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An ecological examination of dropout rates and multiple level measures of social integration in Mississippi school districts 2005-2008: does career and technical education play a part?

Jacob Travis Walker

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LEVEL MEASURES OF SOCIAL INTEGRATION IN MISSISSIPPI

SCHOOL DISTRICTS 2005–2008: DOES CAREER AND

TECHNICAL EDUCATION PLAY A PART?

By

Jacob Travis Walker

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Approved:

James Adams
Associate Professor of Instructional
Systems and Workforce Development
(Major Professor)

R. Dwight Hare
Professor of Leadership and
Foundations
(Director of Dissertation and
Committee Member)

Patti Abraham
Professor and Director of the
Research and Curriculum Unit
(Committee Member)

Nicole Thompson
Assistant Professor of Curriculum
Instruction and Special Education
(Committee Member)

Teri Brandenburg
Assistant Professor of Instructional
Systems and Workforce Development
(Committee Member)

Linda F. Cornelious
Professor and Interim Department
Head of Instructional Systems and
Workforce Development
(Graduate Coordinator)

Richard L. Blackbourn
Professor and Dean of the College
of Education

Name: Jacob Travis Walker

Date of Degree: December 11, 2009

Major Field: Instructional Systems and Workforce Development

Major Professor: Dr. James Adams

Director of Dissertation: Dr. R. Dwight Hare

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Candidate for Degree of Doctor of Philosophy

The purpose of this study was to conduct an ecological examination of the relationship between social integration and dropout rates at the school and community level, and the role of career and technical education in this relationship. This paper also attempts to determine if this relationship changes depending on how urbanicity is operationalized.

This study adds to the existing research concerning the ecological relationships between dropout rates, community social integration, school social integration, and urbanicity in Mississippi. Three-year averaged event dropout rates for 2005-2008, multiple community and school measures of social integration, and three different operationalizations of urbanicity were used. Some expected relationships were found to be true while others indicate that social integration at both the school and community level are so intertwined in their effects on dropout rates that no clear pattern emerges.

The varying results related to the role of urbanicity in this study provide support for the need to further examine the concepts of community and location as factors that impact educational outcomes such as dropping out of school. This is particularly important when one considers that most educational policies that are implemented in a state tend to be overarching treating school districts no matter what size they are the same.

This study also highlights that there are factors that impact what one would traditionally expect to find in the relationship between dropout rates and social integration that do not hold true. For example, an inverse relationship between dropout rates and local funding was expected, but in this study the relationship was found to be positive. One possible explanation for this is related to the fact that local taxes for schools are mandated by the county government and not voted on by the people. This changes the theoretical expectations of this relationship leading to possibly false assumptions.

DEDICATION

This dissertation is dedicated to my loving parents Cheryl and Charles Green who have always stood by me and encouraged me to continue on no matter what. This dissertation is also dedicated to my grandfathers Jewel Walker and Pete Peterson who have been inspirations to what a person can be no mater the situation. I would also like to dedicate this dissertation to the loving memory of my grandmothers Daisy Walker and Marilyn Peterson. While I was never fortunate enough to meet grandma Daisy before her passing, the stories of her strength and love for her family have served as guidance throughout my life. And to grandma Marilyn, for being the mother my mom needed after grandma Daisy passed away at such a young age, and showing me that the true meaning of family is not in blood, but in love.

I would also like to dedicate this dissertation to the educators along the way who have provided me with guidance. To Dr. R. Dwight Hare for seeing something in me five years ago when I first came to Mississippi State University that others did not, and providing constant council academically, professionally, and personally. To Dr. Jeralynn Cossman, a true friend without whom this journey would have probably ended before it ever started when I was an

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CHAPTER I

INTRODUCTION AND REVIEW OF LITERATURE

Introduction and Statement of Problem

"Turn on, tune in, and drop out." Little did Dr. Timothy Leary (1966), a

former faculty member at Harvard, realize how well received—yet incorrectly

interpreted—his anthem for the 1960's LSD drug movement would be, in 1966

and still today. While the average dropout rate for the United States has dropped

considerably since the time of Leary's famous speech from approximately 15% in

1970 to 9.4% in 2005, we still need to attempt to reduce it even further (Laird,

DeBell, Kienzl, & Chapman, 2007). It has been decades since the U.S. has seen

any large-scale reduction in the overall dropout rate. As of 2005, 3.4 million of the

36.7 million individuals aged 16–24 were dropouts. This number increases even

more when the age is reduced to include younger students (Laird, et. al., 2007).

While the dropout rate is a problem for the nation as a whole, it is an even larger

problem in Mississippi than many would like to acknowledge (Planty, Hussar,

Snyder, et al., 2009). This problem in part can be attributed to the fact that,

depending on the source of reporting and techniques used, the overall dropout

rate for Mississippi is either increasing or decreasing.

With the increased accountability requirements placed on states through the No Child Left Behind (NCLB) Act and requirements for data collection for the new Perkins IV funding for career and technical education programs, data collection has been improving in many states, including Mississippi (Kim & Sunderman, 2004; Perkins IV, 2006). This improvement coupled with the federal government's requirement that states become more accountable for where their students are and where they go after graduation has created a need for expanded research efforts in this area. It is also important to acknowledge that it is from many of the accountability requirements established for career and technical education programs funded by Perkins IV money that more in-depth research examining educational outcomes for both traditional academic and career and technical students can be accomplished (Perkins IV, 2006).

In the realm of dropout research, there are traditionally two levels of aggregation, the individual and the district/school (ecological level), with the former receiving the bulk of the attention. When examining what impacts an individual's decision to drop out of school, a fairly common approach is that of social integration. Social integration is the extent that an individual belongs to a group or population with generally accepted norms and values (Sampson, Morenoff, & Gannon-Rowley, 2002). Social integration is also used synonymously with social capital, which is defined by Bourdieu (1986) as "a durable network of more or less institutionalized relationships of mutual acquaintance and recognition—or, in other words, to membership in a group" (p. 248). The more integration or capital a group has the more positive the outcomes

for individuals and the group are. While studies that have examined how an individual's level of social integration/social capital can impact the individual's decision to drop out of high school (see for example Finn & Gerber, 2005; McNeal, 1999), little attention has been paid to the ecological-level or community-level relationship between dropout rates and measures of social integration.

Examining the literature in the social sciences shows that social integration is a fairly dominant theory used to examine a number of social phenomena such as crime, inequality, modernization, urbanization, divorce, and suicide (Walker, 2009). As such, it seems only appropriate that a phenomenon such as dropout rates could be examined from the same theoretical perspective.

Individual social integration would be measured by examining how well the student is integrated with his or her peers or with the school in general using measures such as regular attendance, lack of disciplinary actions, academic achievement, number of peer relationships, and career and technical education participation. For example, career and technical education participation and completion provide a number of benefits that are related to social integration. In particular, career and technical training provides an individual with valuable skills and training needed to gain a good job with good pay, increasing the individual's level of economic integration (Arum, 2000; Dougherty, 1987).

Using research that looks at ecological levels of social integration rates, however, requires a different approach. Because there is very little literature examining the relationship between dropout rates and social integration rates,

this research will draw heavily on a body of literature that looks at the role of social integration rates and other negative life outcomes such as crime rates, suicide, and general mortality.

Researchers of social integration rates have operationalized social integration using a number of different variables such as poverty, residential stability, divorce rates, labor force statistics, religion, educational attainment, and urbanization (Ainsworth, 2002; Breault, 1986; Brewster, Billy, & Grady, 1993; Harding, 2003; McNeal, 1999; Myers, 1999; Putnam, 1995; Rankin & Quane, 2002; Stack, 1996; Trovato & Vos, 1992; Wasserman, 1984). This body of literature shows that the variables used to operationalize social integration vary depending on researcher, topic, and time frame (Breault, 1986 & 1988; Breault & Kposowa, 1987; Brewster, Billy, & Grady, 1993; Harding, 2003; Lester, 1995a, 1995b, 1997a, & 1997b; Stack, 1980a, 1980b, 1987, 1995, & 2000).

Previous research found by this researcher that examines the relationship between educational outcome rates and social integration rates tends to test only one or two measures of social integration (Harding, 2003; Rankin & Quane, 2002). However, this is not the case when social integration is used in examining other social phenomena. In those cases, multiple measures of social integration tend to be included to construct a more thorough picture of the impact of social integration rates on the topic of study (see for example Chuang & Huang, 1997; Lester, 1995a, 1995b, 1997a, & 1997b; Putnam, 1995; Walker, 2009). As a result of this lack of a diversified, multiple-measure approach to studying social integration rates as they relate to dropout rates, one of the unique contributions

of the current research is to test how the use of various social integration

measures can yield varying results.

Early on, social scientists in Europe were concerned with understanding

and explaining social disruptions that tended to accompany modernization—in

particular, increased numbers of people living in closer proximity to one another,

working in manufacturing plants, and increased migration (Anderson, 1980).

Social disruptions such as these can have both positive and negative effects on

social integration.

One of the first people to closely examine the relationship between social

integration and social disruptions was sociologist Durkheim during the late 19th

and early 20th centuries (Durkheim, 1897/1966). He originally used maps of

family density and church participation as measures of social integration to

examine various social disruptions in Europe. Many researchers (see for

example Breault, 1986 & 1988; Breault & Kposowa, 1987; Lester, 1995a; Stack,

1980a) have continued on this path of inquiry in more recent times, making use

of divorce rates, female labor force participation rates, rates of religious

adherents, and migration rates as indicators for social integration. As such,

continuing in this original line of inquiry of the role of social integration and social

disruptions, the theoretical approach that will be used in this research is based in

Durkheim's work on social integration.

It has been noted that at the nation–state level, Durkheim (1897/1966),

making use of his maps, argued regional variation was core to the relationship

between social integration and social disruptions. This need to examine regional

variation is even more important today especially when studying dropout rates. This is made evident by the differences in dropout rates that can be seen regionally or within a state, county, or district (Chuang, 1997; Fitzpatrick & Yoles, 1992). For example, the National Center for Educational Statistics reported that in 2001 the South had the highest regional dropout rate at 5.4% while the Northeast had the lowest at 4.2% (Kaufman, Alt, & Chapman, 2004). At a smaller level aggregate, it has also been found that in severely disadvantaged or impoverished neighborhoods, the dropout rate is nearly triple that of more affluent or advantaged neighborhoods (Ainsworth, 2002).

Large area aggregated data from nations or states tend to average out sources of nonrandom variations, while smaller level aggregate data allow researchers to note nonrandom variations that may only be seen at smaller levels of analysis (Breault & Kposowa, 1987; Walker, 2009). With advances in computer capabilities, increased attention to accountability in education, and refined statistical methods, researchers can now begin to attempt to empirically test the theory of social integration as it relates to dropout rates (Walker, 2009).

In this study, variations in district-level dropout rates in Mississippi are examined using measures of community and school social integration and a number of control variables. Districts' social integration measures include average number of disciplinary incidents per student, average number of suspensions per student, average number of absences per student, average number of transfers to different schools per student, and percent of funding from local dollars.

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Community integration measures include percent female labor force participation, percent of the population over 16 years of age that is divorced, percent of the population that lives in a different county than 5 years ago, percent urban, percent of the population that is Catholic, mainline protestant, evangelical protestant, or other denomination and number of congregations per 10,000 people by religious group. District-level controls include Student-teacher ratio, percent of the student body receiving free or reduced lunch, and percent of student body that is non-white.

The relationships between these measures and district-level dropout rates in Mississippi are examined for dropouts between the 2005–2006, 2006-2007, and 2007–2008 school years using a three-year average for a more stable rate. All variables were also examined using percent urban, a three category least, middle, and most urban, and a dichotomous rural versus non-rural distinction to highlight if variations in how location is aggregated can cause variations in the findings.

<center>Justification for Study</center>

This research addresses three important limitations in the existing research: a) analysis of dropout rates and community- and district-level social integration; b) the role of career and technical education participation rates as an indicator of economic integration and therefore social integration as it relates to dropouts; and c) how different operationalizations of urbanicity can change the outcome of the models. This research addresses these limitations by using

<center>7</center>

district and county level measures of social integration to examine dropout rates and performing analysis using three different rural-urban measures. First, three-year dropout rates were calculated at the district levels for the school years of 2005–2006 through 2007–2008 to compensate for year-to-year variations in dropout rates and provide a more stable rate. These dropout rates were then used in multiple models with the various measures of district and county social integration and district- and county-level controls. These analyses give researchers a clearer picture of the effect of social integration on dropout rates in Mississippi public schools as well as the role that career and technical education plays.

Definition of Terms

Ecological—refers to a community or overall environment is presented in contrast to the individual.

Operationalize—how a concept is measured.

Variables used in this study are explained in the review of literature and operationalized in the data and methods section.

