culture is very important since it affects student achievement and can be altered by the school. This is the most profound result since school culture was not significant when the demographics were not controlled for, yet became significant once they were controlled. This supports the claims that school culture is important for both poor performing schools and high performing schools. The addition of school culture decreased the impact that SES had on Academic Index. This is important because it gives teachers another tool to combat the negative side effects of a child's demographics. It is also interesting that after the controls are added school culture effects elementary and middle schools to a similar degree.

With all other variables being controlled for, parental involvement was not significant. This result also contradicts what past literature tells us. The findings here are

inconsistent with what Saravia (2008) found at the elementary school level. Both standards were significant with betas of .23 and .17, but here only school culture is significant, signifying a large difference in middle schools and elementary schools. Along with the core variables being significant Saravia also had race, socioeconomic status and year be significant again with betas of .27, -.28, and .34.

Thus, middle school is a time where students often focus more on their friends and less on their families, possibly making parents play a lesser role in school. The schools themselves tend to not involve parents as much at the middle school level as they do at the elementary level.

## CHAPTER 6: CONCLUSIONS

Unfortunately for school leaders this study demonstrates that demographic variables still have the largest impact on student success, and of these variables SES is the most influential. Furthermore the comparison of this study and Saravia's (2008) shows that SES becomes significantly more important in middle school. This may be because middle schools have many more clubs, sports, and events that cost money. Thankfully not all hope is lost because this study does demonstrate that a positive school learning culture can help to influence student achievement and counter the negative effects that demographics may have on the school, particularly SES. As a result, schools should focus more attention toward improving the learning culture to bring up student achievement. In contrast, emphasizing parental involvement does not appear to be a viable strategy for improving student's academic scores at the middle school level.

For future research, examining the effects of the other standards on the academic indexes of middle schools would be necessary, both to see if they have an effect and to ensure the psychometric soundness of the rest of the standards at each school level. Research on how these standards affect the accountability index of a school would be interesting since the academic index is the dependent variable in most studies. A limitation that could not be helped is this study uses data from the Scholastic Audits, i.e., the validity and reliability of the data rely on the accuracy of the auditors.

In conclusion, the standards and indicators have been previously demonstrated to be solid tools for measuring schools' strengths and weaknesses at the elementary level (Ennis, 2007; McKinney, 2007; Saravia, 2008). The current study provides evidence for their applicability at the middle school level for Standards 4 and 5. The study reaffirms

that the biggest effect on student achievement is SES and that the rest of the demographic factors also play large roles in a school's success. The results showed that focusing on parental involvement to increase student performance will be ineffective, but building a positive school learning culture can significantly increase student performance. The significance of school culture supports the idea that this factor is important in both high and low performing schools, but that alone is not enough to overcome the demographics, particularly the effects of poverty. If this is the case then the states may be holding lower level schools to unfair standards because they would essentially be asking them to perform better than the high performing schools. These results also further question the belief that schools are the great social equalizer. While schools can certainly contribute to this noble goal, the evidence on the effects of poverty suggests that schools cannot, by themselves, achieve this societal goal. This means that simply throwing money at the schools will not solve the problem because there is a much larger social issue, namely poverty. To get the schools to higher standards of quality, the social problems of the students, their families, and the community must be addressed as well.

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## APPENDIX

### Standards

Standards 4 and 5 are given in the text; the specific indicators for those two standards are listed below.

#### **Standard 1: Curriculum.**

The school develops and implements a curriculum that is rigorous, intentional, and aligned to state and local standards.

#### **Standard 2: Classroom Evaluation and Assessment.**

The school uses multiple evaluation and assessment strategies to continuously monitor and modify instruction to meet student needs and support proficient student work.

#### **Standard 3: Instruction.**

The school's instructional program actively engages all students by using effective, varied, and research-based practices to improve student academic performance.

#### **Standard 6: Professional Growth, Development, and Evaluation.**

The school/district provides research-based, results driven professional development opportunities for staff and implements performance evaluation procedures in order to improve teaching and learning.

#### **Standard 7: Leadership.**

School/district instructional decisions focus on support for teaching and learning, organizational direction, high performance expectations, creating a learning culture, developing leadership capacity.

#### **Standard 8: Organizational Structures and Resources.**

The school is organized to maximize use of all available resources to support high student

and staff performance.

**Standard 9: Comprehensive and Effective Planning.**

The school/district develops, implements, and evaluates a comprehensive school improvement plan that communicates a clear purpose, direction, and action plan focused on teaching and learning.

(Kentucky Department of Education, 2012c)

**Indicators for School Culture (SCULT)**

**(SCULT1).**

There is leadership support for a safe, orderly, and equitable learning environment.

**(SCULT2).**

Leadership creates experiences that foster the belief that all children can learn at high levels in order to motivate staff to produce continuous improvement in student learning.

**(SCULT3).**

Teachers hold high expectations for all students academically and behaviorally, and this is evidenced in their practice.

**(SCULT4).**

Teachers and non-teaching staff are involved in both formal and informal decision-making processes regarding teaching and learning.

**(SCULT5).**

Teachers recognize and accept their professional role in student success and failure.

**(SCULT6).**

The school intentionally assigns staff to maximize opportunities for all students to have access to the staff's instructional strength.

**(SCULT7).**

Teachers communicate regularly with families about individual student's progress.

**(SCULT8).**

There is evidence that the teachers and staff care about students and inspire their best efforts.

**(SCULT9).**

Multiple communication strategies and contexts are used for the dissemination of information to all stakeholders.

**(SCULT10).**

There is evidence that student achievement is highly valued and publicly celebrated.

**(SCULT11).**

This school/district provides support for the physical, cultural, socio-economic, and intellectual needs of all students, which reflect a commitment to equity and an appreciation of diversity.

**Indicators for Student, Family and Community Support (SFCS)**

**(SFCS1).**

Families and the communities are active partners in the educational process and work together with the school/district staff to promote programs and services for all students.

**(SFCS2).**

Structures are in place to ensure all students have access to all the curriculum.

**(SFCS3).**

The school/district provides organizational structures and supports instructional practices to reduce barriers of learning.

**(SFCS4).**

Students are provided with a variety of opportunities to receive additional assistance to support their learning, beyond the initial classroom instruction.

**(SFCS5).**

The school maintains an accurate student record system that provides timely information pertinent to the student's academic and educational development.