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Bringing the Community Back In: the Mediating Role of Civic Community in the Socioeconomic Disadvantage and Homicide Relationship in Rural and Urban Counties, 1980--1990.

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BRINGING THE COMMUNITY BACK IN: THE MEDIATING ROLE OF CIVIC COMMUNITY IN THE SOCIOECONOMIC DISADVANTAGE AND HOMICIDE RELATIONSHIP IN RURAL AND URBAN COUNTIES, 1980-1990

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ABSTRACT

One key explanation of aggregate rates of homicide in localities across the U.S. is social disorganization theory. This theory posits that disadvantaged neighborhoods lack the social and economic resources to exert social control on community residents. One shortcoming of this approach is that it cannot adequately explain urban-rural differences in African American homicide victimization. While African Americans in rural areas experience similar or even more extreme levels of disadvantage than their urban counterparts, the risk of homicide for rural African Americans is significantly lower. To address this shortcoming, I develop a conceptually different, although complimentary, explanation of violence grounded in civic community theory. The civic community perspective identifies two institutions, small business and religious, that provide community-level social control.

This study evaluates the validity of both theories and examines the manner in which these explanations of crime operate independently and in concert with one another in rural and urban counties in the U.S. I test these models with race disaggregated data from the Uniform Crime Reports Supplementary Homicide Report Victim File and U.S. Census, as well as supplementary data from County Business Patterns, and Census of Churches. I examine the cross-sectional and longitudinal nature of the relationship between socioeconomic disadvantage, civic community, and homicide for African Americans and whites from 1980 to 1990. The findings indicate that civic community indicators have both direct impacts on homicide victimization and mediate the relationship between measures of socioeconomic disadvantage and homicide for African

Americans and whites in 1990. These relationships, however, vary for urban and rural counties. Initial 1980 levels of civic community are associated with declines in homicide during the 1980's for African Americans and whites. For African Americans, growth in the number of churches per 1000 members is associated with declines in homicide victimization during the 1980's. I discuss implications for theories of aggregate levels of crime, research, and public policy in the concluding section.

CHAPTER 1: INTRODUCTION

During the past decade researchers studying crime in the U.S. have devoted a great deal of effort to examining race-specific rates of homicide across metropolitan areas in the U.S. These studies have been fueled by reports from the Uniform Crime Reporting System that indicate extreme discrepancies between African American and white homicide rates (UCR 1997). In 1997, 62.5% of all homicides in the largest cities in the U.S. were committed by African Americans, while white perpetrators accounted for only 36%. These numbers are also representative of the U.S. as a whole, where African Americans accounted for 56.4% of all homicides victims. The problematic issue underlying these statistics is that African Americans comprised only 25% of the population in central cities and 14% of the total U.S. population in 1990. In stark contrast to urban areas, the rural portion of the U.S. exhibits a clearly divergent pattern.[1] In 1997, African Americans in rural counties accounted for only 33.7% of all homicide arrests, while whites comprised 61.4% of persons arrested for homicide.

Because explanations of aggregate rates of homicide often rely on socioeconomic deprivation as the key causal mechanism, the contrast between race-specific rates of crime in urban and rural areas is of particular interest. Following this rationale, African Americans in rural areas should experience substantially higher rates of crime than their urban counterparts, since rural African Americans often experience more severe socioeconomic hardship. For example, in 1990 50% of rural African Americans lived in

[1] I use the term "rural" to refer to the nonmetropolitan portion of the United States and urban to refer to metropolitan counties in the U.S.

poverty as defined by the Bureau of the Census while 30% of African Americans in central cities experienced poverty. Likewise, we find large disparities in educational attainment. Forty-seven percent of rural African Americans over the age of 25 do have a high school diploma, while 72% of African Americans in central cities throughout the U.S. have graduated from high school.

Researchers studying the disparate homicide rate for urban African Americans cite the concentration of disadvantage in specific neighborhoods within urban communities as a leading causal factor. This line of research, developed from the social disorganization perspective, argues that the concentration of socioeconomic deprivation leads to two related outcomes. First, socioeconomic deprivation results in diminished community attachment and weakened social ties (Sampson and Groves 1989). Thus, deprived communities often lack the social resources to exert social control on community members, resulting in higher levels of crime. Second, the out-migration of the middle class from inner city neighborhoods and residential segregation has resulted in limited access to mainstream norms or legitimate employment opportunities for African Americans (Wilson 1987, Massey and Denton 1993). The most severe outcome of this process is the adoption of cultural values that promote the use of violence as a means to status attainment or a "code of the streets" mentality (Anderson 1994).

The handful of studies that have examined aggregate rates of crime in rural areas has relied on similar theses. These studies report that socioeconomic disadvantage has a significant impact on rates of crime, especially when coupled with high rates of in and out-migration (Osgood and Chambers 2000, Barnett and Mencken 2000). While these

studies are informative and provide support for the applicability of the social disorganization arguments to rural areas, the existing body of research on crime in rural areas is limited. Primarily, no study to date has examined race-specific rates of crime outside of the metropolitan context. This is problematic in that the analyses of crime rates that do not take race into consideration can yield misleading results because the effect of socioeconomic measures on crime rates often vary substantially by race (Harer and Steffensmeier 1992).

In addition, studies of crime in rural settings have not addressed issues of concentrated disadvantage even though studies of rural poverty have alluded to the existence of concentrated disadvantage (Fitchen 1993, Snipp 1993). Duncan (1999) also notes that African Americans in the rural South possess few network ties to the broader white community, lower levels of education, and similar patterns of female headship found in urban areas. While none of these studies examines the link between concentrated disadvantage and violence or crime, many of the same predictors of poverty, such as single parent families, have been associated with crime rates.

Given the similarities shared by urban and rural African Americans and findings indicating that rural African Americans experience more severe rates of socioeconomic disadvantage, one would expect that rural African Americans would exhibit rates of homicide similar to their urban counterparts. However, this is clearly not the case. The incidence of homicide proximate to 1990 indicates that rural African Americans have a substantially lower rate of homicide victimization (16.5 per 100,000) than African Americans residing in central cities (50 per 100,000) (Uniform Crime Reports 1990).

This discrepancy raises the question of whether social disorganization arguments explaining race-specific crime apply to rural locales. Additionally, social disorganization studies of urban areas find inconsistent results for the effect of socioeconomic deprivation on crime (Harer and Steffensmeier 1992; Peterson and Krivo 1993).

It is important to note that researchers studying crime from a social disorganization perspective implicitly argue that neighborhood-level characteristics, such as stability and informal social control mechanisms, are critical factors in explaining the consequences of concentrated disadvantage. The central problem with this line of reasoning is that the neighborhood is explicitly theorized as an independent unit of social control. Proponents of social disorganization theory have not focused on the broader community context in which neighborhoods exist. Aspects of the broader community, such as economic organization and social institutions, have a clear impact on the resources available to all community residents. Integrating the community context into social disorganization studies of crime may help to explain contradictory findings of previous research because community institutions can buffer the relationship between disadvantaged neighborhoods and crime.

One line of research examining these community structures is the civic community tradition. Civic explanations of community outcomes examine the role of social and economic institutions. The central thesis motivating this perspective is that civic communities are organized around locally oriented economic institutions and social institutions that produce community cohesion, such as churches.

Researchers applying the civic community approach argue that these community characteristics are positively related to beneficial socioeconomic outcomes. The few empirical studies that have been conducted on this topic provide support for the civic community thesis. Tolbert, Lyson, and Irwin (1998) found that for U.S. counties in 1990, the percentage of the population attending civically engaged churches is significantly associated with lower levels of overall inequality, poverty, and unemployment. Irwin, Tolbert, and Lyson (1997, 1999) demonstrate that church membership reduces out-migration. Findings by Greeley (1997) also demonstrate that churches serve as an important source of voluntary association.

With respect to locally oriented economies, a classic study of manufacturing communities provides additional support. During World War II, C. Wright Mills and Melville Ulmer (1946) compared socioeconomic well-being in communities economically organized around small and large manufacturing and found that those communities characterized by small business enjoyed a greater level of socioeconomic well-being. The primary argument in their study is that resident owners are more engaged in community affairs and, thus, more active in community problem solving activities.

The theme underlying this line of research is the conceptual link between locally oriented businesses and community conditions. Local orientation provides a business environment that is both embedded in the community and entwined into the conditions of local residents. Locally oriented businesses are also tied the locality. Thus, the place of business and labor reside in the same locality where both parties are subjected to similar conditions. Where the business orientation is external to the community and production

occurs on a large scale, ownership and labor are often spatially isolated from one another and there is little convergence between the interests of community well-being and ownership. In sum, when business orientation is local, capital is tied to the community and less likely to relocate.

Both the presence of churches and a locally oriented economy have a logical connection to levels of crime in communities. Churches provide an arena for networking and establishing informal social control mechanisms among community members. These outcomes regulate the behavior of residents thereby lowering the levels of crime. Local orientation relates to levels of crime in three ways. First, locally oriented businesses are associated with lower levels of poverty and attendant social disorganzation. Second, local business persons have a vested interest in minimizing community problems, such as crime, because they both live and work in the community. These business persons also serve as role models that represent legitimate means of status attainment. Finally, local business persons participate in community "problem solving" through participation in volunteer organizations thereby enhancing community well-being (Lyson and Young 2000).

A civic community explanation of crime also provides a perspective for understanding the urban/rural difference in rates of African American homicide. While the presence of civic institutions should reduce levels of crime in all communities, civic institutions should have a greater effect on rural communities where network ties are organized around the family and neighbors within the spatially bound community (Beggs,

Haines, and Hurlbert 1996). Thus, residents of rural communities may be more tightly linked to the broader community institutions that enhance social control.

In this study I test two general hypotheses related to race-specific rates of crime in rural and urban areas. First, I test the hypothesis that the presence of churches and locally oriented businesses is directly related to lower levels of race-specific crime. Second, I examine the indirect effects of the presence of churches and locally oriented businesses on crime by testing the hypothesis that the presence of civic community mediates the relationship between concentrated disadvantage and race-specific rates of crime. To address this issue I examine data circa 1990 to assess the cross sectional nature of these hypotheses. I also examine changes in civic community indicators and crime from 1980 to 1990 to further explore these hypothesized relationships. For both the cross-sectional and longitudinal analyses I examine race-specific arrest data from the Uniform Crime Reports and data from the U.S. Census of Population and Housing, County Business Pattens, and Census of Churches and Religious Bodies.

Examining these issues provides two clear benefits to the study of aggregate levels of crime and theories of civic community. First, this study identifies the correlates of race-specific rates of crime in rural areas. To date, this issue has not been addressed in the literature on criminology or rural sociology. Second, the theoretical framework applied in this work integrates the presence of community institutions into analyses of crime. Current formulations of social disorganization theory argue that concentrated disadvantage and economic deprivation undermine the ability of a neighborhood to bond and develop informal social control mechanisms. Studies applying social disorganization

theory do not account for the effects of community institutions that may provide social control mechanisms and resources to disadvantaged neighborhoods. This study provides a framework for conceptualizing a link between the presence of churches, locally oriented economies, and crime.

In the next chapter I provide a literature review that addresses two questions: 1) How are socioeconomic deprivation and concentrated disadvantage linked to higher rates of crime in urban and rural areas?, and 2) How does civic community theory provide a framework for the explanation of crime rates? Chapter 3 provides a detailed explanation and descriptive analysis of the variables in the analysis. Chapter 4 presents results from the cross-sectional analysis and Chapter 5 presents findings from the longitudinal model. Chapter 6 reports conclusions from the study, summarizes research findings, indicates how these findings bear on our existing understanding of the social disorganization model, and offers direction for future research.

CHAPTER 2: LITERATURE REVIEW

The Problem: Situating the Neighborhood in the Community

One explanation of aggregate rates of crime for both rural and urban communities is the current formulation of the social disorganization perspective. This theory posits that rates of crime within neighborhoods are directly related to the amount of *socioeconomic deprivation* among residents. *Socioeconomic deprivation* is often measured by the level of poverty, unemployment, high school dropouts, and female headed households. Neighborhoods with deprived populations have lower levels of residential stability and community cohesion inhibiting the development of informal social control networks. More recently, this approach has been refined by the concept of *concentrated disadvantage*. *Concentrated disadvantage* refers to the geographic distribution of socioeconomic deprivation among neighborhoods. For example, if a vast majority of the poor persons reside in a single neighborhood, deprivation is highly concentrated. Urban studies employing the concept of concentrated disadvantage argue that changes in the structure and location of manufacturing activities in the central city combined with residential segregation have focused the majority of the all socioeconomic disadvantage into specific neighborhoods in the city. Concentration of disadvantage reinforces the inability of disadvantaged neighborhoods to create social control mechanisms.

The central problem in this line of reasoning is that neighborhoods are not conceptualized as part of a broader community or locality. Social disorganization theory does not integrate broader institutions, such as churches and voluntary associations, and related civic activities that transcend neighborhood boundaries in explanations of crime.

These institutions are key to our understanding of crime since interaction among individuals is rarely bound to a specific neighborhood. Additionally, social control mechanisms are often not limited to a specific neighborhood. Community coalitions seeking to reduce crime, as well local police departments, serve as a source of social control for the broader community.