Review of Literature and Rationale for Inclusion of Specific Integration Measures

Dropout

Nearly 25 years ago, Thornberry, Moore, and Christenson (1985) found a number of negative outcomes that result from individuals dropping out of school that can range from economic to criminal to health-related. Individuals who drop

out of high school experience marriage at earlier ages, higher rates of teen pregnancy and parenthood, higher divorce rates later in life, poorer health outcomes, and higher rates of criminal behavior early as well as later in life.

From the standpoint of economics, dropouts experience negative economic outcomes for their entire life cycles. A number of researchers (Goldschmidt & Wang, 1999; Jarjoura, 1993) have shown that individuals who graduate from college make more money than those who graduate from high school, and those who graduate from high school make more than those who drop out. Research has also shown that the unemployment rate for individuals who drop out of high school tends to be much higher than that of graduates (USBLS, 2006).

The differences between the economic outcomes of those who drop out of high school, graduate from high school, and graduate from college are growing yearly (USBLS, 2006). In the middle part of the 20th century, a high school diploma was a viewed as a valuable commodity in the workforce. However, in the modern world of changing technology and information expansion, a high school diploma is the absolute minimum that an employer is expecting. It is more likely that an employer will look for some sort of formal training or certification, if not an actual college degree.

There are a number of other problems related to dropping out, especially in the realm of mental and physical health. According to Kaplan, Damphousse, & Kaplan (1994), psychologically, individuals who drop out of high school can expect to experience more life-disrupting conditions than those who graduate

from high school. For example, individuals who drop out tend to experience lower levels of self-esteem and self-worth, disrupted coping mechanisms that are normally developed through puberty, and rejection from society creating psychological dysfunction and, as a result, reduced social integration. These individuals also experience higher rates of alcoholism and drug abuse alone or in combination with a number of other conditions (Kaplan et. al,1994).

The individual is not the only victim in the case of high school dropouts. The overall society is also placed at a disadvantage. Economically, dropouts make less money, spend more time unemployed, tend to have poorer health conditions, and have higher rates of childbirth than graduates; as a result, dropouts tend to make use of social programs more often than graduates (Teachman, Paasch, & Carver, 1996). Therefore, dropouts contribute less to the tax structure while taking more from the system. They also experience higher rates of delinquency, addiction, and criminal behavior resulting in overcrowded prisons. Research shows that dropouts make up approximately 70–85% of individuals in prison (Stephens & Theodore, 1992). As a result, society is spending even more money on the maintenance of these individuals and on the families they tend to leave behind. Finally, an important and needed area of spending related to dropouts is the millions of dollars spent on dropout prevention and job training for those who have dropped out of school.

Since dropping out affects not only the individual but also his or her family and society as a whole, it is important that educators and society understand what leads an individual to become a dropout. Research has shown that the

process of dropping out is not instantaneous or strictly linear but much more of an evolving and intertwined dynamic process (Astone & McLanahan, 1991). If factors that influence an individual to become a dropout can be identified sufficiently early in the process, strategies can be implemented to keep individuals in school and reduce the impact of future outcomes that result from individuals dropping out of school for both the individual and society.

Social Integration

Social integration is the degree to which a person belongs to a cohesive social group or population with generally accepted norms and values (Breault, 1986). One of the first attempts to quantify social integration was conducted by Durkheim (1897/1951) in the late 19th century. He believed that certain deleterious behaviors were affected by social facts demonstrating the level of social integration in a population (Durkheim, 1897/1951).

Social integration is manifested in a number of ways such as role accumulation/expansion, family integration, religious integration, residential integration, and economic integration. It is believed that the level of social integration that a group experiences is directly reflective of the strength or weakness of social ties within that group, with a lack of integration resulting from weak ties (Durkheim, 1897/1951).

Durkheim (1897/1951) summarized his view concerning social integration when speaking about the role of the collective mentality of a larger family:

[I]n a family of small numbers, common sentiments and memories cannot be very intense; for there are not enough consciences in which they can be represented and reinforced by sharing them.... But for a group to be said to have less common life than another means that it is less powerfully integrated; for the state of integration of a social aggregate can only reflect the intensity of the collective life circulating in it. (p. 202)

It was from this mindset that Durkheim began to develop methods of measuring social integration at the ecological level making use of aggregated measures of individual level information to draw conclusions about the overall social world.

Community Measures of Social Integration

Female Labor Force Participation

Female labor force participation has steadily increased over the past 100 years to the level it is today (U.S. Department of Labor, 2006). During the mid-20th century, there was a sharp upturn in the number of women in the workforce because most men were sent off to fight in World War II. This depletion of the male workforce left essential jobs vacant to be filled by women. This was the beginning of a permanent change in the American labor force makeup.

Since this time, a number of issues such as family structure, economic environment, and gender role expectations has recreated the way female labor force participation (FLFP) is seen. Female labor force participation is now such a

normal part of an adult's life in America that it actually increases the individual

female's level of social integration (Stack, 1987; Simpson & Conklin, 1989). FLFP

allows women to earn more money, have more personal freedom, and have

more self-esteem (Marks, 1977).

A question asked is how this affects the family. Kalmijn and van Groenou

(2005) argued that while women participating in the workforce may act as a

builder of social integration insulating them from some social disruptions, it may

also be contributing to disruptions for others, specifically high school dropouts.

They further argued that although mothers may be working and earning more

money for the home increasing economic integration of the family and the group,

they are less likely to be able to assist in traditional child care activities,

especially in a two-wage earner or single-parent household.

Research by McNeal (1999) that relates the role of parental involvement in

student outcomes presents the argument that if a parent is not at home to assist

children with homework, those students will likely have reduced performance in

school and isolation due to poor performance, leading to reduced integration.

Divorce

Marital status is a form of family integration, and marriage is a way of

increasing the level of integration a person experiences in the family unit

(Durkheim, [1897] 1966). This integration is increased when children result from

such unions. Divorce, on the other hand, increases the level of vulnerability and

stress within the family and results in low family integration and reduces social integration levels overall (Kowalski, Faupel, & Starr, 1987).

This reduction of social integration due to divorce results many times from the extended burden placed on the single parent who is the primary caregiver of the children. The need to work, most likely full time, and take care of children and the home limits the amount of external interaction a divorced individual will experience, therefore reducing his or her level of social integration (Kalmijn & van Groenou, 2005). Another reason for this reduction can be the loss of friendships that existed within the marriage that are lost at the time of divorce.

Family cohesiveness and divorce have also been shown to impact children in a number of ways. In particular, Amato & Booth (1991) found that individuals from intact families where they describe their parents as unhappily married have lower levels of well-being than those who come from intact families with happily married parents. In addition, divorce can lead to declines in parent–child interactions, especially if a geographic move is involved in the divorce (Amato & Booth). This can all lead to disruptions for children in all areas of their lives including educational performance. On the other hand, being in an intact family can increase attachment and integration into the educational setting thus improving outcomes (Johnson, Crosnoe, & Elder, 2001).

An examination of the literature indicates that the relationship between divorce and educational achievement is not always clear-cut. To illustrate this, Battle (1997), using the National Education Longitudinal Study of 1988 found that when research efforts control for socioeconomic status, the impact of divorce on

African-American children's educational achievement is unique. Specifically, African-American children who were below the mean socioeconomic level and came from divorced homes scored significantly higher on standardized test measures than African-American children from married families, and there was no effect for more financially secure students (Battle, 1997).

Migration

Migration is the movement of people into or out of a specific geographic location or, more simply put, any permanent change in residency (Weeks, 2002). Group stability is necessary for the development of integration (Schieman, 2005). As such, stable populations with little migration are essential to building a cohesive, highly integrated environment for children to flourish. Disruption to this integrated environment can have long-lasting effects on children beyond high school well into adulthood (Myers, 1999). It is believed that multiple migrations early in life disrupt children's and adolescents' ability to form intimate social ties due to continued disruption, reducing their levels of social integration.

This changing of environments requires children to be exposed to new values and belief systems of the location to which they are moving, making it difficult for a child to fully establish an individual value system that is compatible with the group in which he or she is a member. This can lead to secondary stressors such as social isolation and reduction in social support due to separation from family, friends, neighbors, schoolmates, and teachers (Myers, 1999). Making the effect of migration even more severe, these same stressors

affect the entire family, not just the children, multiplying the negative effects of migration.

Attachment to a community is facilitated through residential stability and higher numbers of individual friendship ties. Therefore, families that are residentially stable tend to be more socially integrated while those that move tend to be less socially integrated and not as well suited to provide pathways for their children that lead to social integration (Myers, 1999).

Urbanization

Urbanization is relocation of populations from rural, agricultural areas to the city due to a reduction in the number of jobs in the rural environment and an increased need for jobs in the city. This is because of industrialization leading to increasing proportions of the population living in urban areas. During urbanization, a number of disruptions to the level of social integration in a group can occur. In particular, there is a decrease in population homogeneity, the degree to which a group is similar, that occurs leading to a questioning of the once accepted dominant belief systems and norms due to secularization, or the movement away from traditional religious belief systems that proliferated rural communities prior to urbanization (Masayrk, 1881/1970; Stack, 2000). This, in turn, causes a reduction in the insulating effects of socially integrating pathways, such as religion, the community and family (Stack, 2000; Walker, 2009). What impact this has on educational outcomes, though, is not completely clear. Researchers have shown everything from urbanicity having no effect on

education to the other end of the spectrum (Catsambis, 2000; Finn, Gerber, & Boyd-Zaharias, 2005; Haller, Monk, & Tien, 1993).

Finn et al.(2005) examined the effects of class size in early grades on the likelihood of graduation. When urbanicity is taken into account, suburban and rural children are more likely to graduate than their urban counterparts. Over 10 years earlier, Haller, Monk, and Tien (1993) found no effect of urban/rural classification on student performance on science and math tests. To display this lack of consistency even further when examining the role of urbanicity on educational achievement, Catsambis (2001) found that when looking at parental influence on students' 12th-grade math, science, and reading test scores, increased levels of urbanicity resulted in lower performance on all three test areas.

Direct ties between urbanization and social integration, and mixed views on the effect of urbanicity on educational achievement, necessitate further examination. This is particularly important in this study because of the limited urban areas in the population of interest.

Religion

The insulating role of religion in several areas of social development has consistently been seen in a variety of studies of the social world. Durkheim (1897/1951) viewed religion as the pathway through which individuals develop a sense of moral obligation to submit to and adhere to society's demands, resulting in increased social integration. He was not concerned with the specific religious

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activities of individuals but more with religion as a group activity with common group bonds (Durkheim, 1912/1954). Traditionally, religion was very ritualistic and strictly defined with specific beliefs and practices. More recently, religion has taken on a much more individualistic and freethinking approach, much like the evolution of many school settings. As such, Lee & Bartkowski (2004) argued that religion is an excellent measure of social integration, with areas that have higher rates of religious integration having higher rates of social integration.

There is a school of thought that there are religious organizations called civically engaged denominations that tend to be more socially integrated than others into the communities they inhabit (Lee & Bartkowski, 2004; Tolbert, Lyson, & Irwin, 1998). It is believed that these groups play a role in deterring deviant behavior at the ecological level through participation in local associations and churches. This causes an increase in civic participation to occur, increasing social integration by reducing the out migration of people due to an increased connectedness to the community (Putnam, 1995; Walker, 2009). It has been found that there is a positive relationship between high rates of mainline protestants and Catholics and an increase in social capital and social integration in an environment, as well as a decrease in social capital and social integration related to higher rates of evangelical protestants (Beyerlein & Hipp, 2005).

In education, the positive impact of Catholic school attendance on academic achievement has been shown in numerous studies (Evans and Schwab, 1995; Noell, 1982; Willms, 1985). It has also been found that in urban areas with high concentrations of Catholic schools, attendance at these schools

is beneficial to the academic achievement of minorities and whites, with minorities benefiting more from attendance than whites (Neal, 1997). To further examine the impact of religion on educational achievement, Lee and Bryk (1988) found that the effect of Catholic schools resulted in significant increases in career and technical education students taking advanced placement mathematics and science courses, in turn multiplying the effects of career and technical education program participation on integration in the educational system.

This higher level of performance of students in Catholic schools is believed to be due to their constrained organizational structure that minimizes differentiation effects leading to a more collective mentality within the system (Lee & Bryk, 1989). However, the effect of religion on education is not limited only to Catholics. Regnerus and Elder (2003) pointed out that for all religious groups, religious participation can be helpful in academic achievement. They found that this insulating effect of religion is particularly important to students who come from lower-income backgrounds. It was found that low-income students who had the same level of church attendance as their high-income counterparts had higher rates of academic achievement (Regnerus & Elder, 2003).