On an empirical level this problem is further confounded since neighborhood is rarely the unit of analysis in studies applying social disorganization theory. Researchers often employ cities or counties as the units of analysis, rather than neighborhoods. In these studies, the concept of disorganized neighborhoods is operationalized by the percent of a population that is disadvantaged in a county or a city. The refined measure of disorganized neighborhoods, concentration of disadvantage, is an improvement over traditional socioeconomic deprivation measures since it employs tract or block group units that more closely approximate neighborhoods. Studies employing this measure, however, are limited to urban areas. Analyses of crime in rural areas have not employed concentrated disadvantage measures and are limited to studies of overall (i.e. not race-specific) rates of crime. These recent rural studies have sought to determine the applicability of social disorganization theory to rural areas. This new line of research would benefit from the inclusion of appropriate measures of neighborhood disorganization, such as concentration of disadvantage, and race-specific analyses.

To address these issues, I review findings from social disorganization research for urban and rural areas that examine the link between socioeconomic deprivation and crime. In the next section, I provide an overview of the causes and consequences of

concentrated disadvantage in urban and rural areas to develop a rationale for studying its effect on crime. I then examine existing literature on civic community theory to determine the manner in which community institutions may affect rates of crime. I conclude by demonstrating that both civic community and social disorganization explanations are vital to the understanding of aggregate rates of crime. I then use this combined perspective to develop expectations of how community institutions directly affect crime and how community institutions mediate the effect of social disorganization on crime.

Social Disorganization, Socioeconomic Deprivation, and Crime

Original formulations of social disorganization theory by Shaw and McKay (1942) argue that a neighborhood's ability to exert social control on its members is directly related to crime and delinquency. Drawing on studies of immigrant neighborhoods in Chicago, Shaw and McKay (1942) found that neighborhoods characterized by high population turn-over and cultural heterogeneity were less socially integrated, leading to higher rates of delinquency.

This approach was later recast by Kornhauser (1978) who suggests that socioeconomic deprivation limits the social resources available to neighborhood residents that allow them to cooperatively exert social control. Cooperative control by parents over children represents a source of social capital in the networks of parents within the neighborhood and has also been linked to positive educational outcomes for children (Morgan and Sorenson 1999). This perspective also overlaps with systemic theory which posits that the development of formal and informal networks within communities is a

function of residential stability (Kasarda and Janowitz 1974). Thus, social disorganization theory is grounded in the assumption that neighborhood stability and cooperative control among residents is intricately tied to the development of strong, concentrated ties.

Studies of socioeconomic deprivation and crime in urban and rural areas provide mixed support for social disorganization theory. One of the most central findings from this body of research is that socioeconomic deprivation has varying effects on African Americans and whites (Harer and Steffensmeier 1992). With respect to urban areas, Harer and Steffensmeier (1992) find a strong relationship between poverty and crime for whites, but there was no substantial evidence supporting this relationship for African Americans. These results are largely replicated in a study of African American homicide by Peterson and Krivo (1993). Peterson and Krivo (1999), however, find some support for the relation between African American socioeconomic disadvantage and African American homicide rates in 1990. Other studies of socioeconomic deprivation have associated the presence of female headed households with the ability of a neighborhood to exert social control over children (Shihadeh and Steffensmeier, 1994). Sampson (1987) suggests that unemployment also influences crime through its effect on single parent families.

Researchers extending this process to explain crime in rural settings have not examined race-specific crime rates. Analyses applying social disorganization theory for rural areas have exclusively examined global crime (i.e., not race-specific) trends. Findings from these studies suggest that an interaction of migration and socioeconomic

deprivation contribute to levels of crime (Osgood and Chambers 2000, Barnett and Mencken 2000). These results are consistent with previous models of rural crime that focused on high growth rural "boomtowns" (Freudenberg 1986). Wilkinson (1984) argues that the structure of ties in rural areas can explain differential rates of crime in urban and rural settings. His findings suggest that since rural residents are characterized by strong rather than weak ties rural areas can exhibit greater social control in the community.

The Causes and Consequences of Concentrated Disadvantage

While socioeconomic deprivation impedes the capacity for informal social control in neighborhoods, recent research has focused on the effects of geographic concentration of deprivation (Peterson and Krivo 1999; Lee 2000). The notion of geographic concentration describes how the overall level of disadvantage is distributed across neighborhoods in an area. Beginning with the publication of William Julius Wilson's (1987) *The Truly Disadvantaged: The Inner City, The Underclass, and Public Policy*, a great deal of research and debate has been devoted to understanding the sources of the sharp increase in concentrated disadvantage in urban areas. One line of argument links concentrated disadvantage to residential segregation. These authors argue that rising levels of deprivation within residentially segregated groups results in concentrated disadvantage within communities (Massey and Eggers 1990, Massey and Denton 1993, Massey, Gros, and Eggers 1991, Krivo, Peterson, Rizzo, and Reynolds 1998). A second line of research asserts that Equal Opportunity legislation providing socioeconomic mobility to middle class African Americans coupled with the decline of low-skill

employment in urban areas in the north and midwest created concentrated disadvantage within some African American neighborhoods in large central cities (Wilson 1987, 1996; Kasarda 1992, 1993, 1995).

With respect to segregation based explanations of concentrated disadvantage, Massey and Eggers (1990) find that the interaction between the percent African American in poverty and level of residential segregation is a strong predictor of concentrated disadvantage. Contrary to Wilson (1987), the authors find that the segregation of poor African Americans from non-poor African Americans has no significant influence on concentrated disadvantage. While these findings were called into question by St. John (1995) and Wilson (1991), a follow-up to this study employing individual level data from the Panel Study of Income Dynamics (PSID) finds that non-poor African Americans have the lowest probability of leaving disadvantaged neighborhoods than any other group (Massey, Eggers, and Shibuya 1994). Researchers also find that large migration flows within poor populations lead to concentrated poverty (Gramlich et al. 1992, Nelson and Edwards 1993). These researchers suggest that even though poor African Americans migrate to different neighborhoods, these groups tend to be redistributed in poor areas.

In contrast, Wilson (1987) argues that concentrated disadvantage has resulted from the out-migration of the African American middle class from poor African American inner city neighborhoods. This problem was further exacerbated by the industrial shifts occurring in many cities in the north and midwest. Kasarda (1995) demonstrates that in Boston, Chicago, Cleveland, Detroit, New York, and Philadelphia low-skill employment within the central city declined while employment in managerial,

professional, technical, and administrative occupations grew. Additionally, Jargowsky and Bane (1991) argue that more persons living in cities transitioned into poverty during the 1970's, thus further concentrating poverty in the central city. Within the context of rural areas in the U.S., the causes of an African American concentrated disadvantage have received little attention, but mirror those of urban trends. Relative to urban poverty, rural poverty tends to be more intense and widespread. Poverty rates for rural areas of the U.S. are higher than those in urban areas (Snip et al. 1993). Even with regard to race, African Americans within rural areas experience significantly higher rates of poverty than African Americans in urban areas. Researchers examining spatially concentrated poverty in rural areas find poverty pockets spanning across multiple counties. In contrast to studies of poverty in urban areas that focus on disadvantaged neighborhoods within a city, studies of rural poverty focus largely on regions of concentrated disadvantage, such as the southern black belt (Falk and Lyson 1988).

While there are some differences in rural and urban poverty, disadvantage for African Americans in either rural or urban areas is linked to discrimination. Snipp et al. (1993) suggest the history of racial subordination and discrimination experienced by African Americans in rural areas is similar to the experience of African Americans in urban areas with respect to restricted access to residential and employment opportunities.

Another explanation of concentrated disadvantage in rural areas over the past thirty years has been migration. The main findings from research linking migration to rural disadvantage indicate that poor residents of rural counties tend to migrate to similar rural poor counties (Nord, Luloff, and Johnson 1995). The movement of the poor from

one poor county to another leads to persistent levels of poverty in these counties. These findings are also consistent with the migration trends of the urban poor noted by Gramlich et al. (1992) and Nelson and Edwards (1993) with the exception that migration tends to occur within cities rather than between counties.

A second migration based explanation for concentrated disadvantage in the rural south is the out-migration of African Americans from 1920 to 1960. Snipp et al. (1993) argue that migration of African Americans from the rural south increased African-American poverty in two ways. First, early migration from these areas to urban centers stripped rural African-American communities of "vital human resources as the ablest left in search of opportunities elsewhere" (Snipp et al. 1993: 191). Second, civil rights legislation opening opportunities for African Americans led many rural African Americans to pursue employment in cities outside the rural south.

Research examining the link between concentrated disadvantage and crime have been limited to urban areas and to date no study has examined the concentrated disadvantage and crime relationship in rural areas. Researchers addressing this issue in urban areas argue that a combination of high levels of segregation and socioeconomic deprivation create concentrated disadvantage in neighborhoods. Concentrated disadvantage elevates level of crime through a number of factors that relate to the social disorganization framework.

Wilson (1987) notes that disadvantaged neighborhoods have elevated levels of single parent families and joblessness. These factors limit informal social control since a concentration of single parent households limits the number of adults available to

supervise children and the time available to develop dense networks among parents. Concentrated unemployment also influences crime by reducing the number legitimately employed individuals who serve as role models and socialize children into traditional means of status attainment. Additionally, concentrated poverty and unemployment limit social and economic resources available to neighborhoods. These resources help to provide formal social control, such as neighborhood organizations, and informal social control mechanisms, such as network ties among families and neighbors (Peterson and Krivo 1999).

A second result of concentrated disadvantage is the acceptance of violence as a means of conflict resolution. Wilson (1987) describes this process as a cultural adaptation to structural constraints. Anderson (1990) notes that fewer role models exist in highly deprived neighborhoods to communicate mainstream norms. In these neighborhoods, violence becomes legitimated as an appropriate response to conflict (Sampson and Wilson 1995). Violence also serves as a means for the achievement of status among peers (Anderson 1990).

Initial studies addressing the validity of these assumptions examined the relationship between segregation and crime. Sampson (1985) finds that residential segregation increases rates of African-American violent crimes. Shihadeh and Flynn (1996) find that the relationship between residential segregation and rates of African-American violent crime is mediated by residential exposure of African Americans to whites. Peterson and Krivo (1993) also find a strong positive relationship between residential segregation and African American violent crime in 1980 and 1990.

More recent studies have refined these concepts by measuring concentrated disadvantage. Studies by Peterson and Krivo (1999) and Lee (2000) both indicate that concentrated disadvantage increases rates of violent crime for both African Americans and whites in 1980 and 1990. Lee (2000) argues that the effect of concentrated disadvantage has equivalent effects for both whites and African Americans. However, Peterson and Krivo (1999) note that the effect of concentrated disadvantage for whites is not different than the effect of overall disadvantage (i.e. percent of the white population in poverty).

While these studies substantiate the concentrated disadvantage and crime relationship, they are limited for a number of reasons. The primary limitation of these studies is the scope of the analysis. No study has examined this relationship in rural areas. Studies should be extended to rural areas to determine the relevance of concentrated disadvantage arguments and the broader social disorganization perspective to the remainder of the U.S. While there is evidence of concentrated disadvantage in rural areas, current studies have not examined the impact of concentration effects on crime. Additionally, studies of rural crime have not examined race-specific rates of crime, which are central in understanding the concentrated disadvantage and crime relationship.

A second limitation of these studies is that traditional social disorganization studies, as well as more recent concentrated disadvantage studies, do not assess the influence of the broader community. Since communities are comprised of institutions that transcend neighborhood boundaries such as churches and businesses, these

institutions should have impacts at the community level. The existing formulation of social disorganization theory has not addressed this issue. This shortcoming of social disorganization poses two questions for researchers: 1) How do community institutions impact levels of crime within neighborhoods, and 2) Should concentrated disadvantaged neighborhoods in communities with strong institutions exhibit lower rates of crime?

Situating the Neighborhood in the Community Context

Few studies have examined the link between community level institutions and crime. Since the unit of social control in social disorganization theory is the neighborhood, this perspective has not yet considered other social control mechanisms operating at the community level. Community institutions represent an ecological context in which individual neighborhoods exist.

One emerging body of research that can address this problem is civic community theory (Tolbert, Lyson, and Irwin 1998). Civic community theory posits that the presence of churches, associations, gathering places, and locally oriented establishments lead to positive socioeconomic outcomes within a community. Local orientation is defined as the degree to which the local economy is characterized by small, local establishments. While previous studies applying civic community theory have demonstrated that civically involved communities have higher levels of socioeconomic well-being, these studies have not linked civic institutions and local orientation to crime. In the remainder of this chapter, I discuss each aspect of civic community theory and link it to aggregate levels of crime.

Locally Oriented Small Business Environments

Local orientation represents the owners and managers of local enterprises who are embedded in the community through financial and social investment (Tolbert, Lyson, Irwin, and Nucci 2000). One aspect of local orientation is locally owned manufacturing which takes place on a small-scale and is flexibly organized (Piore and Sabel 1984). Tolbert, Irwin, Lyson, and Nucci (2000) argue that large multi-unit manufacturing firms with establishments distributed across the U.S. have a corporate rather than a community orientation. Thus, employment searches by the firm are usually national in context. In contrast, the labor market for small manufacturing is locally oriented. Local owners and managers often become engaged in community affairs since the business is tied to the community (Mills and Ulmer, 1946). Compared to large scale branch plant manufacturing, small manufacturing operations are usually single unit enterprises that do not have the capital to easily relocate and have a vested interest in community well-being.

These business persons represent a middle class of community residents who are both socially and economically invested in the community. Lyson, Torres, and Welch (2000) describe these local owners as the "economically independent middle class." The group is comprised of civically active persons engaged in small scale production who provide leadership and efforts to maintain the quality of civic life. Studies examining the presence of local orientation indicate that locally owned production is related to higher levels of community well-being in both urban and rural areas. Studies of small manufacturing indicate that both the absolute and relative presence of small manufacturing are related to higher levels of income, lower levels of inequality and

poverty in rural and urban areas (Tolbert and Lyson 1996; Tolbert, Lyson, Irwin, and Nucci 2000). Additionally, results from Lyson, Torres, and Welch (2000) indicate that the presence of small-scale businesses in rural areas is related to lower levels of family poverty, property crime, unemployment and low birth weight babies.

Locally oriented business persons can serve two vital roles in communities that directly influence aggregate levels of crime. First, local business persons serve as role models who can reinforce the value of legitimate forms of status attainment such as education. In contrast to absentee owners in corporate agriculture and branch plant manufacturing, local owners are community members and more visible and accessible to the community than board members or executives of a corporation. As role models, these business persons deter criminal behavior by representing the norms and values of mainstream society.

Second, local business persons enhance the "problem solving" capacity of a community (Lyson, Torres, and Welch 2000). Since, local businesses are largely bound to a specific community, the well-being of a local business enterprise is intricately tied to the well-being of community residents. These local business persons may serve as leaders in political and voluntary organizations that address issues of public safety and economic well-being. Mills and Ulmer (1970) argue that small business owners benefit community problem solving since they are have the resources, education, training, and ties to political and administrative bodies to effectively manage and coordinate voluntary civic efforts.

Religious Institutions

Churches act as both a source of community cohesion and religious context for communities. Churches serve as an arena for public interaction and facilitate associational behavior among members. Churches lead to higher levels of community cohesion by increasing levels of community stability and decreasing out-migration (Irwin, Tolbert, and Lyson 1997). Putnam (1993), however, notes that not all churches develop horizontal ties across all groups. In the case of the Catholic church, Putnam finds that these members are less civically involved since the organization of the church creates greater within group ties. To address this issue, Tolbert, Lyson, and Irwin (1998) develop a measure of civically engaged denominations that classifies denominations by the participation of church members in voluntary associations.

The presence of churches also generate a context of religious commitment in communities. Stark (1996) argues that the religious context, rather than individual religious commitment, regulates individual deviant behavior. In an analysis of high-school students in the U.S., he finds that the benefit of individual religious commitment in a religiously indifferent context is minimal. Other studies examining the relationship between religious participation and crime report similar results. Johnson, Jang, and De Li (2000) find that the effects of social disorganization on individual criminal behavior are buffered by religious participation for African-American juveniles. Evans, Cullen, and Dunaway (1995) also find a significant relationship between religious participation and individual adult criminal behavior. While these studies support the relationship between

religious context and individual behavior, no study to date has examined the relationship between religious context and aggregate rates of crime.

The presence of churches should have a substantial effect on aggregate rates of crime in communities. Churches reinforce networks of social control in communities. In addition, members of churches benefit community well-being through participation in voluntary organizations and community coalitions. These coalitions and organizations can provide vital resources to disadvantaged communities to enhance social control mechanisms, such as educational and social services (see Ward 1997 for a case study). Additionally, the presence of churches provides a religious context to transmit and reinforce norms of behavior in communities. At the community level, this context should provide an additional link to mainstream values in disadvantaged communities.

Summary and Conclusions

As currently theorized, the social disorganization perspective is limited in a number of respects. The primary limitation of social disorganization theory is the lack of attention given to the community context in which neighborhoods exist. Current studies of social disorganization focus on the overall levels of socioeconomic deprivation or the concentration of these factors into specific neighborhoods to measure the level of social disorganization present in neighborhoods. These studies assume the relationship between neighborhood social disorganization and crime is independent of contextual factors in the broader community. A second shortcoming of social disorganization theory is that studies have been limited to urban areas and the applicability to rural areas has not been well established. For African Americans in rural areas, social disorganization theory is

especially problematic since African Americans in rural areas experience higher levels of socioeconomic deprivation, but have lower rates of crime than their counterparts in urban areas.

To address these limitations of social disorganization theory, I develop a civic community explanation of crime. The civic community explanation of crime addresses the limitation of social disorganization by examining broader community institutions. Analyses of aggregate rates of crime that address both social disorganization (neighborhood-level) and civic community (community-level) concerns should provide more comprehensive explanations of aggregate levels of crime. For example, the inclusion of community characteristics in the study of crime provides a possible explanation of why the relationship between deprivation and crime is not consistent across all areas of the U.S. The few studies that have integrated notions of civic institutions, such as churches and voluntary associations, indicate that the relationship between deprivation and crime may be mediated by these characteristics of communities.

To examine the validity of these assumptions, I examine the relationship between civic institutions, concentrated disadvantage (neighborhood disorganization), and homicide within urban and rural counties cross-sectionally for 1990 and longitudinally from 1980 to 1990. I draw on race-specific data from the Census of Population and Housing and Supplementary Homicide Reports from the Uniform Crime Reporting System to measure concentrated disadvantage and homicide. Measures of civic institutions are from County Business Patterns, Census of Churches, and the Census of

Agriculture. Using these data sources, I test five hypotheses regarding the direct and mediating effects of civic institutions.

My first hypothesis is based on the literature on civic community theory (Lyson, Torres, and Welsh 1999; Tolbert, Lyson, and Irwin 1998). In this regard, I expect that the presence of civic community directly decreases levels of homicide in both urban and rural counties by creating higher levels of community cohesion.

My second hypothesis arises from previous research that suggests that the relationship between socioeconomic disadvantage and crime is often mediated by factors related to community cohesion (Shihadeh and Steffensmeier 1994). Thus, I hypothesize that the presence of civic community indicators mediates the effect of concentrated disadvantage and socioeconomic deprivation on crime in urban and rural counties.

In my third hypothesis, I test for differences in the effect of civic community between urban and rural areas. Following Beggs, Haines, and Hurlbert (1996), who suggest that network ties in rural communities are more likely to be organized around neighbors and family, I hypothesize that the direct and mediating effects of civic community are stronger in rural counties.

My fourth hypothesis examines the longitudinal relationship between civic community and homicide. Previous research on civic community examining longitudinal data (Lyson, Torres, and Welsh 1999) suggests changes in the presence of civic community are associated with changes in community well-being. Thus, I hypothesize that increases in civic community indicators over time should be associated with declines in homicide victimization during the same time period in rural and urban counties.

In my fifth hypothesis I examine the effects of levels of civic community on subsequent changes in the level of homicide. Previous research on civic community examining longitudinal data (Lyson, Torres, and Welsh 1999) suggests that civic community can have a lagged effect on changes in community well-being. Thus, I hypothesize that the level of civic community at time 1 will be associated with declines in homicide victimization in following years for rural and urban counties.

CHAPTER 3: DATA AND METHODS

Units of Analysis and Data Sources

The units of analysis in this study are 119 urban and 707 rural counties in the U.S. I operationalize *urban* as those counties that are core counties of metropolitan statistical areas throughout the U.S (Butler and Beale 1994). I further restrict this sample by selecting only those core counties with a total population of at least 100,000 persons and at least 5,000 African- American residents in 1980 and 1990. I limit my urban sample by these criteria to maintain comparability to previous studies of social disorganization. I operationalize *rural* as counties that are not a part of a metropolitan statistical area and classified as nonmetropolitan (Butler and Beale 1994). I include only those nonmetropolitan counties that are subdivided into at least three block groups by the Bureau of the Census and have at least 100 African-American residents in both 1980 and 1990. These criteria ensure that a reasonable number of African Americans reside in a county to provide reliable calculations of the concentration of socioeconomic deprivation discussed below. Counties not subdivided into an adequate number of sub-county units may not yield reliable measures of concentration. Additionally, I only analyze nonmetropolitan counties located in the south since the vast majority of the nonmetropolitan African-American population resides in the south. The total sample of 817 counties accounts for two-thirds of the total African American population in the U.S.

Data for this study come from a variety of sources. Information on race-specific rates of crime come from the 1978-1992 Uniform Crime Reports, Supplementary Homicide Report Victim File. Social and economic characteristics for counties are

tabulated from the 1980 and 1990 Census of Population and Housing Summary Tape File 3A. This tabulation provides information at both the county and block group level. Data on business establishments come from the 1979 and 1989 County Business Patterns. Information on churches in the U.S. are derived from the 1980 and 1990 Census of Churches collected by the Glenmary Research Center.

Dependent Measures: Race-Specific Homicide Victimization Rates, 1980 and 1990

The dependent variable in the following analyses is the race-specific homicide victimization rate per 100,000 persons. UCR Homicide victimization data refer to the number of homicide incidents that occurred within a given county. Thus, homicide victims are assigned a geographic location based on the county of incidence rather than the county of residence. I construct this measure using a five year average, centered on the decennial census year, to account for the variability of homicides from year to year. Due to the rarity of homicide, especially in rural areas, examining a single year or even three year average may mask important homicide trends for a county. For 1980, I calculate the race-specific homicide rate as the average number of homicide victims for a given group occurring between 1978 and 1982 divided by the population of that group reported in the 1980 census. The same method is employed for 1990 with the exception that I examine homicide victims between 1988 and 1992 and divide by the population total reported in the 1990 census. Homicide victimization rates are calculated for African Americans and whites for the 1980 and 1990 time period. Because homicide

victimization rates are not normally distributed, I calculate the natural logarithm to induce normality.

I operationalize levels of crime as the rate of homicide victimization for two reasons. First, homicide is the crime most likely to be reported to the police (Black and Reiss 1970). Because homicide is the most severe crime, legal authorities expend a great deal of police and medical resources in the classification of homicides. Thus, homicide is one of the best measured crimes. Second, victimization rates are a more accurate measure of homicide since these statistics are not subject to biases based on police efficiency. Research employing arrest statistics is limited to the number of homicides that are cleared by the police. Thus, unsolved homicides are not present in arrest statistics. Since the majority of homicides are intra-racial in nature, victimization rates provide an accurate measure of the characteristics of both offender and victim.

Independent Variables

Concentrated Socioeconomic Deprivation

I operationalize the concentrated disadvantage with three variables that measure the degree to which socioeconomic deprivation is concentrated into specific areas within a county. These concentration effects are measured using the exposure index (Bell 1954). I calculate race-specific exposure indices for three types of deprivation in 1980 and 1990: *poverty*, *unemployment*, and *female headed families with children*. The exposure index is calculated as:

$$xP^*y = \sum_{i=1}^{n} \left[\frac{x_i}{X}\right]\left[\frac{x_i}{t_i}\right]$$

This index measures the probability that a randomly selected person in group x shares residential space with a person in group y (Massey and Denton 1987). In the case of concentrated poverty for African Americans, x_i refers to the number of poor African Americans in a block group, X refers to the number of poor African Americans county-wide, and t_i refers to the population of the block group. The values of this measure range from 0 to 1, where 1 indicates total concentration of poverty.

Previous research has measured exposure indices with tract level data (Massey and Denton 1993). However, measurement of exposure in nonmetropolitan counties is not reliable with tract level data since one county could potentially be subdivided into only two tracts. To address this issue, I employ block groups as the sub-county unit.

Because of the high inter-correlations among these measures, I construct a concentrated disadvantage scale for African Americans and whites in 1980 and 1990. The scale is created through a principal components exploratory factor analysis. The factor loadings for this measure are presented in Table 1. The results of the factor analysis indicate that measures of concentrated disadvantage have similar loadings for both African Americans and whites in 1980 and 1990. In addition, these results are consistent for both urban and rural locales. Correlations among factors are presented in Appendix B.

Socioeconomic Deprivation

I also include race-specific measures of socioeconomic deprivation. These measures include: *proportion of families with children that are female headed, proportion in poverty,* and *proportion of the civilian labor force unemployed.* These

Table 1. Factor Loadings for Scales (N=826), 1980-1990*

	1980	1990
AA Concentrated Disadvantage		
AA Poverty Concentration	.902	.944
AA Female Headed Families Concentration	.894	.913
AA Unemployment Concentration	.875	.949
Percentage Variance Explained	*79%*	*87%*
White Concentrated Disadvantage		
White Poverty Concentration	.739	.853
White Female Headed Families Concentration	.892	.898
White Unemployment Concentration	.479	.619
Percentage Variance Explained	*52%*	*64%*
AA Socioeconomic Deprivation		
AA Poverty Concentration	.734	.849
AA Female Headed Families Concentration	.777	.704
AA Unemployment Concentration	.617	.684
Percentage Variance Explained	*51%*	*56%*
White Socioeconomic Deprivation		
White Poverty Concentration	.797	.853
White Female Headed Families Concentration	.738	.795
White Unemployment Concentration	.868	.883
Percentage Variance Explained	*64%*	*71%*
Local Orientation		
Proportion Small Establishments	.766	.717
Proportion Home Workers	.910	.892
Proportion Self-Employed	.844	.748
Percentage Variance Explained	*71%*	*62%*

variables are calculated for both whites and African Americans. For example, the proportion African Americans in poverty is calculated as the number of African Americans living below the poverty level in a given county divided by the total African American population for whom poverty status is determined within a given county.

Similar to the concentrated disadvantage measures, I create a scale for socioeconomic deprivation due to the high inter-correlations among the three measures for 1980 and 1990. The factor loadings for this measure are presented in Table 1. The results of the factor analysis indicate that measures of concentrated disadvantage have similar loadings for both African Americans and whites in 1980 and 1990. In addition, these results are consistent for both urban and rural locales.