<div align="center">School Measures of Social Integration</div>

While researchers have regularly examined individual level indicators of social integration in schools, very few have looked at rates of these behaviors as indicators and their impact on rates of academic achievement. As such, the following section looks at possible indicators of social integration within school

districts that would conceptually coincide with the perspectives of the social integration theory such as economic integration, deviance, and fiscal commitment to the community.

Deviance in the System

One of the primary purposes of school after educating children is to instill in them the values and norms of the group in which they live and of the larger society as a whole (Durkheim, 1925/1956). Therefore, the schools' resembling external community as closely as possible in composition and behaviors is essential. This replication assists in children's integration in the school as well as in society. When a student does not feel part of the system within the school, that student will become less integrated. Or if the school is not accurately representing the social environment of the student outside of the school, disruption and loss of integration will occur the same way it does in the larger community.

Researchers have demonstrated the negative consequences for social integration related to high rates of deviance in society (Felson, Liska, South, & McNulty, 1994; Massey, Condran, & Denton, 1987; Sampson et al., 2002). This deviance is measured in crime rates, suicide rates, and low rates of participation within the larger group, along with others (Sampson et al., 2002). Translating this to education, these deviant behaviors could be measured by looking at factors such as discipline rates, suspension rates, and absenteeism, all of which have also been linked to various measures of educational attainment.

Discipline and suspension rates in schools are similar to crime and punishment rates from the population as a whole. It would then stand to reason that schools that have high rates of disciplinary referrals or suspension would have a less integrated environment due to students not following the accepted norms and values of the larger group, resulting in disintegration. As this relates to educational outcomes, there have been mixed reviews over the past few decades. DiPrete, Muller, and Shaeffer (1981), for example, found that higher rates of discipline early in an educational setting result in a lower need for discipline in later years with higher achievement rates. This stance is criticized, though, by Noguera (1992), who believed that strict authority-based settings are counterproductive to the educational process and interfere with the educational process.

High rates of absenteeism similarly would be indicative of a lack of integration into the school system and larger social system due to a lack of engagement (Finn & Voelkl, 1993). When asked what they need most in high school graduates, many employers highlight having strong soft skills such as arriving to work on time or arriving to work at all. As such, if a school has a high rate of absenteeism, that school is not meeting the needs of the society at large. If the employers in an area feel that the school has not prepared students for the expectations of the real world, they will be less likely to hire students from those schools, therefore reducing the level of integration of the school within the community and the economic integration of individuals from that school overall.

A school that has low rates of absenteeism is one that instills in its students the importance of good attendance and is also indicative of the broader social context (Smyth, 1999). In other words, a community that ensures that its students are attending school regularly is indicative of a community that is well integrated in that it knows and follows the expectations for success. It also is indicative of higher rates of family integration; in a functioning family, parents will have a system in place that ensures students will not only be ready for school but will also be ready for school on time. This avoids absences and tardiness. In contrast, in a community that has lower rates of family integration due to divorce or other factors, there will be more chances that older children will be responsible for making sure that the younger children in the family are ready for school on time and are not tardy, therefore increasing the school's absenteeism rates. This problem is even more apparent when an older sibling is caring for a younger sibling because if the younger sibling is not ready when the bus arrives, both children will incur an absence. Even in environments where walking to school is an option, this problem is compounded by school policies that do not allow children to be signed in late without a parent.

As a result of high rates of absenteeism, students will not be as well prepared for not only the real world outside of school but also the expectations of performance within the school system. These students will have lower grades, experience more deviant behaviors, and possibly cause disruptions for others in the school. High rates of absenteeism also contribute to increasing the likelihood an individual will drop out in the educational system (Bryk & Thum, 1989).

22

Career and Technical Education as an Indicator for Economic Integration

School structure, particularly from the standpoint of curricular offerings, can affect the outcomes of students not only in school but also in their job-seeking success or failure after high school (Arum, 2000; Arum & Shavit, 1995). Thus, from the standpoint of integration, participation in a career and technical education program is important in that it prepares students to be more economically integrated post high school than those who have not had career-readiness experience prior to finishing high school.

Career and technical education programs traditionally have maintained some form of cooperative education plan that requires students to work in a local setting that pertains to their area of training (Perkins IV, 2006). These individuals will have already developed the interpersonal relationships necessary to establish continued employment post high school, increasing their social and economic integration into the community in which they live.

This factor brings about the question of the availability of jobs for students who participate in particular career and technical education programs and the possibility for employment options in those areas. It is necessary to determine if the integration experienced is due to employment in the same field in which training was received, the participation in a career and technical education training program, or employment in general. Studies from the late 1980s and mid-1990s found that the effects of a career and technical education program in

a school depend on if students actually receive employment in the areas in which they were trained (Bishop, 1989; Hotchkiss, 1993).

When students who have been trained in specific vocational areas receive jobs in those same areas in the local community, those programs' reputations with local employers are built. Social scientists have repeatedly demonstrated how the process of obtaining a job includes not only interpersonal skills but also institutional relationships between local educational entities and employers (Arum, 2000). This relationship is so important that legislation such as Perkins IV, which is responsible for funding the majority of career and technical education programs in the U.S., requires that all programs develop community-based partners and have periodic meetings throughout the school year to ensure that the needs of the community partners are being met by the program (Perkins IV, 2006).

According to Weiss (1995), successful completion of a vocational program acts as a signal to employers that a student has the skills needed to be a benefit to their companies. This is particularly helpful in areas with a high level of integration of the career and technical education program within the economic community. If employers can forgo many of the costs of hiring and training employees through their connections with the schools, graduates of those programs experience the benefits of higher rates of integration (Weiss). In return, it is assumed that the integration of the individual increases because he or she is a participating member of the economic community. Also, those individuals are fulfilling traditional roles, making them more attractive to a potential mate leading

to increased family integration. In addition, they are more likely to stay in the area in which they are employed, potentially increasing residential integration.

Research has even shown that this signaling is particularly important for females' integration. For example, Arum and Way (1998) found that employers are more likely to fill clerical positions with females from school-assisted job programs, which can increase early labor market outcomes leading to better outcomes later in life.

Funding Sources and Community

The money spent by schools is important in many ways to the success of students in those schools. Ever since the *Coleman Report* of the 1960s highlighted issues related to educational outcomes and resource inequality, researchers have tried to examine this issue closely (Arum, 2000). There are multiple studies that have found that there is either a direct or indirect effect between total educational expenditures and school dropout rates. Fitzpatrick and Yoles (1992) found that the total educational expenditures had an indirect mediating effect on dropout rates. It has also been found that a strong direct effect exists concerning the impact of federal educational revenue on pupil–teacher and staff–teacher ratios and an indirect effect on student achievement. Therefore, if a school has more than an adequate amount of funds to spend on resources to enhance the learning environment, it is expected that there will be an increase in positive student outcomes.

As a more localized indicator of integration, the level of local funding provided to a school is important to understand. It is hypothesized that the higher the percentage of local funding for a school, the more integrated the school and community are due to an increased commitment to the students and that school. It would be expected that a school that has high rates of local funding would have a lower dropout rate than one with lower local funding. However, literature (see for example, Fitzpatrick & Yoles, 1992) offers a mixed viewpoint about the existence of any effect of such local-level funding on dropout rates.

<center>Controls</center>

Student-Teacher Ratio/School Size

There are mixed opinions about the role of classroom or school size on dropout rates. Hanushek (as cited in Arum, 2000) testified that the differences in outcomes for students in a 40-student classroom and those in a 15-student classroom were negligible in St. Louis schools in 1996. This is contradictory to what Hedges, Laine, and Greenwald (1994) found using meta-analysis. Alternatively, other researchers have found that students from smaller classes have higher gains in cognitive tests as well as higher rates of educational attainment and incomes later in life (Card & Krueger, 1992; Finn & Achilles, 1990; Finn, Gerber, & Zaharias, 2005).

Finn et al. (2005) examined the effects of small class size over time with students and found that multiple years in a small class size environment were required to experience the long-term benefits of participation. Their findings

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indicated that multiple years of participation in small class sizes actually help to mediate the negative effects of low socioeconomic status. Conversely, researchers taking spatial properties into account found that there was no relationship between student–teacher ratios and dropout rates but a positive relationship between total enrollment and dropout rates in Louisiana schools (Schafer & Hori, 2006). This finding is particularly interesting in that an indicator of class size is not significant, but an indicator of school size is. This also is interesting theoretically in that if a classroom is considered as a proxy for a family, following Durkheim's logic, there should be a more collective mind-set increasing integration leading to better outcomes, but this does not tend to be the case.

Income/Inequality/Poverty

In the late 19th century, Durkheim (1897/1966) originally contended that poverty tended to impose higher levels of social restraint and self-restraint resulting in lower rates of social disruption, but more recently this has not been seen as the case. Researchers have actually found that poverty tends to reduce the level of economic integration an individual has, therefore reducing the overall level of social integration leading to dysfunction. It would be expected, then, that if a person is not economically integrated, that person would be more apt to experience the disruption of dropping out.

As mentioned earlier, finances and funding impact educational outcomes in a number of ways and through a variety of pathways. One way is that they limit

the ability to purchase educational materials for the home to add enrichment to what students learn in the schools (Margo, 1986). Poverty impacts multiple aspects of the lives of people that live in these areas. In high-poverty areas, the availability of local funds for school financing is limited, restricting access to quality learning materials. Persistent poverty multiplies this by impacting individual health due to a lack of access to health care, resulting in inability to attend school causing more problems (Kawachi & Berkman, 2000). Living in poverty can also force students into the workforce earlier than they should be due to the need to support their families, leading to a number of negative consequences if they work too many hours (Marsh, 1991).

At the neighborhood level, it has been shown that living in a neighborhood that has high rates of poverty results in higher rates of dropouts as well as higher rates of teen pregnancy compared to neighborhoods with low rates of poverty (Harding, 2003). Vartanian and Gleason (1999) found that moving from a low-quality neighborhood—as measured by poverty, inequality, and other variables—to a high-quality neighborhood resulted in a 6% decrease in the probability of dropping out. While there seems to be evidence supporting the deleterious effects of poor economic conditions on educational outcomes, other researchers have found no relationship between neighborhood economics and educational outcomes (Ensminger, Lamkin, & Jacobson, 1996).

When looking at income inequality, which is the extent of the disparity between high and low incomes of groups in a specific area, a number of social disruptions can be noted. For example, the greater the income equality of an

area is, the greater the social integration of the area and areas with high rates of inequality tend to have lower social integration and have high rates of all forms of mortality, high rates of suicide, high rates of violent crimes, and higher dropout rates (Hansmann & Quigley, 1982; Vartanian & Gleason, 1999; Walker, 2009).

Educational Attainment

There are a number of positive effects for communities that are related to the educational attainment of the individuals that make up those communities. For example, communities that have higher rates of educational attainment have lower rates of overall mortality and lower crime rates (Hummer, Rogers, & Eberstein, 1998). Parents' educational attainment heavily influences students' likelihood of dropping out of high school or graduating from college (Vartanain & Gleason, 1999). It has also been found that there is an inverse relationship between mothers' or fathers' levels of education and the likelihood of dropping out for both males and females (Chuang, 1997; Ensminger et al., 1996).

To connect this to the ecological level of the community, it can be expected that if an environment has a high rate of adults who have higher levels of education, those adults would serve as exemplars of what higher educational attainment can lead to. This would act as a signal to students in the area, leading to a reduction in negative educational outcomes and an increased desire to integrate into the educational environment so as to increase their likelihood of replicating the example in the dominant society.

Race

There are multiple bodies of research that point out the differences in dropout rates based on race and socioeconomic status. The effect of ethnicity follows a fairly stable path showing that Hispanics drop out more than blacks, who drop out more than whites (Kauffman, Alt, & Chapman, 2001). The Hispanic population has a unique situation. When examined by subgroup (i.e., Mexican, Cuban, Haitian, etc.), there are a number of confounding factors that influence dropout rates that may exist for one subgroup but not others. Such factors include, but are not limited to, the time period historically in which they immigrated, number of generations that have been in America, and language. As such, dropouts tend to be disproportionately represented in minority or ethnic groups (Fitzpatrick & Yoles, 1999). While researchers have consistently highlighted that minority status affects an individual's likelihood of dropping out, others have examined this relationship at an aggregate level (Fitzpatrick & Yoles, 1999; Schafer & Hori, 2006).

Fitzpatrick and Yoles (1999) believed that at an ecological level, higher rates of at-risk groups such as minorities have important consequences because high concentrations of these groups can lead to educational funds being shifted toward other social programs. They also believed that these same at-risk groups in large concentrations can have negative repercussions for structural variables of the educational system such as they relate to curricula, programs, and class size.