Civic Community

I examine two dimensions of civic community in my analyses: *local orientation* and *church structure*. Direct measurement of the local orientation of a county's economy requires information on ownership of establishments operating within the county. Unfortunately, this information is not made public by the Bureau of the Census and is considered confidential information by the Internal Revenue Service. Previous research measuring local orientation with publicly available data sources has employed data from both the Census of Population and Housing and County Business Patterns to create a factor scale (Lyson, Torres, and Welch 1999). Following their methodology, I employ three proxy measures of local orientation that include: *proportion self-employed, proportion home-workers,* and *proportion of all establishments that have less than 10 employees*. These measures closely measure the amount of local business activity in a

county since the majority of locally owned establishments have no employees and are often home-based businesses (U.S. Bureau of the Census 1997). Data for self-employed and home workers come from the 1980 and 1990 Census of Population and Housing STF3A. Small establishment data come from the 1979 and 1989 County Business Patters. To minimize collinearity problems in the analysis due to intercorrelations among independent variables, I create a factor scale for local orientation for 1980 and 1990. Factor loadings for the scale are reported in Table 1.

To measure church structure, I include a measure of the *number of churches per 1000 church members*. This variable is constructed by dividing the total number of churches by the total church members in a county and multiplying by 1,000. Data on the number of churches are from the 1980 and 1990 Census of Churches.[2]

Control Variables

I also include a number of control measures drawn from previous studies of social disorganization. These variables include *structural density, proportion renters, proportion vacant housing units, proportion males age 15 to 24,* and the *natural logarithm of population size.* These measures are calculated from the 1980 and 1990 Census of Population and Housing STF3A.

Structural density is measured as the proportion of housing units that are located in structure with 5 or more units. Previous research suggests that dense housing structures increase the occurrence of crime (Sampson 1983). *Proportion renters* is

[2] The Census of Churches is self-report data and may be biased by response patterns. While the producers of this data source provide national estimates of excluded denominations, these estimates are not calculated for U.S. counties.

calculated for both whites and African Americans. For example, proportion white renters is measured as the proportion of all white households occupied by renters. Proportion renters is included to control for the degree of community integration because renters are less embedded in the community. *Proportion vacant housing units* is measured as the proportion of all housing units that are vacant. Both vacant housing and renters influence crime rates by limiting community cohesion and guardianship (Skogan 1991). *Proportion males age 15 to 24* is included to control for variation in the size of the most crime-prone group by race. This variable is calculated by dividing the number of males age 15 to 24 by the total number of males for each race group. I also control for population size. I use the natural logarithm of population size to adjust for skewness in the distribution.

Descriptive Analysis

Tables 2 and 3 lists means and standard deviations for race-specific measures in the analysis. Table 2 reports descriptive statistics for the African-American population. With respect to the dependent variables in the analysis, urban counties have a higher rate of African-American homicide victimization in both 1980 and 1990. The rural-urban gap in homicide victimization also grew during the 1980's. For example, in 1980 the ratio of urban to rural African American homicide victimization was 1.16. This gap grew substantially in 1990 as the rate in rural areas declined, while the rate in urban areas increased slightly. Thus, in 1990 the ratio of urban to rural homicide victimization grew to 1.49, representing a 28% increase in urban-rural gap.

Table 2. Means and Standard Deviations for African Americans (AA) 1980-1990

	1980		1990	
	Urban	Rural	Urban	Rural
Panel 1: Dependent Variable				
AA Homicide Victimization per 100,000 African Americans	30.45 (27.39)	26.51 (36.01)	31.90 (34.68)	21.59 (28.62)
AA Homicide Victimization (log)	3.23 (.64)	2.45* (1.59)	3.20 (.76)	2.16* (1.64)
Panel 2: Concentrated Disadvantage Scale Components				
AA Poverty Concentration	.16 (.08)	.22 (.12)	.20 (.12)	.30 (.09)
AA Female Headed Families Concentration	.11 (.06)	.08* (.05)	.13 (.07)	.08* (.02)
AA Unemployment Concentration	.03 (.01)	.03* (.02)	.04 (.02)	.04* (.02)
Panel 3: Socioeconomic Deprivation Scale Components				
AA Poverty	.23 (.07)	.36* (.16)	.23 (.10)	.40* (.13)
AA Female Headed Families	.25 (.06)	.16* (.09)	.26 (.06)	.23* (.09)
AA Unemployment	.10 (.04)	.10 (.06)	.11 (.04)	.14* (.07)
Panel 4: Control Variables				
AA Renters	.56 (.11)	.33* (.17)	.67 (.21)	.18* (.36)
AA Age 15-24	.22 (.03)	.23 (.10)	.18 (.02)	.19 (.08)

*indicates significant difference between urban and rural for given time period ($p<.05$ two tailed test), Number of Urban Counties=119, Number of Rural Counties=707, Number in parentheses is standard deviation

Another important difference between rural and urban counties is that African-American homicide is a rare event in rural counties. One third of the rural counties in this sample have no occurrences of African-American homicide victimization in 1990 and one quarter of all rural counties experienced no homicide in 1980.[3] Additionally, three-quarters of the rural counties in 1990 had a lower homicide rate than the average rate of homicide victimization in urban areas (32.20 per 100,000). In 1980 69% of all rural counties in this sample had a rate lower than that of the counties in the urban sample.

Panel 2 of Table 2 reports means and standard deviations for measure of concentrated disadvantage. During the 1980 time period, urban and rural counties had similar levels of concentrated disadvantage with the exception of concentrated poverty. In both 1980 and 1990 concentrated poverty was higher in rural counties. Additionally, this gap grew slightly during the 1980's

In Panel 3 of Table 2 I report descriptive statistics for socioeconomic disadvantage. For 1980, rural counties had a substantially higher poverty rate than urban counties, while urban counties had a significantly higher rate of female headed families. Unemployment for African Americans in 1980 was statistically equivalent in urban and rural counties. In 1990, trends for these measures remained unchanged with the exception of unemployment. In 1990 African American unemployment in rural counties was significantly higher than in urban counties in this sample.

[3] The 1990 homicide rate refers to the five year average based on the years 1988-1992. The 1980 homicide rate refers to the five year average based on the years 1978-1982.

Panel 4 reports means and standard deviations for race-specific controls in the analysis. In both 1980 and 1990 a significantly higher proportion of African Americans in urban counties rented housing units than those in rural counties. Descriptive statistics for the age distribution (proportion male age 15 to 24) indicate no significant differences between urban and rural counties.

Table 3 lists means and standard deviations for whites. With respect to the average homicide rate (see Panel 1, Table 3), whites in both urban and rural areas experience a statistically equivalent risk of victimization. There was also little change during the 1980's in rates of victimization for both urban and rural counties.

Panel 2 reports descriptive statistics for concentrated disadvantage measures. For 1980, there are few differences between urban and rural rates of concentrated disadvantage with the exception of concentrated poverty. Whites in rural counties experience a significantly higher level of concentrated poverty. In 1990 rural white residents continued to experience a significantly higher level of concentrated poverty. While there is no significant difference in unemployment concentration in either time period, urban counties had a significantly higher level of concentrated female headed households with children in 1990.

Rates of socioeconomic disadvantage are reported in Panel 3. The greatest disparity between rural and urban white disadvantage is in the proportion in poverty. In both 1980 and 1990, the poverty rate for whites in rural counties was over twice the rate for whites in urban counties. Deprivation measures for unemployment and female headed families are relatively similar. Urban counties had a significantly higher rate of

Table 3. Means and Standard Deviations for Whites 1980-1990

	1980		1990	
	Urban	Rural	Urban	Rural
Panel 1: Dependent Variable				
White Homicide Victimization	7.19	6.61	6.08	6.60
	(9.30)	(5.43)	(10.10)	(6.56)
White Homicide Victimization (log)				
	1.83	1.74	1.67	1.66
	(.66)	(.84)	(.66)	(.94)
Panel 2: Concentrated Disadvantage Scale Components				
White Poverty Concentration	.09	.12*	.10	.16*
	(.03)	(.07)	(.04)	(.06)
White Female Headed Families Concentration	.05	.03	.06	.05*
	(.01)	(.01)	(.01)	(.02)
White Unemployment Concentration	.02	.02	.03	.03
	(.01)	(.01)	(.01)	(.01)
Panel 3: Socioeconomic Deprivation Scale Components				
White Poverty	.07	.15*	.07	.16*
	(.02)	(.05)	(.03)	(.05)
White Female Headed Families	.06	.04*	.06	.05*
	(.01)	(.01)	(.01)	(.01)
White Unemployment	.05	.05	.04	.06*
	(.02)	(.02)	(.01)	(.02)
Panel 4: Control Variables				
White Renters	.34	.23*	.50	.32*
	(.11)	(.06)	(.13)	(.31)
White Age 15-24	.18	.17*	.16	.14*
	(.02)	(.03)	(.02)	(.03)

*indicates significant difference between urban and rural for given time period ($p<.05$ two tailed test), Number of Urban Counties=119, Number of Rural Counties=707, Number in parentheses is standard deviation

female headed households in 1980 and 1990, but the difference was only .02 in 1980 and .01 in 1990. Unemployment for whites in 1980 was equivalent in rural and urban counties. The rural-urban gap in unemployment grew in 1990. Rural counties experienced a 2% higher rate of unemployment in 1990.

Descriptive statistics for the control variables for whites are listed in Panel 4. In both 1980 and 1990 whites in urban areas were more likely to rent a housing unit than own. Whites in both urban and rural counties rented at higher rates in 1990 than in 1980. The proportion of the white population age 15 to 24 was also higher in urban areas during both time periods. During the 1980's the proportion of the white population in this age category residing in both urban and rural counties declined slightly.

Table 4 reports means and standard deviations for civic community and control variables. Panel 1 reports statistics for the civic community measures. On all measures of civic community, rural counties have higher rates in both time periods. Rural counties in this sample have significantly more churches per 1000 church members than urban counties. With respect to economic orientation, rural counties are significantly more locally oriented than urban counties. The largest discrepancy among local orientation measures occurs in the difference in the proportion self-employed in urban and rural counties. In both 1980 and 1990, the rural rate of self-employment is nearly twice as large as the rate in urban areas. Additionally, rural counties had significantly higher proportions of home workers and establishments with less than 10 employees.

Panel 2 reports descriptive statistics for control variables. Key rural-urban differences listed in Panel 2 include the difference in population size, vacant housing, and

Table 4. Means and Standard Deviations for Civic and Control Variables 1980-1990

	1980		1990	
	Urban	Rural	Urban	Rural
Panel 1: Civic Community Variables				
Churches per 1000	3.760 (1.077)	6.790* (2.281)	3.855 (1.464)	6.010* (2.185)
Local Orientation Scale				
Proportion Home Workers	.01 (.004)	.02* (.02)	.02 (.01)	.03* (.01)
Proportion Self-Employed	.05 (.01)	.10* (.04)	.05 (.01)	.09* (.03)
Proportion Small Establishments	.73 (.03)	.79* (.04)	.72 (.07)	.80* (.04)
Panel 2: Control Variables				
Population Size	761,373 (889,272)	24,091* (17,250)	847,759 (1,000,497)	24,775* (18,499)
Population Size (log)	13.21 (.77)	9.85* (.69)	13.33 (.75)	9.87* (.71)
Proportion Vacant Housing	.06 (.03)	.10* (.04)	.07 (.04)	.14* (.07)
Structural Density	.23 (.11)	.14* (.05)	.26 (.11)	.23* (.07)

*indicates significant difference between urban and rural for given time period ($p<.05$ two tailed test), Number of Urban Counties=119, Number of Rural Counties=707, Number in parentheses is standard deviation

structural density. As expected, urban counties in this sample have a significantly larger population size. The average urban county population in 1990 is 847,759, while the average rural county contained 24,775 residents. Vacant housing units as a proportion of the housing stock are more prevalent in rural than urban counties. Structural density, in contrast, is more prevalent in urban counties. Structural density measures the proportion of all housing units located in structures containing five or more housing units. Thus, housing units in urban areas are more likely to be located in multi-unit structures. However, this discrepancy declined during the 1980's.

Bivariate Analysis

In Table 5, 6, and 7 I report results from my bivariate analysis. The purpose of the bivariate analysis is to explore three questions germane to the hypotheses under study. First, what is the relationship between concentrated disadvantage/socioeconomic deprivation and homicide victimization in urban and rural areas? Since no study to date has evaluated the correlates of race-specific rates of crime in rural areas, this portion of the analysis will provide basic insight into how social disorganization measures operate in rural areas. The second question under study in this section deals with the relationship between civic community measures and crime. As with the previous question, few studies have linked civic community measures to rates of crime. The final question addressed in this section deals with the relationship between concentrated disadvantage/socioeconomic deprivation and civic community. Results pertaining to this question address the manner in which civic community characteristics may buffer the effects of deprivation on crime.

Table 5 reports bivariate correlation coefficients for correlates of African American homicide victimization for 1980 and 1990 in urban and rural counties. Panel 1 reports bivariate correlation coefficients for civic community measures. For urban counties, churches per 1000 members is not significantly correlated with African American homicide victimization in 1980, while in 1990 churches per 1,000 church members has a significant negative relationship with homicide rates. One potential explanation for this difference in significant effect could be that the number of churches per 1,000 members in urban counties increased during the 1980's. However, this is not the case since the mean number of churches per 1,000 members in 1980 is equivalent to the mean in 1990. On the bivariate level, churches began to play a more important role in providing social control during the 1980's.

For rural counties, in contrast, churches played a key role in both 1980 and 1990. Churches per 1,000 members is negatively related to homicide victimization in both time periods. While churches have more recently become a key predictor of homicide victimization in urban counties, both urban and rural counties experienced an increasingly important role for churches in regulating crime.

The second measure of civic community, local orientation, also has significant effects on homicide victimization. In both 1980 and 1990, local orientation is negatively related to African American homicide victimization in rural counties. These results suggest that a locally oriented economy in rural counties is related to lower levels of homicide in rural counties. For urban counties, the presence or absence of local orientation is not associated with levels of homicide victimization.

Table 5. Pearson Correlation Coefficients of Measures and African American Homicide Victimization

	1980		1990	
	Urban	Rural	Urban	Rural
Panel 1: Civic Community Measures				
Churches Per 1,000	-.137	-.175*	-.308*	-.292*
Local Orientation Scale	-.116	-.212*	-.202*	-.251*
Panel 2: AA Disadvantage Scales				
AA Concentrated Disadvantage Scale	.591*	.275*	.566*	.390*
AA Socioeconomic Deprivation Scale	.510*	.127*	.604*	.021
Panel 3: Control Variables				
Proportion AA Renters	.147	.030	.253*	.165*
Proportion AA males age 15-24	-.085	-.136*	-.122	-.067*
Population Size (log)	.325*	.216*	.324*	.180*
Proportion Vacant Housing	.443*	-.022	.256*	-.161*
Structural Density	.357*	.072	.333*	.006

* $p<.05$ two tailed test
Number of Urban Counties=117, Number of Rural Counties=700

Panel 2 reports correlations between measures of African American disadvantage and homicide victimization. The first measure of disadvantage, the concentrated disadvantage scale, is correlated with homicide victimization for both time periods across rural and urban counties. These results point to two important findings. First, concentrated disadvantage for African Americans is significantly related to homicide in both urban and rural counties. This indicates that the social processes driving homicide rates in urban areas may also be operating in rural counties. Second, these results suggest that the relationship between concentrated disadvantage and homicide is stronger in urban counties. For both time periods the bivariate correlation for urban counties is nearly three times the correlation in rural counties.

The second measure of disadvantage, the socioeconomic deprivation scale, is less consistent across urban and rural counties. For urban counties in both 1980 and 1990 there is a strong correlation with homicide victimization (.510 in 1980, .604 in 1990). In rural counties the correlations are substantially weaker. While the relationship between deprivation and homicide is significant in 1980, it is insignificant in 1990. This finding is inconsistent with the social disorganization perspective since we would expect to see at least a significant positive correlation between these two variables given that all measures of socioeconomic deprivation increased from 1980 to 1990. One potential explanation for this inconsistency is that absolute levels of deprivation are relatively less important than the spatial distribution of disadvantage in rural areas captured in the concentrated disadvantage scale. This suggests that socioeconomic deprivation is not related to crime unless the disadvantage is confined to specific segments of the county.

Panel 3 of Table 5 reports correlations for control variables. The first control measure, African American renters, is significantly correlated to homicide victimization in 1990. For 1980, there is no significant correlation. This finding suggests that increases in the proportion renters in either rural or urban counties is related to higher levels of homicide victimization in 1990. The proportion of the male population aged 15 to 24 is related to lower level of homicide victimization in 1980 and 1990 for rural counties. Population size is significantly correlated with homicide victimization in both rural and urban counties in 1980 and 1990. Vacant housing is also directly related to African-American homicide victimization in urban counties. For rural counties this relationship is not significant in 1980 and negative in 1990. This suggests that rural counties with an abundance of vacant housing units have a lower level of homicide. While this relationship is contradictory to previous studies of urban homicide (Skogan 1991), vacant housing in rural areas may be a proxy for de-population which has been related to lower levels of crime (Mencken and Barnett 2000). Structural density is related to higher levels of homicide victimization in urban counties in 1980 and 1990. For rural counties, this relationship is not significant.

Table 6 presents bivariate correlations for white homicide victimization. Panel 1 lists bivariate correlations for measures of civic community. For white homicide, measures of civic community have little affect in either urban or rural counties. The number of churches per 1,000 members is significantly related to white homicide victimization in urban counties in 1990, but not in 1980. This finding suggests that churches had an increasing influence on homicide during the 1980's. Since the average

number of churches per 1,000 members in urban counties did not increase during the 1980's, it is unclear why churches gained significance in 1990. In addition, the significance of churches in rural counties declined during the 1980's with respect to white homicide victimization. The second measure of civic community, local orientation, is not significantly related to homicide victimization in either rural or urban counties. Thus, locally oriented economies have no effect on the rate of homicide victimization for whites.

Panel 2 reports bivariate correlations between homicide victimization and measures of disadvantage. The results from this section indicate that concentrated disadvantage has a significant relationship with homicide in rural and urban counties. Thus, concentrated disadvantage is an important predictor of homicide victimization in both rural and urban counties. The deprivation scale is also significantly related to white homicide victimization in both rural and urban counties across both time periods under study.

Bivariate correlations for control variables are listed in Panel 3. The proportion renters is positively correlated to white homicide victimization rate in both 1980 and 1990 for urban counties. For rural counties, the proportion renters is significant only in 1980. Interestingly, the proportion of white householders renting in 1990 is slightly higher than in 1980 (.23 in 1980 to .32 in 1990). With respect to the age distribution for whites, the proportion of persons males age 15-24 in urban areas is not significantly associated with levels of homicide victimization. The log of the population size in both time periods for urban and rural counties is associated with higher levels of homicide

Table 6. Pearson Correlation Coefficients of Measures and White Homicide Victimization

	1980		1990	
	Urban	Rural	Urban	Rural
Panel 1: Civic Community Measures				
Churches Per 1,000	-.112	-.124*	-.325*	-.034
Local Orientation Scale	.091	-.050	.104	-.038
Panel 2: White Disadvantage Scales				
White Concentrated Disadvantage Scale	.299*	.154*	.225*	.083*
White Socioeocnomic Deprivation Scale	.379*	.094*	.536*	.108*
Panel 3: Control Variables				
Proportion White Renters	.571*	.205*	.317*	-.031
Proportion White males age 15-24	-.064	.029	-.065	-.020
Population Size (log)	.278*	.206*	.326*	.097*
Proportion Vacant Housing	.557*	.050	.378*	-.027
Structural Density	.517*	.048	.491*	-.071

* p<.05 two tailed test
Number of Urban Counties=119, Number of Rural Counties=707

victimization for whites. Vacant housing is also strongly related to homicide, however this relationship is limited to urban counties. For rural counties there is no significant effect in either time period. Additionally, structural density is also only significant for urban counties. In 1980 and 1990 structural density is significantly related to crime in urban counties. This finding indicates that the proportion of the housing stock located in multiple unit structures of 5 or more is associated with higher levels of homicide victimization for whites.

Table 7 reports bivariate correlations between measures of disadvantage and civic community. The results from this table provide exploratory results regarding the potential mediating effects of civic community on crime. Panel 1 reports correlations for churches per 1,000 members. Both measures of African American disadvantage are significantly correlated to churches in rural counties for 1980 and 1990. For urban counties, only African American concentrated disadvantage in 1990 is significantly related to churches per 1,000 church members. These findings indicate that rural counties with higher levels of both concentrated disadvantage and socioeconomic deprivation have fewer churches per 1,000 members. For whites, there is no consistent relationship between concentrated disadvantage and churches in rural or urban counties in either time period. However, there is a strong positive relationship between the socioeconomic deprivation scale and churches per 1,000 members in rural counties. This finding indicates that rural counties with higher levels of white disadvantage have more churches per 1,000 members.

Panel 2 of this table reports correlations between measures of disadvantage and local orientation. Concentrated disadvantage for African Americans is significantly related to local orientation across rural and urban counties in both time periods. These findings indicate that counties with high levels of concentrated disadvantage among African Americans have less local orientation. For socioeconomic deprivation among African Americans there is a strong negative correlation with local orientation for urban counties in 1980. There is no significant relationship between these measures in rural counties. Thus, urban counties with a high level of African-American disadvantage in 1980 have a less locally oriented business environment. With respect to white disadvantage measures, concentrated disadvantage among whites is negatively associated with local orientation in rural counties across both time periods. For the socieconomic deprivation scale, there is no significant correlation.

Summary

The descriptive and bivariate analysis presented here provides a number of key findings regarding the relationships between the key independent variables, socioeconomic disadvantage and civic community, and crime. Additionally, this analysis provides exploratory results regarding the interrelationships between socioeconomic disadvantage and civic community. However, it is important to note that these relationships are bivariate and may be tenuous. I summarize these findings below.

1) Rates of homicide victimization for African Americans in rural and urban counties are vastly different. Given this difference, I would expect to see a greater discrepancy in rates of concentrated disadvantage and socioeconomic deprivation

Table 7. Pearson Correlation Coefficients of Civic Measures and Disadvantage Scales

	1980		1990	
	Urban	Rural	Urban	Rural
Panel 1: Churches Per 1,000				
African American Disadvantage Scales				
AA Concentrated Disadvantage Scale	-.161	-.131*	-.360*	-.471*
AA Socioeconomic Deprivation Scale	.099	-.096*	-.124	-.111*
White Disadvantage Scales				
White Concentrated Disadvantage Scale	.347*	.035	-.175	.293*
White Socioeconomic Deprivation Scale	.364*	.127*	.084	.321*
Panel 2: Local Orientation Scale				
African American Disadvantage Scales				
AA Concentrated Disadvantage Scale	-.367*	-.279*	-.339*	-.372*
AA Socioeconomic Deprivation Scale	-.240*	-.031	-.143	.046
White Disadvantage Scales				
White Concentrated Disadvantage Scale	-.150	.106*	-..045	.116*
White Socioeconomic Deprivation Scale	-.081	.055	-.009	.056

* p<.05 two tailed test
Number of Urban Counties=119, Number of Rural Counties=707

between rural and urban counties. However, descriptive results from Table 2 indicate that this is not the case and, in some instances, African Americans in rural counties exhibit higher rates of disadvantage.

2) Rates of white homicide victimization are statistically equivalent in rural and urban counties. Thus, I would expect to see equal levels of socioeconomic deprivation in both urban and rural counties. However, in many instances, means for levels of concentrated disadvantage and socioeconomic deprivation are greater among whites in rural counties.

3) Measures of civic community are significantly higher in rural counties for both time periods.

4) Measures of concentrated disadvantage and socioeconomic deprivation are strongly related to homicide victimization for both African Americans and whites in urban counties.

5) For African American homicide victimization, churches per 1,000 church members persons and local orientation are directly and consistently related to lower levels of homicide victimization in rural counties.

6) Churches per 1,000 members is negatively associated with both African American concentrated disadvantage and socioeconomic deprivation in rural counties.

7) Local orientation is negatively related to both white and African American rates of concentrated disadvantage in rural counties. Local orientation is also negatively associated with African American levels of socioeconomic deprivation.

CHAPTER 4: METHODS AND CROSS SECTIONAL ANALYSIS FOR 1990

In this chapter I present my tests of the three hypotheses developed in the critique and theoretical model presented in the literature review in Chapter 2. These hypotheses include:

1. The presence of civic community indicators will directly decrease levels of homicide in both urban and rural counties.
2. The presence of civic community indicators will mediate the effect of concentrated disadvantage and socioeconomic deprivation on crime in urban and rural counties.
3. The direct and mediating effects of civic community indicators will be stronger in rural counties.

In previous studies of aggregate rates of crime in urban areas researchers have employed ordinary least squares (OLS) regression estimation. To maintain consistency with previous research, I employ this technique in my analysis.

Tests of the cross sectional hypotheses require the estimation of two types of effects on homicide victimization. To test hypothesis 1, I estimate the direct effects of civic community measures on homicide victimization. To assess direct effects of the independent measures on race-specific rates of homicide victimization, I regress the race-specific homicide victimization rate on race-specific independent measures, civic community indicators, and control variables. Separate models are estimated for each measure of civic community .

To test hypothesis 2, I calculate and test for the indirect effect of concentrated disadvantage/socioeconomic deprivation on homicide victimization through civic

community indicators. Previous research employing these models estimate indirect effects using path analysis techniques (Shihadeh and Steffensmeier 1994; Shihadeh and Ousey 1998). For example, Shihadeh and Steffensmeier (1994) examine the mediating role of female headed families on the inequality and homicide relationship for African Americans in 1980. These authors estimate two models to calculate the indirect effect, one model predicting female headship and one model predicting homicide. Both models contain the same independent variables with the exception of female headship which becomes an independent variable in the homicide model. The indirect effect is calculated by multiplying the standardized coefficient for female headship from the homicide model by the standardized estimates derived from the female headship model. For example, to calculate the indirect effect of inequality through female headship, the authors multiply the standardized estimate of inequality from the model predicting female headship by the standardized coefficient from female headship from the model predicting homicide.

For the purposes of hypothesis 2, this method is sufficient. However, in hypothesis 3 I test for significant differences in the magnitudes of the indirect effects between urban and rural models. The path analysis method of multiplying standardized coefficients is not well suited to address this question for two reasons. First, path analysis measures the indirect effect as a standardized coefficient, which cannot be compared between models estimated from different samples. Because standardized coefficients are calculated by multiplying the metric OLS coefficient by a ratio of the standard deviations of the independent variable to the dependent variable within each model, differing sample sizes and variable distributions limit comparability between two independent samples.

Second, path analysis methods do not provide estimates of standard errors. Since standard errors are crucial to the calculation of significance tests when comparing regression coefficients across models, this method is limited.