At the state level, it has been found that in states with small school enrollments and lower rates of poverty and percent population that is minority, students have lower dropout rates, while students in states with higher rates of poverty and percent population that is minority have three times higher dropout rates (Fitzpatrick & Yoles, 1992). When examining rural districts in Louisiana, Schafer and Hori (2006) found that there was a positive relationship between the proportion of the student body that was black and higher dropout rates. This aspect is particularly important in this study because the racial makeup of the population under study has the highest rate of minority concentration of any state in the nation.

Hypotheses

The literature indicated that a positive relationship exists between dropout rates and female labor force participation rates, migration rates, percent urban, deviance, student–teacher ratio, poor economic conditions, and race. It is also noted that an inverse relationship exists between dropout rates and religious attendance, economic integration, school funding, and educational attainment for an area. The social environment changes depending on location. It is important to take this into consideration when conducting research. Therefore, having a clearer understanding of what the local environment looks like and what variables may be impacting the dropout rates in that location is needed. As such, making use of a multiple division measure for location such as urbanicity can lead to a

better understanding of what is impacting the dropout rate in one district but not another.

Building on the previous findings in regard to dropout rates and integration, this study tested the following hypotheses:

Hypothesis One: School social integration and dropout rates are correlated at the district level and will vary in direction and magnitude depending on how urbanicity is operationalized.

This hypothesis was tested with six different measures of school social integration and three control variables and three different measures of urbanicity: a) percent urban; b) least, middle, and most urban; and c) rural versus non-rural.

School Integration Independent Variables

1. Disciplinary incidents rate (positively related),

2. Suspension rate (positively related),

3. Absenteeism rate (positively related),

4. Student transfer rate (positively related),

5. Vocational program participation (negatively related),

6. Local funding (negatively related)

School Level Controls

1. Student–teacher ratio (positively related)

2. Free and reduced lunch rate (positively related),

3. Percent of school that is nonwhite (positively related)

Hypothesis Two: Community social integration and dropout rates are correlated at the district level and will increase the proportion of variance explained by the

school-level social integration measures and will vary depending on how urbanicity is operationalized.

This hypothesis was tested by adding 11 different measures of community social integration and three community-level control variables to the variables in Hypothesis One, at three different measures of urbanicity: a) percent urban; b) least, middle, and most urban; and c) rural versus non-rural.

School Integration Independent Variables

1. Disciplinary incidents rate (positively related),
2. Suspension rate (positively related),
3. Absenteeism rate (positively related),
4. Student transfer rate (positively related),
5. Vocational program participation (negatively related),
6. Local funding (negatively related)

School Level Controls

1. Student–teacher ratio (positively related)
2. Free and reduced lunch rate (positively related),
3. Percent of school that is nonwhite (positively related)

Community Integration Independent Variables

1. Female labor force participation (positively related),
2. Divorce rates (positively related),
3. Percent of population that reported not living in the same county on the U.S. Census (positively related),
4. Percent urban (positively related),

5. Percent Catholic (negatively related),

6. Percent of religious adherents to mainline protestant denominations (negatively related),

7. Percent of religious adherents to evangelical protestant denominations (positively related),

8. Percent of religious adherents to other denominations (negatively related),

9. Catholic congregations per 100,000 people (negatively related),

10. Mainline protestant congregations per 100,000 people (negatively related),

11. Evangelical protestant congregations per 100,000 people (positively related),

12. Other congregations per 100,000 (negatively related),

Community Level Controls

1. Per capita income in $1,000 (negatively related),

2. GINI index of income inequality (positively related),

3. Percent of the population with less than a high school diploma (positively related)

Hypothesis Three: Career and technical education program participation as a proxy for economic integration will be inversely related to dropout rates.

This hypothesis was tested by performing weighted least squares regression using the variables mentioned in Hypothesis One and Hypothesis Two at three different measures of urbanicity: a) percent urban; b) least, middle, and most urban; and c) rural versus non-rural.

School Integration Independent Variables

1. Disciplinary incidents rate (positively related),

2. Suspension rate (positively related),

3. Absenteeism rate (positively related),

4. Student transfer rate (positively related),

5. Vocational program participation (negatively related),

6. Local funding (negatively related)

School Level Controls

1. Student–teacher ratio (positively related)

2. Free and reduced lunch rate (positively related),

3. Percent of school that is nonwhite (positively related)

Community Integration Independent Variables

1. Female labor force participation (positively related),

2. Divorce rates (positively related),

3. Percent of population that reported not living in the same county on the

    U.S. Census (positively related),

4. Percent urban (positively related),

5. Percent Catholic (negatively related),

6. Percent of religious adherents to mainline protestant denominations

    (negatively related),

7. Percent of religious adherents to evangelical protestant denominations

    (positively related),

8. Percent of religious adherents to other denominations (negatively related),

9. Catholic congregations per 100,000 people (negatively related),

10. Mainline protestant congregations per 100,000 people (negatively related),

11. Evangelical protestant congregations per 100,000 people (positively related),

12. Other congregations per 100,000 (negatively related),

Community Level Controls

1. Per capita income in $1,000 (negatively related),

2. GINI index of income inequality (positively related),

3. Percent of the population with less than a high school diploma (positively related)

CHAPTER II

DATA AND METHODS

Introduction

This chapter is organized in the following manner. First, a description of the data sources are presented, followed by a brief description of how each of the dependent, control, and independent variables are operationalized. The chapter concludes with a description of the statistical procedures used during data analysis.

Data Sources

Dropout rates as well as all school-related variables come from the Mississippi Student Information System (MSIS) and were obtained from the Mississippi Department of Education (MDE) through a cooperative agreement between MDE and the Research and Curriculum Unit (RCU) at Mississippi State University. MSIS collects data on every student in the state each year and stores the data in a database at the MDE in Jackson, MS. The information that MSIS gathers is taken from each school individually and uploaded to MSIS through one of nine student reporting packages that exists at the various public schools in the state.

Table 1   Summary of Variables Used

Concept	Measure	Source	Year of Data
Dropout Rate	3 Year Average of 7th-12 Dropouts	MSIS	2005-2008
School Integration Measures	Incidents	MSIS	2005-2008
	Suspensions	MSIS	2005-2008
	Absences	MSIS	2005-2008
	Transfers	MSIS	2005-2008
	Vocational	MSIS	2005-2008
	Local	MSIS	2005-2008
	State	MSIS	2005-2008
	Federal	MSIS	2005-2008
Community Integration Measures	% Female Labor Force Participation	2000 US Census	2000
	% 16 and Older Divorced	2000 US Census	2000
	% Different County	2000 US Census	2000
	% Urban	2000 US Census	2000
Religious Traditions Adherents	% Catholic	Census of Churches	2000
	% Mainline Protestant	Census of Churches	2000
	% Evangelical Protestant	Census of Churches	2000
	% Other Denominations	Census of Churches	2000
Congregations per 10,000 Population	Catholic Congregations	Census of Churches	2000
	Mainline Congregations	Census of Churches	2000
	Evangelical Congregations	Census of Churches	2000
	Other Congregations	Census of Churches	2000
School Controls	Student Teacher Ratio	MSIS	2005-2008
	Lunch Status	MSIS	2005-2008
	% Non-White in Schools	MSIS	2005-2008
Community Controls	Percaptia Income in $1,000	2000 US Census	2000
	GINI Index as %	GeoDa	2000
	% Non-White in Community	2000 US Census	2000
	% Less than High School	2000 US Census	2000

District- and county-level population, migration, and socioeconomic

variables are from (a) the 2000 Census of Population and Housing Summary

Tape File (Office of Data Analysis and Management, 2001) and (b) income

inequality as measured by the GINI index taken from the Household Income

Disparity data set from the Arizona State University GeoDa Center for Geospatial

Analysis and Computation. County-level religion data come from the *Churches and Church Membership in the United States, 2000* produced by the Glenmary Research Center (Association of Statisticians of American Religious Bodies, 2002), which is available online at the American Religion Data Archive (www.thearda.com). The specific variables in the analysis, definitions, and source are detailed below.

Population of Study

The population of study for this research is all public school districts in the state of Mississippi (N=151). While Mississippi has 152 school districts, Clay County School District was not included due to it not having a high school.

Dependent Variable

The dependent variable for this study is 3-year district dropout rates from MSIS and the MDE using the event dropout calculation technique. Event dropout in this study is calculated as the percentage of students from the 7th through 12th grades that is classified as dropouts at any time during the school year. The 3-year rate is used to try and improve rate stability as annual dropout rates can vary considerably depending on the population of an area and other factors.

Control Variables

School-Level Student–Teacher Ratio

Debate still exists as to the impact of student–teacher ratio on school performance, particularly dropout rates. Rumberger (1995) found that a link

existed between high student–teacher ratios in poorer schools and higher dropout rates. However, Schafer and Hori (2006) found in their research looking at rural schools in Louisiana that there was no relationship between dropout rates and student–teacher ratio. Then, examining academic achievement, Ainsworth (2002) found that lower student–teacher ratios were related to increased performance on achievement tests and time spent on homework.

Student–teacher ratio will be measured as the average number of students per full-time regular teachers in a school from 2002–2007. This measure will be calculated from the MSIS student data system.

Income Inequality

Income inequality will be measured in two ways in the current research. It will be measured by making use of the GINI index of income inequality (Nielsen, 2002), which has values ranging from zero (no income inequality) to one (complete income inequality). It has been found that in environments where income inequality is high, there tend to be higher rates of social disruption and delinquent behavior such as increased crime, high teen pregnancy rates, increased suicide rates, and increased dropout rates (Ainsworth, 2002; Pample & Williamson, 2001; Walker, 2009).

Inequality will also be measured making use of the percentage of students who have free and reduced lunch status in a district and in the school. At various levels of examination, the percentage of students who have free and reduced lunch status has been shown positively correlated with the dropout rate

(Ainsworth, 2002). Percentage free and reduced lunch will come from the MSIS data system.

Race

Percentage minority status has shown to reduce engagement and increase absences and tardiness in schools (Finn & Voelkl, 1993). Research has also found that blacks in comparison to whites have lower rates of academic achievement (Ainsworth, 2002). The percentage of blacks in a study of rural Louisiana has shown to be positively correlated with the dropout rate at ecological levels of analysis (Schafer & Hori, 2006). In addition, multiple researchers have shown that schools with high percentages of minority student populations tend to have higher dropout rates beyond the effect of individual background characteristics and performance (Goldschmidt & Wang, 1999; Rumberger, 1995).

Because of the fairly limited diversity of racial makeup in the area of study, race will be measured as percentage white and percentage nonwhite. This measure will be taken from the 2000 Census of Population and Housing Summary Tape File (Office of Data Analysis and Management, 2001).

Income

The relationship between income and dropout rates has been measured in a variety of ways: mean family income (Crowder & South, 2003; Ensminger et al., 1997; Harding, 2003), per capita income (Margo, 1986; Myers, 1999), and mean income (Vartanian & Gleason, 1999). As there is no real consistent measure

used, this research will make use of the measure of per capita income, which is

regularly used in social integration research. Using the 2000 U.S. Census

definition of every man, woman, and child, per capita income is expressed in

$1,000 per person and taken from the 2000 Census of Population and Housing

Summary Tape File (Office of Data Analysis and Management, 2001).

Educational Attainment

The impact of community-level educational attainment is not as clear as

would be expected, but some research has shown that at the ecological level a

link does exist between communities that have low levels of education or high

level of adult dropouts and high school dropout rates (Goldschmidt & Wang,

1999; Rosenthal, 1998). While median years of education are available for this

study, previous research has indicated that it is a problematic measure of

educational attainment. According to the Office of Data Analysis and

Management (1991), due to a lack of clarity in the way education level is

collected by the U.S. Census, a number of inconsistencies has been noted. As

such, this research will focus on looking at the percentage of the population that

has less than a high school education taken from the 2000 Census of Population

and Housing Summary Tape File (Office of Data Analysis and Management,

2001).

Independent Variables

Absences/Incidents/Suspensions/Transfers

Negative school environments have shown to be linked to higher rates of dropout. Specifically, schools that have high rates of absenteeism and misbehavior tend to have higher rates of dropout comparatively (Goldschmidt & Wang, 1999). As this is the case, school deviance will be examined using the average number of absences, average number of disciplinary actions, and average number of suspensions. Each will be measured by making a 3-year average of each at the district levels. In addition, student transfer rates will be included as an indicator of student migration and disruption of student residential stability. Transfers will be the average number of transfers to a different district over 3 years. The data will come from the MSIS student data system.

School-Level Economic Integration through Vocational Participation

Because vocational participation can lead to increased employment opportunities, it is an adequate proxy for economic integration at the district and community-levels (Bills & Wicker 2005; Kerckoff & Bell, 1998). Vocational participation is measured as the average number of nonmandatory vocational courses taken by students in a high school.

School-Level Funding

School-level funding has had a mixed role in its relationship with dropout rates depending on the study under review. School-level funding is usually

measured either as the per-student funding a school has or as the percentage of funding a school receives from local, state, and federal sources. Connecting to the social integration concept, it seems that the most appropriate measure to be used in this study is that of local, state, and federal sources. This is because higher rates of local funding would be expected to be indicative of a more integrated environment. Data for this measure come from the MSIS student data system.

Female Labor Force Participation

Female labor force participation rate (FLFP) is defined as the portion of the population that is female and 16 years or older that is economically active, defined as working or seeking work (Bureau of Labor Statistics, 2006). From what can be found by this researcher at the time this study was conducted, the use of female labor force participation in educational research is not very common and is fairly limited (Janosz, LeBlanc, Boulerice, & Tremblay, 1997; Kalmijn & van Groenou, 2005). What is more commonly seen is the number of female-headed households or if a student's mother works (Fitzpatrick & Yoles, 1992). While it is not a common measure in educational research, it is a very common measure in social integration research. As such, this research will make use of the Bureau of Labor Statistics' (2006) definition of FLFP using the percentage of economically active females taken from the 2000 Census of Population and Housing Summary Tape File (Office of Data Analysis and Management, 2001).

Divorce Rate

A number of studies that examine social integration view divorce as the most appropriate indicator of family integration having a positive relationship with social disruption and dysfunction (Chuang & Huang, 1997; Pampel & Williamson, 2001). Research has shown that students who are a young age in a family that is headed by a single person that then becomes married when the students are older are less likely to drop out of high school, particularly Black students. In addition, the same research showed that for white students who are in a household that goes from having married parents when they are 14 years old to divorced parents when they are 18 years old, decreases the likelihood of finishing college (Vartanian & Gleason, 1999). In addition, Johnson, Crosnoe, and Elder (2001) found that coming from an intact family increases students' attachment and engagement in the education system, increasing achievement potential.

Since student-level family structure is not available for this research, the relationship between divorce rates and dropout rates will be tested using the percentage of people age 16 and older who gave the response of divorced to the marital status question on the 2000 Census of Population and Housing Summary Tape File (Office of Data Analysis and Management, 2001).

Migration

Migration is a key indicator of social integration. A person must be in an area to become integrated into it. Residential stability has shown to provide

numerous benefits to educational achievement, engagement, and reducing

dropout rates (Ainsworth, 2002). Migration can be defined multiple ways, but it is

the difference between those who move in and those who move out of a place in

a given period. Migration is measured in a number of ways depending on the

research being conducted. In this research, two different concepts of migration

will be examined. First, as a community-level indicator of migration, migration will

be used and is measured using the 2000 U.S. Census question of do you live in

a different county than you did 5 years ago (Office of Data Analysis and

Management, 2001).

The second measure of migration will be based on the average number of

school changes experienced by children in a district between 2005 and 2008.

This measure will come from the MSIS student data system.

Religion

The role of religion in educational attainment follows a fairly consistent

path of Catholic and private religious schools having higher rates of academic

achievement and lower rates of dropout than secular public schools (Neal, 1997;

Regnerus & Elder, 2003; Willms, 1985). In addition, the role of religion and social

integration has similar traditions with individuals who are more engaged in the

community being part of the Catholic Church and more mainline protestant

denominations (Ellison et al., 1997). This is what is commonly referred to as the

more civically engaged denominations.

A more recent technique that has been used to assess the impact of religion on social integration has been one established by Beyerlein and Hipp (2005) that looks at both the percent of adherents to and congregations per 100,000 population of specific religious traditions based on how they assist in increasing integration in a community (see Appendix and Beyerlein and Hipp, 2005, for a full description of this measure).

Due to the small population density in the area of interest, this variable will be constructed using the number of congregations per 10,000 population to facilitate clearer explanation of the results. Data come from the *Churches and Church Membership in the United States, 2000* produced by the Glenmary Research Center (Association of Statisticians of American Religious Bodies, 2002). Within this data set, there is county-level information on more than 100 religious denominations, presented as the percentage of adherents to each of the categories and congregations of each category.

Urbanicity

Research has shown that there is a fairly consistent relationship between urbanicity and academic achievement, especially as it relates to dropout rates (Finn et al., 2005; Harding, 2003; Vartanian & Gleason, 1999). There are a number of ways to measure urbanicity. Recent research that has examined the roles of urbanicity and social integration has made use of three techniques in particular: a) percent urban; b) a three-division least-, middle-, and most-urban measure; and c) the urban centric locale codes.

The first measure of percent urban comes directly from the U.S. Census; the second comes from collapsing the first into a three-category measure. The third measure, which may not be as helpful in this research due to the fairly limited distribution of population in the study area, involves a 12-division measure based on the urban centric locale codes developed by the United States Bureau of Census and the National Centers for Educational Statistics (NCES). According to NCES, the urban centric locale typology is constructed from urban centric versus metro centric criteria and is therefore free from constraints and issues previously created by metro county boundaries. This measure divides school districts into one of four categories, each with three sub-categories. The categories are city, suburb, town, and rural. Given that the area of interest is predominantly rural, city, suburb, and town were collapsed to create a rural versus non-rural dichotomy. The data to construct these measures come from the 2000 Census of Population and Housing Summary Tape File (Office of Data Analysis and Management, 2001).

Procedures

As mentioned earlier, Mississippi has 152 school districts, but because one of the districts does not have a high school, the effective N for this study is 151 school districts. Since variations in dropout rates are so drastic depending on a number of factors, weighted least squares regression is used weighting the dependent variable by the inverse of the variance of district-level dropout rates. Models were run for the school social integration measures, and then the

community social integration measures were added for the overall model, which included all districts and then additional models for the three different measures of urbanicity to develop a clearer understanding of the relationship between dropout rates and urbanicity.

Weighted least squares regression is also used due to its ability to handle data points of varying quality. This is necessary when dealing with data such as this in which many of the measures are used for accountability purposes so reporting may be skewed. The use of weighted least squares regression allows for situations where not all observations should be treated equally, and as such this allows for one to maximize the efficiency of parameter estimation by giving each observation the proper amount of influence over the parameter estimates. This compensates for methods that would treat all data points as equal in which cases those points that are less precisely measured would have greater influence and those points that were precisely measured would have less influence on the parameter estimations (NIST/SENATECH, 2009).

CHAPTER III

FINDINGS AND RESULTS

Introduction

This chapter is presented in the following format: first, descriptive statistics

for the three models are compared to each other with All Districts using percent

urban (model 1) compared to the 3 Division Percent Urban measure (model 2);

then, All Districts are compared to the 2 Division Rural versus Non-Rural

measure (model 3).   This is then followed by the weighted least squares

regression analyses presented in the same order as the descriptive statistics. All

results are presented in the order of school-level then community-level so as to

highlight the embedded nature of the school in the community. This is followed

by the hypotheses revisited section which draws from the results of the weighted

least squares regression to address the hypotheses stated earlier in chapter I.

Descriptive Statistics

In Table 2, the descriptive statistics for the All Districts measure (column

1) and the 3 Division measure (columns 3, 5, 7) are presented. For all districts,

the overall average dropout rate is 3.07%, but the dropout rate changes as

percentage of the population in urban settings varies. The least urban districts

Table 2   Descriptive Statistics for All Districts and the Three Division
         Percent Urban Models

			3 Division Urban					
	All		Least		Middle		Most	
	N=151		N=50		N=51		N=50	
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
Dropout Rate								
3 Year Average of 7th-12 Dropouts	3.07	1.94	2.74	1.48	3.03	1.57	3.45	2.55
School Integration Measures								
Incidents	0.44	0.37	0.37	0.31	0.51	0.38	0.44	0.42
Suspensions	0.31	0.27	0.26	0.25	0.34	0.26	0.32	0.30
Absences	8.85	1.49	8.57	1.38	9.27	1.58	8.72	1.44
Transfers	0.11	0.05	0.10	0.02	0.11	0.04	0.13	0.08
Vocational	0.70	0.27	0.80	0.30	0.74	0.24	0.57	0.22
Local	24.45	7.83	21.39	4.96	24.48	7.90	27.48	8.98
State	56.26	8.09	59.31	6.09	57.55	7.49	51.88	8.68
Federal	19.29	7.04	19.29	5.76	17.96	5.52	20.63	9.16
Community Integration Measures								
% Female Labor Force Participation	50.86	4.88	48.99	4.02	51.47	4.51	52.10	5.52
% 16 and Older Divorced	9.45	1.91	8.72	1.41	9.39	1.59	10.24	2.32
% Different County	13.93	4.88	14.85	3.62	16.89	4.11	9.98	4.07
% Urban	35.72	34.92	0.45	1.22	27.43	14.67	79.45	14.78
Adherents								
% Catholic	2.96	4.56	1.19	1.28	2.82	4.76	4.88	5.64
% Mainline Protestant	9.99	3.36	9.98	4.04	9.99	3.39	10.00	2.54
% Evangelical Protestant	40.66	13.98	44.80	12.51	39.56	14.99	37.65	13.57
% Other Denominations	0.74	0.87	0.50	0.82	0.77	0.94	0.95	0.78
Congregations per 10,000								
Catholic Congregations	0.61	0.41	0.62	0.50	0.58	0.34	0.64	0.37
Mainline Congregations	6.61	4.19	8.66	4.86	6.55	3.92	4.60	2.46
Evangelical Congregations	16.21	8.13	21.52	7.47	15.23	7.62	11.91	6.19
Other Congregations	0.40	0.48	0.28	0.46	0.41	0.51	0.50	0.44
School Control Variables								
Student Teacher Ratio	15.31	1.82	14.80	1.48	15.71	1.98	15.40	1.86
Lunch Status	66.40	20.96	67.20	20.09	64.66	20.46	67.37	22.57
% Non-White in Schools	58.81	30.67	52.98	33.03	56.44	30.40	67.05	27.13
Community Control Measures								
Percaptia Income in $1,000	14.55	2.47	13.76	1.74	14.34	2.36	15.54	2.88
GINI Index as %	47.73	3.35	47.56	2.73	47.95	3.11	47.68	4.12
% Non-White in Community	41.44	22.06	36.00	20.64	41.39	22.83	46.94	21.68
% Less than High School	19.31	7.34	15.20	3.56	18.08	5.11	24.68	8.80

have the lowest dropout rate of 2.74%, the middle urban districts follow with a

dropout rate of 3.03%, and the most urban districts having the highest dropout

rate of 3.45%. So, the most urban districts have a 25% higher dropout rate than the least urban districts.

Looking at the school measures, the least urban districts have lower rates than the most urban districts on average number of incidents, average number of absences, transfers, local funding, federal funding, average student–teacher ratio, and percent of students that are classified as free or reduced lunch status, and percent students that are nonwhite. The least urban districts have higher rates than the most urban districts for the school measures of average number of vocational courses taken per high school student and percent of state funding.

For the community measures, the least urban districts had lower rates than the most urban districts on female labor force participation, divorce rate, percent urban, percent Catholic adherents, percent other denominations' adherents, Catholic congregations per 10,000 people, other denominations' congregations per 10,000 people, per capita income in $1,000, percent of the community that is nonwhite, and the percent of the adult population with less than a high school diploma. The least urban districts had higher rates on the community measures of the percent of the population that live in a different county than 5 years earlier, percent of the population that is evangelical protestant adherents, the number of evangelical protestant congregations per 10,000 people, and the number of mainline protestant congregations per 10,000

Table 3   Descriptive Statistics for All Districts and the Two Division Rural versus Non-Rural Models

| | All N=151 | | Rural vs. Non-Rural | | | |
| | | | Rural N=85 | | Non-Rural N=66 | |
	Mean	S.D	Mean	S.D	Mean	S.D
Dropout Rate						
3 Year Average of 7th-12 Dropouts	3.07	1.94	2.85	1.76	3.36	2.12
School Integration Measures						
Incidents	0.44	0.37	0.46	0.39	0.43	0.35
Suspensions	0.31	0.27	0.31	0.25	0.31	0.29
Absences	8.85	1.49	8.79	1.51	8.93	1.48
Transfers	0.11	0.05	0.11	0.04	0.12	0.07
Vocational	0.70	0.27	0.78	0.28	0.61	0.22
Local	24.45	7.83	23.69	7.45	25.43	8.25
State	56.26	8.09	57.43	7.96	54.75	8.07
Federal	19.29	7.04	18.87	6.79	19.82	7.37
Community Integration Measures						
% Female Labor Force Participation	50.86	4.88	50.22	4.41	51.68	4.88
% 16 and Older Divorced	9.45	1.91	9.13	1.52	9.86	2.26
% Different County	13.93	4.88	15.66	4.36	11.69	4.62
% Urban	35.72	34.92				
Adherents						
% Catholic	2.96	4.56	2.42	4.18	3.67	4.95
% Mainline Protestant	9.99	3.36	10.02	3.88	9.96	2.56
% Evangelical Protestant	40.66	13.98	42.53	14.58	38.26	12.87
% Other Denominations	0.74	0.87	0.73	0.95	0.75	0.74
Congregations per 10,000						
Catholic Congregations	0.61	0.41	0.61	0.44	0.62	0.36
Mainline Congregations	6.61	4.19	7.19	4.65	5.85	3.39
Evangelical Congregations	16.21	8.13	18.25	8.59	13.59	6.66
Other Congregations	0.40	0.48	0.38	0.51	0.42	0.44
School Control Variables						
Student Teacher Ratio	15.31	1.82	14.97	1.65	15.74	1.94
Lunch Status	66.40	20.96	64.99	20.82	68.21	21.17
% Non-White in Schools	58.81	30.67	52.59	32.09	66.82	26.93
Community Control Measures						
Percaptia Income in $1,000	14.55	2.47	14.36	2.35	14.78	2.62
GINI Index as %	47.73	3.35	47.51	30.60	48.01	3.69
% Non-White in Community	41.44	22.06	36.91	22.38	47.29	20.34
% Less than High School	19.31	7.34	16.89	6.09	22.43	7.68

people. No noticeable difference was seen between the least and most urban districts for the measures of percent mainline protestant adherents and income inequality.