To address these limitations, I estimate indirect effects using a different method that yields the same standardized estimate of the indirect effect but also provides unstandardized coefficients as well as the accompanying standard errors. To calculate the indirect effects I estimate two nested models. Nested models in this sense refers to a full and reduced model in which the full model contains all independent variables while the reduced model excludes some of the independent variables from the full model. In the first model (reduced model) I regress homicide victimization on measures of race-specific disadvantage and control measures. This reduced model takes the form:

$$\text{Homicide Victimization}=a+b^*_1(\text{Disadvantage Measure})+b^*_2(\text{Renters})+b^*_3(\text{Age 15-34})+b^*_4(\textit{ln}\text{Population})+b^*_5(\text{Vacant Housing})+b^*_6(\text{Structural Density})+\varepsilon$$

where homicide victimization refers to the race-specific rate of homicide victimization and *disadvantage measure* refers to either concentrated disadvantage or socioeconomic deprivation[4]. In the second portion of the nested model (full model) I include a measure of civic community[5]. This model constitutes the full model and takes the form:

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[4]Due to high correlation between the concentrated disadvantage scale and the socioeconomic deprivation scale, separate models are estimated for these variables. Variance Inflation Factors exceeding 7 were detected when both measures were included in the model. Estimating separate models for these measures corrected this problem and no Variance Inflation Factors exceed 2.5 in reported models.

[5] I estimate separate models for civic community measures due to intercorrelations between these two variables.

$$\text{Homicide Victimization}=a+b_1(\text{Disadvantage Measure})+b_2(\text{Renters})+b_3(\text{Age 15-34})+b_4(\textit{ln}\text{Population})+b_5(\text{Vacant Housing})+b_6(\text{Structural Density})+b_7(\text{Civic Community Measure})+\varepsilon$$

where *civic community measure* refers to local orientation or the number of churches per 1,000 church members.

The change in the value of a coefficient observed when the civic community measure is included in the full model represents the indirect effect of a given independent variable on homicide through the civic community measure. To measure observed changes in coefficients within two nested models, I follow the method described by Clogg et al. (1995b) which I describe below in detail.

The unstandardized estimate of the indirect effect of a given variable through the civic community measure is calculated as the difference in a coefficient between the reduced (b_i*) and full model (b_i). Thus, the formula for the estimate of the unstandardized coefficient for the indirect effect is:

$$d=b_i^*-b_i.$$

Following convention, I calculate the standardized indirect effect by multiplying the unstandardized coefficient by the ratio of the standard deviation of the independent variable and the dependent variable in the analysis (Knoke and Bohrnstedt 1994). The formula for the standardized coefficient is:

$$\beta(d)=(b_i^*-b_i)(s_x/s_y)$$

where $b_i^*-b_i$ is the difference in the unstandardized coefficients from the full and reduced model, s_x is the standard deviation of the independent variable, and s_y is the standard

deviation of the dependent variable. To estimate the standard error of the indirect effect I employ the calculation described by Clogg et al. (1995b):

$$s(d)=[s^2(b_i^*)+s^2(b_i)-2(s^2(b_i^*))(MSE^2_{Full}/MSE^2_{reduced})]^{1/2}$$

This formula differs from Clogg et al. (1995a) in that it estimates the unconditional variance of s(d) suggested by Allison (1995). In other words, this estimate of the standard error is a more conservative estimate yielding a more stringent test of significance.

The test statistic for significance of the indirect effect follows a Z distribution and is calculated as:

$$Z=d_{\text{indirect effect}}/s(d)_{\text{indirect effect}}$$

Following convention, the indirect effect is considered significant if the Z value is greater than or equal to 1.96 indicating a probability of error of less than .05 in a two tailed test.

To test hypothesis 3, I calculate a significance test for the difference in metric coefficients between rural and urban models. I perform these tests for both direct and indirect effects. The proper test for invariance in OLS estimates identified by Clogg et al. (1995) is calculated as:

$$Z=d_{rural}-d_{urban}/(s(d)_{rural}^2+s(d)_{urban}^2)^{1/2}$$

where d represents the direct or indirect effect for urban or rural counties and S.E. refers to the standard error of the direct or indirect effect of urban or rural counties.

Example of Indirect Effect Calculation

To demonstrate the comparability between the path analysis method and nested model approach to calculating indirect effects, I provide a brief example in Table 8.

Variables in the models are described in Chapter 3. In Table 8, I estimate three models for African Americans in rural counties: a reduced model predicting homicide victimization for African Americans (Model 1), a full model predicting homicide for African Americans (Model 2), and a model predicting churches per 1,000 members (Model 3). To estimate the indirect effect of concentrated disadvantage on homicide victimization mediated by churches using path analysis techniques, I multiply the standardized coefficient for churches per 1,000 members in Model 2 (-.1340) by the standardized coefficient for concentrated disadvantage listed in Model 3 (-.4505). Thus, the indirect effect of concentrated disadvantage on homicide through churches is .0604 and significant indicating that concentrated disadvantage indirectly influences homicide by reducing the number of churches per thousand.

As noted earlier, the interpretation of standardized estimates is limited to the context of a single model. Since hypothesis three requires a test to establish significant differences in indirect effects between urban and rural models, I must calculate the unstandardized coefficient for the indirect effect. To do this, I estimate a reduced model that includes concentrated disadvantage and proportion African American (Model 1) and estimate a full model that includes concentrated disadvantage, proportion renters, and churches per 1,000 members (Model 2).

For example, the unstandardized coefficient for the indirect effect of concentrated disadvantage on homicide through churches per 1,000 members is calculated as the coefficient from the reduced model minus the coefficient from the full model (.6489-.5439). The resulting value is .10508 indicating that one unit increase in

Table 8. Comparability Between Path Analysis Method and Nested Model Approach (Rural Counties, N=707)

	Descriptive Statistics	Model 1 (Reduced-Predicting Homicide)		Model 2 (Full-Predicting Homicide)		Model 3 (Predicting Churches Per 1,000)		Estimate of Indirect Effect	
	Mean (S.D.)	b* s(b*)	β*	b (s.e.)	β	b s(b)	β	b(d) s(d)	β(d)
Concentrated Disadvantage	-.0914 (.94412)	.6489* (.0626)	.37265	.54386* (.0692)	.312	-1.0427* (.07957)	-.450	.1051* (.0314)	.060
AA Renters	.17988 (.3583)	.30181 (.1648)	.06578	.25429 (.1642)	.055	-.4715* (.20963)	-.077	.0475 (.0247)	.010
Churches Per 1,000	6.010 (2.185)	----	----	-.1007834* (.0294090)	-.134				
Intercept		2.1698		2.7744		.0060			
R^2		.16		.17		.23			
Mean Square Error		2.2872		2.25282		.000004			
Log African American Homicide Victimization	2.1647 (1.6441)								

* $p<.05$ two tailed test

concentrated disadvantage yields a .10508 indirect increase in homicide victimization through its effect on the number of churches per 1,000 members. Additionally, this finding indicates that churches mediate 16.2% of the effect of concentrated disadvantage on homicide victimization (.10508/.6489).

Applying the Clogg et al. (1995b) formula for calculating the standard error for this coefficient yields a value of .0314 indicating that the indirect effect of concentrated disadvantage through churches is significant. Finally, to verify that the nested model approach accurately measures the indirect effect, I calculate the standardized coefficient from the information provided in the nested models. The results indicate that the standardized estimate of the indirect effect is .0604. This number is obtained by multiplying the unstandardized coefficient (.10508) by the ratio of the standard deviation of the independent variable (.9441) to the dependent variable (1.6441).

In the following three sections I provide evidence testing hypotheses 1-3. Hypotheses 1 and 2 are addressed in the Analysis of Direct and Indirect Effects section. Tests of hypothesis 3 are presented in section 3 entitled Differences in Direct and Indirect Effects. I conclude this chapter with a summary of findings and results of hypothesis tests.

Analysis of Direct and Indirect Effects: African American Homicide Victimization

OLS regression estimates for African Americans are reported in Tables 9 through 16. I estimate separate models for each type of civic community indicator due to intercorrelations between local orientation and churches per 1,000 members. Table 9

examines the effect of the local orientation scale and provides OLS regression estimates of African American Homicide victimization in urban counties. The results from the full model (model 2) indicate that local orientation has no significant effect on African American homicide victimization in urban counties.

The key finding from this model is that concentrated disadvantage exerts a strong positive influence on homicide victimization. Thus, increases in concentrated disadvantage yields higher rates of homicide for African Americans. This finding supports previous research stressing the importance of geographic concentration of disadvantage (Peterson and Krivo 1999; Lee 2000). Additionally, the log of the population size and structural density have a positive relation to homicide victimization.

Column 3 of Table 9 reports unstandardized indirect effect coefficients mediated by local orientation. The findings indicate that none of the independent variables in this model have a significant indirect effect on African American homicide victimization. Of key interest to the hypotheses examined in this analysis, it is important to note that the effect of concentrated disadvantage on homicide victimization operates independently of local orientation.

In Table 10, I estimate the same equation for rural counties. The results for key independent variables in this model are similar to the results for urban counties. Local orientation has no significant effect on African American homicide victimization net of the effect of concentrated poverty. Compared to the coefficient for local orientation in urban counties, the t-value for rural counties is not significant at the .05 level for a one-tailed test (1.58).

Table 9. Unstandardized OLS Regression Coefficients Predicting African American Homicide Victimization in Urban Counties (N=119), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Local Orientation
Civic Community Measure			
Local Orientation Scale	----	-.005	----
		(.079)	
AA Disadvantage Measure			
Concentrated Disadvantage Scale	.331 *	.330 *	.001
	(.048)	(.051)	(.016)
Control Variables			
Proportion AA Renters	.518	.515	.003
	(.283)	(.287)	(.028)
Proportion AA males age 15-24	-1.082	-1.061	-.021
	(2.602)	(2.633)	(.195)
Population Size (log)	.154 *	.154 *	0.00
	(.076)	(.077)	(.007)
Proportion Vacant Housing	2.117	2.127	-.01
	(1.561)	(1.575)	(.125)
Structural Density	1.592 *	1.159 *	.433 *
	(.554)	(.557)	(.011)
Intercept	.355	.339	
Mean Squared Error	.327	.330	
R^2	.46	.46	

Note: standard error in parentheses
* $p<.05$ two tailed test

The coefficient for concentrated disadvantage in the full model is significant and reliable given the t-value of 8.74. The value of the coefficient, .577, indicates that a one unit increase in concentrated disadvantage increases the rate of homicide victimization for African Americans by .577 per 100,000. Interestingly, the magnitude of the concentrated disadvantage coefficient in rural counties (.577) is over one and one half times as large as the coefficient for urban counties (.330). Significance tests for these differences are presented later in this chapter.

The full model in Table 10 (Model 2) indicates that no control measure has a significant impact on homicide after controlling for local orientation. This differs from the urban model where population size and structural density exhibited significant effects on homicide. An additional difference between the urban and rural model is that the model fit for urban counties (.45) is over twice as large as the fit for rural counties (.18). This finding indicates that additional theoretical work is required to better explain homicide in rural counties in the U.S.

Table 11reports results from models predicting homicide victimization for African Americans. These models assess the effect of churches on homicide, net of the effect of concentrated disadvantage and control measures for urban counties. The results in Model 2 indicate that the number of churches per 1,000 members has no significant effect on homicide victimization for African Americans.

The coefficient for concentrated disadvantage, however, is positive and significant. The value of the coefficient, .324, indicates that a one unit increase in concentrated disadvantage results in a homicide rate increase of .324 per 100,000. This

Table 10. Unstandardized OLS Regression Coefficients Predicting African American Homicide Victimization in Rural Counties (N=707), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Local Orientation
Civic Community Measure			
Local Orientation Scale	----	-.129	----
		(.082)	
AA Disadvantage Measure			
Concentrated Disadvantage Scale	.612 *	.577 *	.035
	(.063)	(.066)	(.020)
Control Variables			
Proportion AA Renters	.187	.197	-.01
	(.167)	(.167)	(.01)
Proportion AA males age 15-24	-.948	-.980	.032
	(.605)	(.605)	(.040)
Population Size (log)	.214 *	.161	.053
	(.086)	(.092)	(.033)
Proportion Vacant Housing	-2.197 *	-1.580	-.617
	(.881)	(.961)	(.388)
Structural Density	-.286	-.753	.467
	(.780)	(.833)	(.297)
Intercept	.620	1.185	
Mean Squared Error	2.238	2.233	
R^2	.18	.18	

Note: standard error in parentheses
* $p<.05$ two tailed test

finding is consistent with the models presented in Table 9. Additionally, the model fit for the full model in Table 11 (R^2=.46) is the same as the fit for the urban model in Table 9.

Few control variables have a significant impact on homicide victimization for African Americans. The log of the population size is significant and positive, indicating that an increase in population size in an urban county is associated with an increase in homicide. With respect to the indirect effects listed in the third column of Table 11 only one significant indirect effect is present. Structural density has a positive indirect effect on homicide victimization. This finding indicates that urban counties with a higher level of structural density (i.e. proportion of housing units located in structures with 5 units or more) have fewer churches per member yielding higher rates of African American homicide victimization.

Table 12 evaluates the effect of churches in rural counties net of the effect of concentrated disadvantage. This model has a number of notable findings. First, the number of churches per 1,000 members is significantly related to homicide victimization for African Americans. An increase of one church per 1,000 members is associated with a reduction in the rate of homicide victimization of .083 per 100,000. This finding indicates that church size is strongly associated with levels of social control in the community. Previous studies of crime employing social disorganization arguments have not accounted for this characteristic of the broader community. This finding also suggests that social control mechanisms transcending neighborhood boundaries may play an important role in influencing levels of crime in rural counties.