In Table 3, the descriptive statistics for the All District measure (column 1) are presented again along with those for the 2 Division Rural versus Non-Rural dichotomy measure (columns 3 and 6); they follow a similar pattern as noted in the comparison of the least urban to most urban districts. The average dropout rate for rural districts was approximately 18% lower than the non-rural districts 2.85% versus 3.38%. The most notable difference was seen in the variables of the percent of students that were nonwhite (rural=52.59%, non-rural= 66.82%), percent of the population that has moved to a different county (rural=15.66%, non-rural=11.69), percent Catholic (rural=2.42, non-rural=3.67), percent evangelical protestants (rural=42.53, non-rural=38.26), number of evangelical congregations per 10,000 people (rural=18.25, non-rural=13.59), percent of the community that is nonwhite (rural=36.91, non-rural=47.29), and the percent of the population that has less than a high school diploma (rural=16.89, non-rural=22.43).

Weighted Least Squares Regression

The unstandardized regression coefficients for each variable, which indicate the average unit change in percent dropout rate for each unit change in the independent variables, for all districts using the three different measures of urbanicity are shown in Table 4. The coefficients for All Districts using percent

urban as the measure of urbanicity are shown in the first two columns of coefficients. The coefficients for all districts with a dummy coded 3 Division Percent Urban measure of urbanicity with least urban as the reference group are in the middle two columns of coefficients. And the coefficients for all districts using the Rural versus Non-Rural codes dummy coded with non-rural being the reference group are shown in last two columns of coefficients.

For all districts, the school measures of absences, transfers, and free and reduced lunch status are all moderate predictors of dropout rates at the $p < 0.05$ level or greater while percent local funding, student–teacher ratio, and percent of school that is nonwhite were noteworthy at the $p < 0.10$ level. For all districts, the community measures of percent urban, percent mainline protestants, percent other denominations, evangelical protestant congregations per 10,000 people, and other congregations per 10,000 people were all moderate predictors of dropout rates, while percent divorced and percent other denominations were noteworthy at the $p < 0.10$ level. Looking at the community and school measures together, the directions of the coefficients for absences, percent urban, evangelical congregations per 10,000 people, other congregations per 10,000 people, and lunch status are all as hypothesized. The direction of the coefficients for the community and school measures of average number of transfers, percent local funding, percent 16 years old and over divorced, percent mainline protestant adherents, percent other denominations adherents, and percent of school that is nonwhite were all opposite of what was hypothesized.

Table 4. Summary of Weighted Least Squares Regression, 2005-2006 to 2007-2008 Mississippi Public School Event Dropout Rate Dependent for All Districts (N=151)

	ALL DISTRICTS					
	% Urban		3 Division % Urban Dummy		2 Division Urban Influence Dummy	
	School	Community	School	Community	School	Community
Variable	b sig	b sig	b sig	b sig	b sig	b sig
School Integration Measures (05/06-07/08)						
Incidents	0.24	-0.04	-0.21	-0.15	0.33	0.36
Suspensions	0.51	0.72	1.18	0.79	0.55	0.33
Absences	0.39 ***	0.42 ***	0.37 ***	0.39 ***	0.38 ***	0.39 ***
Transfers	-5.07 ***	-8.57 ***	-6.85 ***	-8.802 ***	-5.08 ***	-7.79 ***
Vocational	-0.02	0.26	0.02	0.13	0.12	0.22
Local	0.04 *	0.03 +	0.03 +	0.02	0.03 *	0.02
Community Integration Measures (2000)						
% Female Labor Force Participation		0.02		0.02		0.01
% 16 and Older Divorced		-0.09 +		-0.09		-0.08
% Different County		0.03		-0.01		0.02
% Urban		0.01 **				
Adherents (2000)						
% Catholic		0.11		0.12 *		0.12 *
% Mainline Protestant		0.12 **		0.13 ***		0.14 ***
% Evangelical Protestant		-0.01		0.01		-0.01
% Other Denominations		0.42 +		0.16 *		0.46 *
Congregations/10,000 Population (2000)						
Catholic Congregations		-0.23		-0.29		-0.33
Mainline Congregations		-0.05		-0.06		-0.06
Evangelical Congregations		0.05 *		0.04		0.05 *
Other Congregations		-1.16 ***		-1.29 ***		-1.22 ***
School Controls (05/06-07/08)						
Student-Teacher Ratio	-0.03	0.08 +	-0.04 *	0.08 +	-0.06	0.05
Lunch Status	0.02 *	0.04 **	0.03 **	0.04 **	0.03 *	0.04 **
% Nonwhite in School	-0.01	-0.02 +	-0.02 *	-0.01	-0.02 *	-0.01
Community Controls (2000)						
Percaptia Income in $1,000		0.03		0.02		0.06
GINI Index as %		0.06		0.06		0.05
% Less than High School		-0.02		-0.01		-0.01
3 Division % Urban Dummy (2000)						
Middle Urban			0.51 *	0.39		
Most Urban			0.56 *	0.41		
Rural vs. Non-Rural Dummy (2003)						
Rural					-0.55 **	-0.63 ***
R-Squared	0.47	0.63	0.49	0.65	0.51	0.64

+.10, *.05, **.01, ***.001

Overall, the variables of absences, percent other denominations adherents, and percent mainline protestant adherents provided the greatest unit increase to dropout rates with transfer rate providing the greatest unit decrease. This is contradictory to what is seen in the Beyerlein and Hipp (2005) research that finds mainline protestants as serving an insulating effect against disruptions, but the positive relationship with the number of evangelical protestant

congregations per 10,000 people confirms their findings that show that high rates of evangelical protestant congregations in an area inhibits social integration building, resulting in higher dropout rates.

To further examine the effect of urbanicity and how the manner in which it is measured affects the results, the 3 Division Percent Urban measure of urbanicity using least urban districts as the reference group in a dummy coded regression is shown in Table 4, columns 3 and 4. Looking at only the school-level indicators, the least urban districts have significantly lower dropout rates than both middle and most urban districts; however, this relationship does not hold true once community-level measures are introduced in the model. Once community-level measures are entered into the model, there is no significant difference in least urban districts and middle urban districts or least urban districts and most urban districts.

Moving to a definition of urbanicity based on rural classification in Table 4, the last two columns, the results of a dummy regression using a dichotomous rural versus non-rural classification with rural as the reference group results in rural districts having significantly lower dropout rates in both the school-level measures only and school-level plus community-level measures model with an increase in the magnitude of the coefficient of the rural variable.

As can be seen from Table 4, there is a difference in dropout rates depending on how urbanicity is measured. To clarify this relationship, Table 5 is presented where the base model uses the 3 Division Percent Urban urbanization measure; the first sub-model uses only school-level indicators in the model, and

the second model combines the school-level indicators with the community-level indicators.

The factors affecting dropout rates in Table 5 are not only different from the All Districts model using percent urban but are different from each other and change in magnitude and direction with the addition of community-level indicators in the model. In the least urban model the for school-level only indicators, average number of incidents and average number of absences provide the greatest unit increase in dropout rates. Once community-level indicators are added into the model, average absences provide the greatest unit increase in dropout rates, with percent 16 and older divorced and number of evangelical protestant congregations providing the greatest unit decrease in dropout rates. In this same model, percent other denominations (increase dropout rate) and other denomination congregations (decrease dropout rate) were noteworthy at a $p<0.10$ level.

In the middle urban model, different results are seen with the school indicators only model having no variable significant at the $p<0.05$ level or better, but at the $p<.10$ level absences were related to increased dropout rates, and student–teacher ratio was related to decreased dropout rates. Adding the community-level measures the variables; percent living in a different county, percent other denominations adherents, and percent free or reduced lunch status increased dropout rates at the $p<0.05$ level, and the percent Catholic adherents, percent mainline protestant adherents, and number of other denominations

congregations per 10,000 people decreased the dropout rates at the p<0.05 level. At the p<0.10 level, percent local funding and number of evangelical protestant congregations per 10,000 people decreased dropout rates, and percent urban and percent other denominations adherents increased dropout rates.

Table 5   Summary of Weighted Least Squares Regression, 2005-2006 to 2007-2008 Mississippi Public School Event Dropout Rate Dependent for 3 Division Measure of Urbanicity: Least Urban (N=50), Middle Urban (N=51), and Most Urban (N=50)

	3 Division Percent Urban					
	Least Urban		Middle Urban		Most Urban	
	School	Community	School	Community	School	Community
Variable	b sig	b sig	b sig	b sig	b sig	b sig
School Integration Measures (05/06-07/08)						
Incidents	4.51 *	2.58	-1.75	-1.01	-0.74	0.03
Suspensions	-3.54	-2.38	3.16 +	1.79	1.28 +	1.53
Absences	0.42 **	0.55 **	0.14	0.11	0.56 **	0.92 ***
Transfers	1.08	-4.44	3.05	-4.79	-6.34 **	-16.73 ***
Vocational	0.62	0.73	-0.01	0.13	0.58	-1.01
Local	0.05	0.01	-0.01	-0.08 +	0.06 *	0.02
Community Integration Measures (2000)						
% Female Labor Force Participation		-0.02		0.09		-0.06
% 16 and Older Divorced		-0.38 **		-0.19		-0.05
% Different County		0.01		0.17 **		0.16 *
% Urban		-0.04		0.02 +		0.06 **
Adherents (2000)						
% Catholic		-0.62		-0.01 *		0.17 *
% Mainline Protestant		-0.01		-0.08 **		0.13 **
% Evangelical Protestant		0.02		0.01		-0.09 **
% Other Denominations		1.51 +		0.21 *		0.47
Congregations/10,000 Population (2000)						
Catholic Congregations		-0.02		1.09		-0.87
Mainline Congregations		0.14		0.09		-0.39 *
Evangelical Congregations		-0.05 *		-0.04 +		0.22 *
Other Congregations		-2.91 +		-0.79 ***		-0.59
School Controls (05/06-07/08)						
Student-Teacher Ratio	0.05	-0.11	-0.11 +	-0.08	0.02	-0.29 *
Lunch Status	0.03	0.04	0.03	0.06 **	0.04 +	-0.03
% Nonwhite in School	-0.02	-0.02	-0.01	-0.03	-0.02	0.01
Community Controls (2000)						
Percaptia Income in $1,000		0.22		0.24		0.09
GINI Index as %		0.04		0.11		0.08
% Less than High School		0.12		-0.01		-0.11 *
R-Squared	0.39	0.69	0.35	0.74	0.66	0.89

+.10, *.05, **.01, ***.001

For the most urban districts in the combined school-level and community-level indicators model, the average number of absences percent living in a different county, percent urban, percent Catholic adherents, percent mainline protestant adherent, and number of evangelical congregations per 10,000 people all increased dropout rates at the $p < 0.05$ level. At the same time in this model, average number of transfers, percent evangelical protestant adherents, number of mainline congregations per 10,000 people, student–teacher ratio, and percent of the population with less than a high school education decreased the dropout rate at the $p < 0.05$ level.

It is particularly interesting to examine the difference in the changes in magnitude, direction, and significance that happens to the religion measures between the various levels of urbanicity.

With the rural dummy measure in Table 4 being significant and percent urban still being a significant factor in Table 5 for the most urban districts, approaching significance for the middle urban districts, and lacking significance for the least urban district, an examination of a dichotomous rural versus non-rural measure is presented in Table 6. This is important seeing that the average percent urban for the least urban districts was 0.45%, middle urban districts was 27.43%, and the most urban districts was 79.45%. Since percent urban in the middle districts approached significance, it seems that there may be some districts that would be more appropriate in a rural category while others may be more appropriate in a non-rural category to clarify what is happening in the model.