Table 11. Unstandardized OLS Regression Coefficients Predicting African American Homicide Victimization in Urban Counties (N=119), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Churches
Civic Community Measure			
Churches Per 1,000	----	-.018	----
		(.041)	
AA Disadvantage Measure			
Concentrated Disadvantage Scale	.331 *	.324 *	.007
	(.048)	(.051)	(.016)
Control Variables			
Proportion AA Renters	.518	.523	-.005
	(.283)	(.284)	(.014)
Proportion AA males age 15-24	-1.082	-1.212	.130
	(2.602)	(2.628)	(.230)
Population Size (log)	.154 *	.155 *	-.001
	(.076)	(.076)	(.009)
Proportion Vacant Housing	2.117	1.995	.122
	(1.561)	(1.590)	(.248)
Structural Density	1.592 *	1.093	.499 *
	(.554)	(.575)	(.141)
Intercept	.355	.456	
Mean Squared Error	.327	.329	
R^2	.46	.46	

Note: standard error in parentheses
* $p<.05$ two tailed test

The coefficient for concentrated disadvantage in Model 2 (Full Model) is positive and significant. This finding indicates that a one unit increase in concentrated disadvantage yields an increase of .527 African American homicide victims per 100,000. Only one of the control variables in the model is significant. Proportion vacant housing is negatively related to homicide victimization indicating that the presence of vacant housing is associated with lower levels of homicide for African Americans in rural counties. As mentioned previously in the bivariate section, this finding is not consistent with studies of urban areas where vacant housing is suggested to be positively related to homicide (Skogan 1992). One potential explanation for this discrepancy is that vacant housing in rural counties is associated with de-population. Studies of rural counties examining population change find that population growth is associated with higher rates of crime (Barnett and Mencken 2000). If vacancy is a proxy for out-migration, I would expect a negative relationship between vacancy and homicide.

A number of significant indirect effects are present in this model. Concentrated disadvantage has a positive and significant indirect effect on homicide victimization via churches. Approximately 14% (.085/.612) of the total effect observed in Model 1 of concentrated disadvantage on homicide victimization is mediated by per capita churches. Thus, counties with a high level of concentrated disadvantage have fewer churches per 1,000 members, yielding higher rates of homicide victimization. Significant indirect effects for two of the control measures in the model are also present. The indirect effect of log of the population size on homicide through churches is significant. This finding indicates that more populated counties have fewer churches per member yielding higher

Table 12. Unstandardized OLS Regression Coefficients Predicting African American Homicide Victimization in Rural Counties (N=707), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Churches
Civic Community Measure			
Churches Per 1,000	----	-.083 *	----
		(.030)	
AA Disadvantage Measure			
Concentrated Disadvantage Scale	.612 *	.527 *	.085 *
	(.063)	(.070)	(.032)
Control Variables			
Proportion AA Renters	.187	.169	.018
	(.167)	(.166)	(.014)
Proportion AA males age 15-24	-.948	-1.045	.097
	(.605)	(.604)	(.075)
Population Size (log)	.214 *	.162	.052 *
	(.086)	(.087)	(.018)
Proportion Vacant Housing	-2.197 *	-2.170 *	-0.027
	(.881)	(.876)	(.076)
Structural Density	-.286	-.024	-.262 *
	(.780)	(.782)	(.120)
Intercept	.620	1.579	
Mean Squared Error	2.238	2.217	
R^2	.18	.19	

Note: standard error in parentheses
* $p<.05$ two tailed test

rates of homicide victimization. The indirect effect for structural density is negative and significant. This finding indicates that rural counties with higher proportions of dense housing have more churches per church member leading to lower levels of homicide victimization for African Americans.

Table 13 reports unstandardized OLS coefficients predicting African American homicide victimization for urban counties. The models presented in this table evaluate the effects of local orientation in urban counties net of the effect of socioeconomic deprivation and control measures. The coefficient for local orientation reported in Model 2 (Full Model) indicates that local orientation is negatively related to homicide victimization in urban counties. Thus, a one unit increase in local orientation yields a .116 reduction of the homicide victimization rate for African Americans.

The coefficient for socioeconomic deprivation is also a significant predictor of homicide. A one unit increase in socioeconomic deprivation results in a .497 increase in the African American homicide victimization rate. Other significant control variables in the model include population size and structural density. Both measures have a positive and significant relationship with African American homicide victimization in urban counties. Indirect effects through local orientation are not significant in this model. This finding indicates that with respect to local orientation, all variables in this model have direct effect independent of local orientation.

In Table 14 I examine the effect of local orientation of homicide victimization in rural counties net of the effect of socioeconomic deprivation and other control variables. The results from Model 2 indicate that local orientation is a significant predictor of

Table 13. Unstandardized OLS Regression Coefficients Predicting African American Homicide Victimization in Urban Counties (N=119), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Local Orientation
Civic Community Measure			
Local Orientation	----	-.116 + (.069)	----
AA Disadvantage Measure			
Socioeconomic Deprivation	.511 * (.062)	.497 * (.062)	.014 (.011)
Control Variables			
Proportion AA Renters	.364 (.267)	.307 (.268)	.057 (.055)
Proportion AA males age 15-24	.176 (2.465)	.666 (2.463)	-.49 (.446)
Population Size (log)	.218 * (.070)	.227 * (.070)	-.009 (.013)
Proportion Vacant Housing	1.569 (1.479)	1.660 (1.468)	-.091 (.207)
Structural Density	1.276 * (.523)	1.274 * (.519)	.002 (.072)
Intercept	-.132	-.428	
Mean Squared Error	.291	.286	
R^2	.52	.53	

Note: standard error in parentheses
* $p<.05$ two tailed test, +$p<.05$ one tailed test

homicide victimization. A one unit increase in the local orientation scale yields a .354 reduction in the rate of African American homicide victimization per 100,00 in rural counties. Interestingly, the local orientation effect in rural counties (-.354) is over three times as large as the effect in urban counties (-.116). Another key finding from this model is that model fit for rural and urban counties are drastically different. Model 2 (Full Model) of Table 14 explains 9% of the variance in rural African-American homicide victimization, while Model 2 (Full Model) of Table 13 explains 54% of the urban variance.

A second interesting finding in this model is the insignificance of socioeconomic deprivation. In contrast to the strong significant effect in urban counties (.497), the effect is not significantly different from zero in rural counties. Results presented in Model 2 also indicate that the proportion African American renters and the proportion of males age 15 to 24 are significantly related to homicide victimization in rural counties. Rural counties with a high proportion of African American renters have higher levels of African American homicide victimization. This finding suggests that any de-stabilization of community cohesion due to home renters has an adverse impact on homicide victimization. With respect to the age structure of the African American male population, the proportion of males age 15-24 is negatively related to homicide victimization. Researchers of urban areas suggest that the percentage of males in the most crime prone age group is directly related to levels of crime (Shihadeh and Flynn 1996). The opposite is true for rural counties. A higher percentage of males in the most crime-prone age group is related to lower levels of homicide victimization.

Table 14. Unstandardized OLS Regression Coefficients Predicting African American Homicide Victimization in Rural Counties (N=707), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Local Orientation
Civic Community Measure			
Local Orientation	----	-.354 * (.081)	----
AA Disadvantage Measure			
Socioeconomic Deprivation	.084 (.062)	.065 (.061)	.020 * (.008)
Control Variables			
Proportion AA Renters	.542 * (.173)	.516 * (.171)	.026 (.029)
Proportion AA males age 15-24	-1.639 * (.646)	-1.610 * (.638)	-.029 (.104)
Population Size (log)	.281 * (.091)	.126 (.097)	.155 * (.039)
Proportion Vacant Housing	-3.181 * (.938)	-1.331 (1.019)	-1.85 * (.450)
Structural Density	.714 (.834)	-.731 (.888)	1.445 * (.358)
Intercept	-.133	1.536	
Mean Squared Error	2.533	2.469	
R^2	.07	.09	

Note: standard error in parentheses
* $p<.05$ two tailed test

A number of indirect effects for this model are significant. The most important significant finding is the indirect effect of socioeconomic deprivation. While socioeconomic deprivation has no significant direct effect, it operates indirectly through local orientation. Socioeconomic deprivation is associated with lower levels of local orientation which reduces the effect of local orientation on homicide for African Americans. Thus, within the context of this model the effect of socioeconomic deprivation is completely mediated by local orientation. Additionally, population size, vacant hosing, and structural density have significant indirect effects on homicide. Both population size and structural density are related to lower levels of local orientation which yields higher levels of African American homicide victimization. Vacant housing, in contrast, is associated with higher levels of local orientation yielding lower levels of homicide victimization.

Table 15 reports OLS regression estimates predicting urban African-American homicide victimization with churches per 1,000 members net of the effect of socioeconomic deprivation and control variables. The findings indicate that churches per 1,000 has a significant effect on homicide. An increase of one church per 1,000 members yields a .083 decrease in the rate of African American homicide victimization per 100,000.

Socioeconomic deprivation also exhibits a significant effect on homicide. A one unit increase in socioeconomic deprivation is associated with a .501 increase in African American homicide victimization per 100,000. The only control variable significantly related to homicide is population size. This finding indicates that urban counties with a

larger population have a higher rate of African American homicide victimization. None of the indirect effects for this model are significant.

In Table 16 I estimate OLS models predicting African American homicide victimization with churches per 1,000 members net of the effect of socioeconomic deprivation and other control measures. The coefficient for churches is negative and significant. This finding indicates that an increase of one church per 1,000 members results in a decrease of 181.816 in the rate of African American homicide per 100,00. Compared to the same coefficient for urban counties reported in Model 2 (Full Model) in Table 15, the coefficient for rural counties is over twice as large. As noted earlier, I test for the significance of these differences at the end of this chapter.

Socioeconomic deprivation has no significant effect on homicide. Three of the control variables have significant effects on homicide victimization for African Americans. The proportion renters is related to higher levels of homicide. The proportion African American males age 15-24 and proportion vacant housing are negatively related to homicide victimization.

Unlike the model for urban counties, there are a number of significant indirect effects for rural counties. The key finding among the indirect effects operating through churches is the indirect effect of socioeconomic deprivation. A higher level of socioeconomic deprivation is related to fewer churches per 1,000 members, thus higher rates of homicide. Interestingly, the total effect (direct effect plus indirect effect) of socioeconomic deprivation on homicide is mediated by churches. Two other control variables have indirect effects through churches. Both the proportion African American

Table 15. Unstandardized OLS Regression Coefficients Predicting African American Homicide Victimization in Urban Counties (N=119), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Churches
Civic Community Measure			
Churches Per 1,000	----	-.083 *	----
		(.036)	
AA Disadvantage Measure			
Socioeconomic Deprivation	.511 *	.501 *	.010
	(.062)	(.061)	(.014)
Control Variables			
Proportion AA Renters	.364	.386	-.022
	(.267)	(.263)	(.061)
Proportion AA males age 15-24	.176	-.344	.520
	(2.465)	(2.429)	(.570)
Population Size (log)	.218 *	.216 *	.002
	(.070)	(.069)	(.016)
Proportion Vacant Housing	1.569	.831	.738
	(1.479)	(1.485)	(.445)
Structural Density	1.276 *	.995	.281
	(.523)	(.527)	(.163)
Intercept	-.132	.411	
Mean Squared Error	.291	.279	
R^2	.52	.54	

Note: standard error in parentheses
* $p<.05$ two tailed test

Table 16. Unstandardized OLS Regression Coefficients Predicting African American Homicide Victimization in Rural Counties (N=707), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Churches
Civic Community Measures			
Churches Per 1,000	----	-.182 * (.028)	----
AA Disadvantage Measure			
Socioeconomic Deprivation	.084 (.062)	.032 (.061)	.052 * (.017)
Control Variables			
Proportion AA Renters	.542 * (.173)	.402 * (.170)	.140 * (.047)
Proportion AA males age 15-24	-1.639 * (.646)	-1.606 * (.629)	-.033 (.153)
Population Size (log)	.281 * (.091)	.144 (.091)	.137 * (.030)
Proportion Vacant Housing	-3.181 * (.938)	-2.780 * (.914)	-.401 (.225)
Structural Density	.714 (.834)	.933 (.812)	-.219 (.197)
Intercept	-.133	2.230	
Mean Squared Error	2.533	2.396	
R^2	.07	.12	

Note: standard error in parentheses
* $p<.05$ two tailed test

renters and the population size are negatively related to the number of churches per 1,000 members. As these factors increase, the number of churches per 1,000 members decreases leading to higher rates of homicide.

Analysis of Direct and Indirect Effects: White Homicide Victimization

OLS regression estimates for whites are reported in Tables 17 through 24. Table 17 examines the effect of the local orientation scale and provides OLS regression estimates of white Homicide victimization in urban counties. The results from the full model (model 2) indicate that local orientation has no significant direct effect on white homicide victimization in urban counties.

The most important finding from this model is that concentrated disadvantage exerts a strong positive influence on homicide victimization. The coefficient for this measure is .185 in Model 2 (Full Model) indicating that a one unit increase in the level of concentrated disadvantage yields an increase of .185 in the rate of white homicide victimization per 100,000. Thus, increases in concentrated disadvantage have a substantial impact on rates of homicide for whites. This finding supports previous research stressing the importance of the spatial concentration of disadvantage (Peterson and Krivo 1999; Lee 2000). Additionally, the log of the population size, proportion vacant housing, and structural density have a positive relation to homicide victimization.