Table 6   Summary of Weighted Least Squares Regression, 2005-2006 to 2007-2008 Mississippi Public School Event Dropout Rate Dependent for 2 Division Measure of Rural (N=85) versus Non-Rural (N=66)

	Rural vs. Non-Rural						
	Rural				Non-Rural			
	School		Community		School		Community	
Variable	b	sig	b	sig	b	sig	b	sig
School Integration Measures (05/06-07/08)								
Incidents	0.57		0.79		0.55		-1.09	
Suspensions	-0.03		-0.49		0.24	+	2.93	
Absences	0.36	***	0.33	**	0.44	***	0.36	**
Transfers	-3.73	***	-3.89		-0.79		-1.19	
Vocational	0.64	+	0.72	+	0.03		-0.12	
Local	0.05	**	0.04		0.03		-0.04	
Community Integration Measures (2000)								
% Female Labor Force Participation			-0.05				0.02	
% 16 and Older Divorced			-0.25	**			0.01	
% Different County			0.06				0.02	
Adherents (2000)								
% Catholic			0.09				0.14	*
% Mainline Protestant			0.11	+			0.27	**
% Evangelical Protestant			-0.01				-0.03	
% Other Denominations			0.87	*			-0.42	*
Congregations/10,000 Population (2000)								
Catholic Congregations			-0.23				-1.74	*
Mainline Congregations			0.01				-0.15	+
Evangelical Congregations			0.02				0.04	
Other Congregations			-1.69	*			0.07	
School Controls (05/06-07/08)								
Student-Teacher Ratio	0.09		0.19	*	-0.12	*	-0.03	
Lunch Status	0.03		0.04		0.02		0.01	
% Nonwhite in School	-0.02	+	-0.01		0.01		0.01	
Community Controls (2000)								
Percaptia Income in $1,000			0.11				-0.22	
GINI Index as %			-0.01				-0.02	
% Less than High School			-0.01				-0.01	
R-Squared	0.53		0.72		0.43		0.63	

+.10, *.05, **.01, ***.001

In Table 6, urbanicity is measured using a dichotomous rural versus non-rural measure created from the urban influence codes used by the National Centers for Educational Statistics created by the US Bureau of the Census. All

districts that are some other classification than rural were grouped as non-rural, and all that had any type of rural classification were grouped as rural.

It is only at this level that the average number of vocational courses taken by students even begins to approach significance at the $p < 0.10$ level and only for those counties that are classified as rural and positively related to dropout rates. For rural districts using only school-level measures, it is seen that average number of absences and percent local funding are positively related to dropout rates at the $p < 0.05$ level, with average number of transfers being negatively related at the $p < 0.05$ level. In this same model, percent nonwhite in school approached significance at the $p < 0.10$ level and is negatively related to dropout rates. Once community-level measures are added to the model, transfers and local funding are no longer significant, but student–teacher ratio and percent other denominations adherents become significant and positively related to dropout rates at the $p < 0.05$ level, and percent mainline protestant adherents approaches significance at the $p < 0.10$ level.

For non-rural counties, absences and student–teacher ratio were the only significant school predictors. As for community-level indicators, percent Catholic and mainline protestant were positively related to dropout rates while percent other denomination adherents and Catholic congregations per 10,000 people were negatively related.

Taking this closer look at dropout rates based on location helps to illuminate key differences by area of the predictors of dropout rates. As can be seen in the transitions from the All Districts model with dummy coded urban

measures in Table 4 to the 3 Division Percent Urban model in Table 5 on to the Rural versus Non-Rural model in Table 6, the variables that impact dropout rates change depending on how urbanicity or rurality are operationalized.

It is only at these different levels of measurement that one sees that divorce rate only has a significant impact in the least urban environments or the change in the direction and magnitude of coefficients of many of the predictors. And it is only at this diversified level of examination that the impact of vocational education even begins to approach significance. Additionally, a unique situation emerges where the role of student-teacher ratio changes direction in the more urban analyses showing as contradictory to traditional findings.

<div align="center">Hypotheses Revisited</div>

From Table 4, support for Hypothesis One, school-level social integration will be related to dropout rates and will vary depending on how urbanicity is defined, is found. Examination of the 3 Division Percent Urban model in the table shows that with using least urban districts in a dummy coded regression there is a significant difference in the average dropout rate for middle urban districts compared to least urban districts and dropout rates for most urban districts compared to least urban districts. Then in the 2 Division Urban Influence model with rural districts as the reference group in a dummy coded regression, there is a significant difference in the average dropout rates of rural districts compared to non-rural districts.

<div align="center">63</div>

In these models, variables of average number of absences, student–teacher ratio, and percent of student body that were classified as free or reduced lunch status are significant and in the direction that was expected. In these same models, the variables of average number of transfers, percent of funding from local sources, and percent nonwhite in the schools are significant and in the direction expected.

With regards to Hypothesis Two, that community-level social integration will be related to dropout rates and will increase the proportion of variance explained beyond school-level social integration measures and will vary depending on how urbanicity is defined; support is also found in Table 4. In all three models using either weighted least squares regression or ordinary least squares, regression showed an increase in the proportion of variance explained by school-level social integration measures by the addition of community-level social integration measures.

Examination of the 3 Division Percent Urban model in Table 4 shows that by using least urban districts in a dummy coded regression there is no significant difference in the average dropout rate for most urban districts compared to least urban districts or for middle urban districts compared to least urban districts when community-level measures are added to the model, but variance explained is increased. The direction of influence also changes when community-level measures are added. Then in the 2 Division Urban Influence model with rural districts as the reference group in a dummy coded regression, there is a

significant difference in the average dropout rates of rural districts compared to non-rural districts, and variance explained is increased.

The school-level measures presented in Hypothesis One were the same in significance and directions except for percent local funding, student–teacher ratio, and percent nonwhites in school, but for the Percent Urban model all three of them did approach significance at a p<0.10 level.

In these models, the community-level measures of percent urban, percent mainline protestant adherents, evangelical protestant congregations per 10,000 people, and percent other congregations per 10,000 people are significant and in the direction expected. The measures of the percent 16 years or older and divorced and percent Catholic adherents are significant but in the opposite direction that was expected.

Further evidence to support Hypothesis One and Hypothesis Two is found by examining the various urbanicity models. Table 5 shows the weighted least squares regression models for each of the three divisions of least, middle, and most urban districts, and Table 6 shows weighted least squares models for the rural and non-rural districts. In both of these tables, the variables that present as significant vary in magnitude and direction depending on the level of urbanicity for both the school-level's and community-level's measures of social integration.

It can be concluded from the models that as the level of urbanicity increases, the dropout rate increases significantly. This is consistent with the findings of previous research concerning social integration reducing due to urbanization and weak social bonds that exist in very urban areas.

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As for Hypothesis Three, that vocational education participation will be related to increased integration due to the effect on economic standing from career training; no significant support was found. The relationship between vocational education and dropout rates did approach significance, however, at the $p < 0.10$ level in the most rural districts in the two division models in Table 6, but the direction was not as expected with an increase in the average number of vocational courses taken by a student being positively related to dropout rates. This could be due to schools in rural areas having limited services for students at all ability levels, resulting in students that want to be in something that is not an academic class, thus being placed in vocational programs. It could also be related to students participating in a program and gaining job skills and thinking they are prepared for the real world and leaving high school prior to finishing.

CHAPTER IV

CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

Conclusions

A number of conclusions can be drawn from this research, but two of the

most important are that dropout rates increase as urbanicity increases varying

depending on how urbanicity is measured and that the use of community-level

social integration measures consistently increases the variance explained above

and beyond what school-level measures alone explain. What is important is not

so much which urbanicity measure had the most predictive power but that the

school and community-level integration variables that explained the dropout rates

changed from model to model based on how urbanization was operationalized.

This is important to understand when determining group level interventions for an

area.

The importance of how urbanicity is operationalized can be seen in how in

every model that used a multiple division measure of urbanicity, as urbanicity

increased the number of variables that presented as significant increased. While

the actual value of R-square is not directly interpretable, the trend in the change

in R-square at the school-level ranged from a low of 0.35 to a high of 0.66 and at

the community plus school-level from a low of 0.63 to a high of 0.89. It is also interesting to look at how much the R-square changes from the school-level only to community and school-levels combined depending on how urbanicity is operationalized with the lowest difference being 0.09 and the greatest difference being 0.39.

Additionally, it is important to understand that it is not just individual level indicators that impact the likelihood of a student succeeding in school but the overall makeup of the school and community in which the child is receiving an education. It is important that people understand that not every intervention that impacts the likelihood of a student being successful in school necessarily be related to the school. Many times some of the factors that impact success or failure are occurring outside the classroom at a more ecological level such as district-level policies or concentrated problem areas in the community.

Relating findings back to previous research and the school-level measures used in this study, the role of deviance in the system as it relates to dropout rates was only found in relation to absenteeism rates in this study. This supports findings by Smyth (1999) that a school with a low absenteeism rate is indicative of a much more functional environment in the broader social context.

Looking at the results related to transfer rates, these results contradicted what was expected and reported in the literature. Increases in transfer rates were consistently related to lower dropout rates. While contradictory to what one would expect, a possible explanation for this could be related to the fact that some parents learn how to manipulate the system so that if their children are failing in

one school they can transfer to another district where their children can pass and then transfer back to the original school.

As for local funding and its role, the results of this study were contrary to what was expected and followed the Fitzpatrick and Yoles (1992) findings that showed lack of consistency when local funding was used as a measure in predicting dropout rates. In this study in models that local funding was significant in, it was always related to higher dropout rates. An explanation for this that is unique to Mississippi is that counties control the millage rates and have free range of increasing them each year, and since the poverty rate in Mississippi is so high across the state, the increase in local funds is not related to an increased desire to fund the schools by the local people but rather simply an artifact of a dysfunctional economic policy.

As for the school-level controls of student–teacher ratio and free and reduced lunch status, they were consistent with prior research that has shown an insulating effect of lower student–teacher ratios and a deleterious effect on dropout rates related to high rates of free and reduced lunch status students. With the exception that in the most urban areas in a couple models the role of student—teacher ratio was contradictory to previous research.

Connecting back to previous research that relates ecological or community-level measures to school dropout rates and the results of this research, one of the most intriguing findings to this research is the relationship between divorce rates and dropout rates in rural areas. Consistently in all models in the most rural areas, the percent of population divorced was inversely related

to the dropout rate, so as divorce rate increased, the dropout rate decreased. This is consistent with Battle's (1997) findings that found when socioeconomic status is controlled for on average African-American children that were below the mean socioeconomic level and came from a divorced home scored significantly higher on standardized tests than more financially stable counterparts. This is of particular interest in this study seeing that to graduate from high school in Mississippi, the state requires the passing of four different standardized subject area tests, and Mississippi has the highest concentration of African-Americans in the country.

The results related to migration were also consistent in that as the proportion of the population that changed county of residency increased, the dropout rates increased. This was consistent with prior research conducted by Myers (1999) that showed that residentially stable families are more socially integrated leading to a pathway toward integration for their children.

As for the result related to the religious measures, the findings using the dummy coded regressions had consistent findings with previous research in relation to the number of evangelical Protestant congregations per 10,000 people and other congregations per 10,000 people and integration. According to Beyerlin and Hipp (2005), areas with high rates of evangelic congregations tended to have lower overall integration while areas with higher rates of non-evangelic congregations had higher integration. So in the dummy coded models as the number of evangelical congregations in an area increases dropout rates increase due to a lack of integration.

None of the community-level controls were significant in any of the models, except for in the most urban districts, where as the percent of the population with less than a high school diploma increased, the dropout rate decreased. This goes against all expectations, but one could assume that it is related to the fact that in more urban environments to obtain employment one has a larger pool of applicants to compete with making it necessary to have a higher level of education. In addition, in the urban environment the negative effects of not having an education are made much clearer highlighting the differences between the haves and have nots, so if the have nots are much more oblivious to the overall population, they will serve as an example of what is needed to be done to not end up in the same situation, which in this case is complete high school so one does not end up as a have not. In more rural environments, this is not as much the situation because the differences between the haves and have nots are not nearly as obvious.

Limitations

With ecological level studies, there are always certain limitations that have to be acknowledged and dealt with, and this one is no different. One of the primary limitations of this study is that there is no consistent method to calculate a dropout rate that translates across all states making results of this study, as conducted currently, limited to Mississippi. Also, as of the time this study was conducted a number of the school-level measures that were used or could have been used had inherent problems due to how the data were collected. This is

due to nine different data systems feeding into one. A prime example of a measure that was used that could be made stronger was absences. Absences that are collected by MSIS do not take into consideration a student that comes in later in the day or the fact that individual schools have their own definitions of what an absence versus a tardy is.

As this research was conducted, there were no other studies that the researcher could locate that made use of these particular multi-level ecological measures to evaluate the relationship between dropout rates and social integration. Most previous studies that were found made use of individual level measures of the aggregated measures used in this study, making it increasingly difficult to draw connections to prior research.

Recommendations

The number one recommendation that can come from this research is that it is necessary to not make broad assumptions about the results of one study especially when the lower level aggregates of the population of interest are not examined thoroughly. It is necessary to make sure the level of analysis is taken into consideration to prevent fault assumptions from being presented as truth.

With the current push by the federal government to establish consistent reporting methods for school accountability through the use of P-16 or P-20 data systems, research similar to this could be conducted at a national level with much more consistently measured and greater variety of variables. Also, with this decade being the first that data on such a scale as this has been collected by

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Mississippi and other states and the next U.S. Census is just around the corner, it would be interesting to conduct this study again in a few years to see if findings hold true when the ecological community-level variables are collected more closely to the time frame of the dropout rate that is used.

Also the role of relationship between religion and schools would be of interest to look into further. This is particularly important given that faith-based programs have received so much attention in the past decade. Even here in the state of Mississippi, programs that are designed to focus on getting children to want to go to college like Gear Up Mississippi have separate funding set aside in their grants to provide services through faith-based programs. Therefore, it is important to determine what impact a religious environment has on dropout rates and other student academic successes or failures before we put too much faith in faith-based programs.

Additionally, in a world that has become more and more infatuated with maps, spatial analysis of this data would be of interest, particularly due to the wide variations in results based on various urbanicity measures used in this study. Using spatial analysis to look at dropout rates as a societal problem in the same way social scientists have used spatial analysis to examine things like morbidity and mortality as a social problem to determine where to implement public health campaigns would be of benefit. This would allow for analyses that are used to create focused dropout prevention campaigns based on the community-level indicators that present as especially detrimental or beneficial to the dropout rate in an area.

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This type of research could be expanded to examine dropout rates at the university or community college level as well. Additionally, instead of looking at dropout rates, graduation rates could be examined using similar techniques.

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APPENDIX A

LISTING OF THE CONGREGATIONS COMPOSING THE RELIGIOUS

TRADITIONS MEASURES

Four Division Religious Traditions (Beyerlein & Hipp, 2005)

Evangelical Protestant Traditions

Advent Christian Church
Allegheny Wesleyan Methodist Connection
American Baptist Association, The
Amish; Other Groups
Apostolic Christian Church of America, Inc.
Apostolic Christian Churches (Nazarean)
Apostolic Lutheran Church of America
Assemblies of God
Associate Reformed Presbyterian Church
Association of Free Lutheran Congregations, The
Baptist General Conference
Baptist Missionary Association of America
Barren River Missionary Baptists
Beachy Amish Mennonite Churches
Berean Fundamental Church
Bethel Ministeral Association, Inc.
Bible Church of Christ, Inc.
Bohemian and Moravian Brethren
Brethren Church (Progressive)
Brethren Church, The (Ashland, Ohio)
Brethren In Christ Church
Bruderhof Communities, Inc.
Calvary Chapel Fellowship Churches
Central Baptist Association Ministries
Christ Catholic Church
Christian and Missionary Alliance, The
Christian Brethren
Christian Catholic Church
Christian Churches and Churches of Christ
Christian Reformed Church in North America
Christian Union
Christian Unity Baptist Association
Church of God (Anderson, Indiana)
Church of God (Apostolic)
Church of God (Cleveland, Tennessee)
Church of God (New Dunkards)
Church of God (Seventh Day)
Church of God General Conference
Church of God in Christ, Mennonite
Church of God of Prophecy

Church of God, Mountain Assembly, Inc.
Church of the Brethren
Church of the Lutheran Brethren of America
Church of the Lutheran Confession
Church of the Nazarene
Churches of Christ
Churches of God, General Conference
Conference of the Evangelical Mennonite Church
Congregational Holiness Church
Conservative Baptist Association of America
Conservative Congregational Christian Conference
Conservative Mennonite Conference
Cumberland Presbyterian Church
Duck River and Kindred Baptists Associations
Eastern Pennsylvania Mennonite Church
Enterprise Baptists Association
Estonian Evangelical Lutheran Church
Evangelical and Reformed Church
Evangelical Church, The
Evangelical Congregational Church, The
Evangelical Covenant Church, The
Evangelical Free Church of America, The
Evangelical Lutheran Synod
Evangelical Mennonite Church
Evangelical Methodist Church
Evangelical Presbyterian Church
Evangelical United Brethren Church
Fellowship of Evangelical Bible Churches
Fellowship of Fundamentalist Bible Churches
Fire Baptized Holiness Church, (Wesleyan), The
Free Methodist Church of North America
Fundamental Methodist Conference, Inc.
General Association of General Baptists
General Association of Regular Baptist Churches
General Six Principle Baptists
Grace Brethren Churches, Fellowship of
Holiness Church Of God, Inc., The
Holiness Methodist Church
Hutterian Brethren
Independent Free Will Baptists Associations
Independent Fundamental Churches of America
Independent, Charismatic Churches
Independent, Non-Charismatic Churches
International Church of the Foursquare Gospel
International Churches of Christ

International Council of Community Churches
International Pentecostal Church of Christ
International Pentecostal Holiness Church
Interstate & Foreign Landmark Missionary Baptists Association
Jasper Baptist and Pleasant Valley Baptist Associations
Landmark Missionary Baptists, Independent Associations and Unaffiliated
Churches
Life and Advent Union
Lumber River Annual Conference of the Holiness Methodist Church
Lutheran Church--Missouri Synod
Mennonite Brethren Churches, U.S. Conference of
Mennonite Church
Mennonite Church USA
Mennonite Church, The General Conference
Mennonite; Other Groups
Midwest Congregational Christian Fellowship
Missionary Bands of the World, Inc.
Missionary Church Association
Missionary Church, The
National Association of Free Will Baptists
Netherlands Reformed Congregations
New Hope Baptist Association
New Testament Association of Independent Baptist Churches and other
Fundamental Baptist Associations/Fellowships
North American Baptist Conference
Old Order Amish Church
Old Order Mennonite
Old Order River Brethren
Old Regular Baptists
Old" Missionary Baptists Associations
Open Bible Standard Churches, Inc.
Original Free Will Baptists
Orthodox Presbyterian Church, The
Pentecostal Church of God
Pentecostal Free Will Baptist Church, Inc.
Pilgrim Holiness Church
Presbyterian Church in America
Primitive Advent Christian Church
Primitive Baptist Churches--Old Line
Primitive Baptists Associations
Primitive Baptists, Eastern District Association of
Primitive Methodist Church in the USA
Progressive Primitive Baptists
Protestant Reformed Churches in America
Reformed Baptist Churches

Reformed Episcopal Church
Reformed Mennonite Church
Reformed Presbyterian Church of North America
Reformed Presbyterian Church, Evangelical Synod
Reformed Zion Union Apostolic Church
Regular Baptists
Salvation Army, The
Separate Baptists in Christ
Seventh Day Baptist General Conference, USA and Canada
Seventh-day Adventist Church
Slovak Evangelical Lutheran Church
Social Brethren
Southern Baptist Convention
Southern Methodist Church
Southwide Baptist Fellowship
Stauffer Mennonite Church
Strict Baptists
The Protestant Conference (Lutheran)
Truevine Baptists Association
Two-Seed-in-the-Spirit Predestinarian Baptists
Unaffiliated Conservative Amish Mennonite Church
United Baptists
United Christian Church
United Missionary Church
United Presbyterian Church of North America
United Reformed Churches in North America
Vineyard USA
Volunteers of America
Wayne Trail Missionary Baptist Association
Wesleyan Church, The
Wisconsin Evangelical Lutheran Synod

Mainline Protestant Traditions

American Association of Lutheran Churches
American Baptist Churches in the USA
American Evangelical Lutheran Church
American Lutheran Church, The
Augustana Evangelical Lutheran Church
Central Yearly Meeting of Friends
Christian Church (Disciples of Christ)
Church of the United Brethren in Christ
Congregational Christian Churches
Congregational Christian Churches, Additional (not part of any national CCC body)

Episcopal Church
Evangelical Lutheran Church
Evangelical Lutheran Church in America
Evangelical Lutheran Church in America (Eielsen Synod)
Evangelical Lutheran Churches, Association of
Finnish Evangelical Lutheran Church (Suomi Synod)
Five Years Meeting of Friends
Friends (Quakers)
Latvian Evangelical Lutheran Church in America
Lutheran Church in America
Moravian Church in America
Moravian Church in America--Alaska Province
Moravian Church in America--Northern Province
Moravian Church in America--Southern Province
National Association of Congregational Christian Churches
Oregon Yearly Meeting of Friends Church
Pacific Yearly Meeting of Friends
Presbyterian Church (U.S.A.)
Presbyterian Church in the U.S.A.
Presbyterian Church in the United States
Reformed Church in America
Reformed Church in the United States
Religious Society of Friends (Conservative)
Religious Society of Friends (General Conference)
Religious Society of Friends (Philadelphia and Vicinity)
Schwenkfelder Church
United Church of Christ
United Evangelical Lutheran Church
United Lutheran Church in America
United Methodist Church, The
United Presbyterian Church in the United States of America
United Zion Church
Unity of the Brethren
Universal Fellowship of Metropolitan Community Churches

Other Denominations

All other religious traditions listed except for Catholic

APPENDIX B

SUMMARY TABLES OF EXPECTED DIRECTION AND SIGNIFICANCE FOR

VARIABLES EXAMINED

Table B.1. Summary of Expected Direction and Significance of Variables Examined for the All Districts Model Using Percent Urban

Variable	Expected Direction	All Districts			
		School		Community	
		Direction Supported	Significant	Direction Supported	Significant
School Integration Measures (05/06-07/08)					
Incidents	+	Yes	No	No	No
Suspensions	+	Yes	No	Yes	No
Absences	+	Yes	Yes	Yes	Yes
Transfers	+	No	Yes	No	Yes
Vocational	-	Yes	No	No	No
Local	-	No	Yes	No	Approach
Community Integration Measures (2000)					
% Female Labor Force Participation	+			Yes	No
% 16 and Older Divorced	+			No	Approach
% Different County	+			Yes	No
% Urban	+			Yes	Yes
Adherents (2000)					
% Catholic	-			No	No
% Mainline Protestant	-			No	Yes
% Evangelical Protestant	+			No	No
% Other Denominations	-			No	Approach
Congregations/10,000 Population (2000)					
Catholic Congregations	-			Yes	No
Mainline Congregations	-			Yes	No
Evangelical Congregations	+			Yes	Yes
Other Congregations	-			Yes	Yes
School Controls (05/06-07/08)					
Student-Teacher Ratio	+	No	No	Yes	Approach
Lunch Status	+	Yes	Yes	Yes	Yes
% Nonwhite in School	+	No	No	No	Approach
Community Controls (2000)					
Percaptia Income in $1,000	-			No	No
GINI Index as %	+			Yes	No
% Less than High School	+			Yes	No

Table B.2. Summary of Expected Direction and Significance of Variables
Examined for the 3 Division Percent Urban Measure of Urbanicity

Table B.3. Summary of Expected Direction and Significance of Variables Examined for the 2 Division Rural versus Non-Rural

Variable	Expected Direction	Non-Rural School Direction	Non-Rural School Significant	Non-Rural Community Direction	Non-Rural Community Significant
School Integration Measures (05/06-07/08)					
Incidents	+	Yes	No	No	No
Suspensions	+	Yes	Approach	Yes	No
Absences	+	Yes	Yes	Yes	Yes
Transfers	+	No	No	No	No
Vocational	-	No	No	Yes	No
Local	-	No	No	Yes	No
Community Integration Measures (2000)					
% Female Labor Force Participation	+			Yes	No
% 16 and Older Divorced	+			Yes	No
% Different County	+			Yes	No
Adherents (2000)					
% Catholic	-			No	Yes
% Mainline Protestant	-			No	Yes
% Evangelical Protestant	+			No	No
% Other Denominations	-			Yes	Yes
Congregations/10,000 Population (2000)					
Catholic Congregations	-			Yes	Yes
Mainline Congregations	-			Yes	Approach
Evangelical Congregations	+			Yes	No
Other Congregations	-			No	No
School Controls (05/06-07/08)					
Student-Teacher Ratio	+	No	Yes	No	No
Lunch Status	+	Yes	No	No	No
% Nonwhite in School	+	Yes	No	No	No
Community Controls (2000)					
Percaptia Income in $1,000	-			Yes	No
GINI Index as %	+			No	No
% Less than High School	+			No	No