The last column of Table 17 reports unstandardized indirect effect coefficients mediated by local orientation. The findings indicate that only one of the independent variables in this model has a significant indirect effect on white homicide victimization. Concentrated disadvantage has a small indirect effect mediated by local orientation. This

Table 17. Unstandardized OLS Regression Coefficients Predicting White Homicide Victimization in Urban Counties (N=119), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Local Orientation
Civic Community Measure			
Local Orientation	----	-.069 (.067)	----
White Disadvantage Measure			
Concentrated Disadvantage	.187 * (.066)	.185 * (.066)	.002 + (.001)
Control Variables			
Proportion White Renters	.242 (.492)	.189 (.494)	.053 (.044)
Proportion White males age 15-24	-.629 (2.613)	-.966 (2.633)	.337 (.324)
Population Size (log)	.154 * (.068)	.160 * (.068)	-.006 (.005)
Proportion Vacant Housing	4.363 * (1.425)	4.339 * (1.426)	.024 (.053)
Structural Density	2.194 * (.588)	2.185 * (.588)	-.009 (.013)
Intercept	-1.299	-1.369	
Mean Squared Error	.270	.270	
R^2	.40	.41	

Note: standard error in parentheses
* p<.05 two tailed test, +p<.05 one tailed test

finding indicates that increases in concentrated disadvantage are associated with decreases in churches per 1,000 members that may increase homicide victimization for whites. It is important to caution that the insignificance of local orientation on homicide brings into question the reliability of this finding.

In Table 18 I estimate the same equation for rural counties. The results for the main independent variables in this model are similar to the results obtained from the urban model. Local orientation has no significant effect on white homicide victimization net of the effect of concentrated disadvantage.

The coefficient for concentrated disadvantage in Model 2 (Full Model) is significant. The value of the coefficient, .074, indicates that a one unit increase in concentrated disadvantage increases the rate of homicide victimization for whites by .074 per 100,000. Interestingly, the magnitude of the concentrated disadvantage coefficient in rural counties (.074) is substantially smaller than the coefficient for urban counties (.185). As noted earlier, significance tests for these differences are presented later in this chapter. An additional difference between the urban and rural model is that the model fit for urban counties (.41) is over twice as large as the fit for rural counties (.02).

The full model in Table 18 (Model 2) indicates that only one control measure has a significant impact on homicide after controlling for local orientation. Structural density has a negative effect on homicide victimization for whites. In other words, as housing becomes more dense (i.e. greater proportion of housing units located in structures with five or more units), homicide rates decrease.

Table 18. Unstandardized OLS Regression Coefficients Predicting White Homicide Victimization in Rural Counties (N=707), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Local Orientation
Civic Community Measure			
Local Orientation	----	-.053 (.050)	----
White Disadvantage Measure			
Concentrated Disadvantage	.063 + (.036)	.074 * (.038)	-.011 (.012)
Control Variables			
Proportion White Renters	-.136 (.118)	-.131 (.118)	-.005 (.012)
Proportion White males age 15-24	-1.571 (1.176)	-1.238 (1.178)	-.333 * (.069)
Population Size (log)	.140 * (.055)	.112 (.061)	.028 (.026)
Proportion Vacant Housing	.125 (.585)	.369 (.628)	-.244 (.228)
Structural Density	-.889 (.504)	-1.082 * (.536)	.193 (.182)
Intercept	.674	.980	
Mean Squared Error	.868	.868	
R^2	.02	.02	

Note: standard error in parentheses
* $p<.05$ two tailed test, +$p<.05$ one tailed test

With respect to indirect effects operating through local orientation, only one variable has a significant indirect effect. The proportion white males age 15-24 has a negative indirect effect indicating that as the proportion of males in this age category increases, local orientation also increases. Theoretically, the increase in local orientation should reduce crime, however the insignificance of the direct effect of local orientation indicates that this indirect effect is questionable.

OLS regression coefficients in Table 19 examine the effect of churches per 1,000 members on homicide net of the effect of concentrated disadvantage and control measures for urban counties. The results in Model 2 indicate that churches have a significant effect on homicide victimization for whites. The coefficient indicates that an increase of one church per 1,000 members yields a reduction in the rate of white homicide victimization of .102 per 100,000.

The coefficient for concentrated disadvantage is positive and significant. The value of the coefficient from the Model 2 (Full Model), .235, indicates that a one unit increase in concentrated disadvantage results in a homicide rate increase of .235 per 100,000. This finding suggests that concentrated disadvantage plays a significant role in predicting levels of white homicide.

Three control variables also have a significant impact on homicide victimization for whites. The log of the population size, proportion vacant housing, and structural density are all significant and positive indicating that an increase in any of these variables in an urban county is associated with an increase in homicide victimization for whites.

Table 19. Unstandardized OLS Regression Coefficients Predicting White Homicide Victimization in Urban Counties (N=119), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Churches
Civic Community Measure			
Churches Per 1,000	----	-.102 * (.036)	----
White Disadvantage Measure			
Concentrated Disadvantage	.187 * (.066)	.235 * (.067)	-.048 * (.024)
Control Variables			
Proportion White Renters	.242 (.492)	.501 (.486)	-.259 (.151)
Proportion White males age 15-24	-.629 (2.613)	-2.588 (2.632)	1.959 * (.954)
Population Size (log)	.154 * (.068)	.138 * (.067)	.016 (.020)
Proportion Vacant Housing	4.363 * (1.426)	3.225 * (1.443)	1.138 * (.538)
Structural Density	2.194 * (.588)	1.749 * (.592)	.445 * (.214)
Intercept	-1.299	-.332	
Mean Squared Error	.270	.254	
R^2	.40	.44	

Note: standard error in parentheses
* $p<.05$ two tailed test

With respect to the indirect effects listed in Table 19 a number of significant indirect effects are present. First, concentrated disadvantage has a negative indirect effect on homicide victimization through churches per 1,000 members. This finding indicates that higher levels of concentrated disadvantage are associated with a greater number of churches per 1,000 church members in urban counties, thus reducing levels of homicide. An interesting implication of this finding is that counties with higher levels of civic community have higher levels of white concentrated poverty. This finding is the exact opposite for African American since the most civic counties had the lowest levels of African American concentrated disadvantage. Other significant indirect effects include the proportion white males age 15-24, proportion vacant housing, and structural density. All of these factors are related to lower numbers of churches per 1,000 members and higher levels of homicide victimization for whites.

Table 20 evaluates the effect of churches in rural counties net of the effect of concentrated disadvantage. This model has a number of notable findings. First, the number of churches per 1,000 church members is not significantly related to homicide victimization for whites. Unlike the model for urban counties in Table 19, churches has no significant effect.

The coefficient for concentrated disadvantage in Model 2 (Full Model) is positive and significant. This finding indicates that a one unit increase in concentrated disadvantage yields an increase of .077 in the white homicide victimization rate per 100,000. Only one of the control variables in the model is significant. Population size is positively related to homicide victimization indicating that larger rural counties have

higher levels of white homicide victimization. With respect to indirect effects, only one indirect effect is significant. The proportion white males age 15-24 indirectly effects levels of white homicide due to its positive association with the number of churches per member.

Table 21 reports unstandardized OLS coefficients predicting white homicide victimization for urban counties. The models presented in this table evaluate the effect of local orientation in urban counties net of the effect of socioeconomic deprivation and other control measures. The coefficient for local orientation reported in Model 2 (Full Model) indicates that local orientation is not significantly related to homicide victimization in urban counties.

The coefficient for socioeconomic deprivation, however, is a significant predictor of homicide victimization for whites. A one unit increase in socioeconomic deprivation results in a .395 increase in the white homicide victimization rate per 100,000. Other significant control variables in the model include population size and structural density. Both measures have a positive.and significant relationship with white homicide victimization in urban counties. Indirect effects through local orientation are not significant in this model. This finding indicates that all variables in this model effect white homicide victimization independent of local orientation.

In Table 22 I examine the effect of local orientation of homicide victimization in rural counties. The results from Model 2 (Full Model) indicate that local orientation is not a significant predictor of homicide victimization. The most important finding from this model when compared to the same model for urban counties is the difference in

Table 20. Unstandardized OLS Regression Coefficients Predicting White Homicide Victimization in Rural Counties (N=707), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Churches
Civic Community Measure			
Churches Per 1,000	---	-.016	---
		(.018)	
White Disadvantage Measure			
Concentrated Disadvantage	.063 +	.077 +	-.014
	(.036)	(.040)	(.017)
Control Variables			
Proportion White Renters	-.136	-.146	.010
	(.118)	(.118)	(.007)
Proportion White males age 15-24	-1.571	-1.181	-.390 *
	(1.176)	(1.176)	(.016)
Population Size (log)	.140 *	.122 *	.018
	(.055)	(.058)	(.018)
Proportion Vacant Housing	.125	.135	-.010
	(.585)	(.585)	(.015)
Structural Density	-.889	-.848	-.041
	(.504)	(.507)	(.053)
Intercept	.674	.943	
Mean Squared Error	.868	.869	
R^2	.02	.02	

Note: standard error in parentheses
* $p<.05$ two tailed test, +$p<.05$ one tailed test

Table 21. Unstandardized OLS Regression Coefficients Predicting White Homicide Victimization in Urban Counties (N=119), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Local Orientation
Civic Community Measure			
Local Orientation	----	-.079 (.060)	----
White Disadvantage Measure			
Socioeconomic Deprivation	.394 * (.067)	.395 * (.067)	-.001 (.006)
Control Variables			
Proportion White Renters	.273 (.445)	.211 (.446)	.062 (.052)
Proportion White males age 15-24	-1.259 (2.347)	-1.669 (2.361)	.410 (.340)
Population Size (log)	.136 * (.062)	.142 * (.062)	-.006 (.006)
Proportion Vacant Housing	2.647 * (1.334)	2.599 (1.331)	.048 (.090)
Structural Density	1.851 * (.525)	1.845 * (.523)	.006 (.020)
Intercept	-.539	-.607	
Mean Squared Error	.221	.220	
R^2	.51	.52	

Note: standard error in parentheses
* $p<.05$ two tailed test

model fit. Model 2 (Full Model) of Table 22 explains 3% of the variance in homicide victimization, while Model 2 (Full Model) of Table 22 explains 52% of the variance.

Another finding in this model is the effect of socioeconomic deprivation. In contrast to the coefficient for urban counties (.395), the effect for rural counties is smaller (.109). Results presented in Model 2 also indicate that population size and structural density are significantly related to white homicide victimization in rural counties. Rural counties with a large population have higher levels of white homicide victimization than smaller counties. With respect to structural density, the proportion of housing units located in structures containing five or more housing units is associated with lower levels of homicide victimization for whites. Higher levels of local orientation yielding lower levels of homicide victimization. Finally, only one indirect effect is significant in this model. Socioeconomic deprivation indirectly effects homicide victimization by its positive association with local orientation.

Table 23 reports OLS regression estimates predicting white homicide victimization with churches per 1,000 members net of the effect of socioeconomic deprivation and control variables. The findings indicate that the measure of churches has a significant effect on homicide. An increase of one church per 1,000 members yields a .129 decrease in the rate of white homicide victimization per 100,000.

Socioeconomic deprivation also exhibits a significant effect on homicide. A one unit increase in socioeconomic deprivation is associated with a .464 increase in the white homicide victimization rate per 100,000. The only control variable significantly related

Table 22. Unstandardized OLS Regression Coefficients Predicting White Homicide Victimization in Rural Counties (N=707), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Local Orientation
Civic Community Measure			
Local Orientation	----	-.050 (.049)	----
White Disadvantage Measure			
Socioeconomic Deprivation	.103 * (.036)	.109 * (.036)	-.006 * (.001)
Control Variables			
Proportion White Renters	-.139 (.117)	-.134 (.117)	-.005 (.003)
Proportion White males age 15-24	-1.373 (1.167)	-1.417 (1.168)	.044 (.048)
Population Size (log)	.152 * (.053)	.129 * (.057)	.023 (.021)
Proportion Vacant Housing	.219 (.577)	.468 (.626)	-.249 (.243)
Structural Density	-.932 (.499)	-1.126 * (.534)	.194 (.190)
Intercept	.567	.816	
Mean Squared Error	.862	.862	
R^2	.03	.03	

Note: standard error in parentheses
* $p<.05$ two tailed test

to homicide is structural density. This finding indicates that as structural density in urban counties increases, the rate of homicide victimization increases.

A number of indirect effects are significant in Table 23. Socioeconomic deprivation has a significant negative indirect effect through churches. This finding indicates that for urban counties the level of concentrated disadvantage is directly related to the number of churches per 1,000 members which reduces levels of homicide victimization for whites. Four other variables in the model have significant indirect effects on homicide victimization for whites. The proportion white renters indirectly effects homicide through its positive association with the proportion white renters. The proportion white males age 15-24, the proportion vacant housing, and structural density all have positive and significant indirect effects. Thus, increases in these measures are associated with fewer churches per 1,000 members increasing the rate of homicide victimization among whites.

In Table 24 I estimate OLS models evaluating the effect of churches per 1,000 members on homicide victimization net of the effect of socioeconomic deprivation and other control measures. The most important finding reported in this table is the lack of model fit. These models explain only three percent of the variance in white homicide victimization. The coefficient for the number of churches per 1,000 members is not significant. Unlike the coefficient for the urban model presented in Table 23, the church measure has no effect within the context of this model.

Socioeconomic deprivation, however, has a positive and significant effect on homicide victimization for whites in rural counties. This coefficient indicates that a one

Table 23. Unstandardized OLS Regression Coefficients Predicting White Homicide Victimization in Urban Counties (N=119), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Churches
Civic Community Measure			
Churches Per 1,000	----	-.129 * (.032)	----
White Disadvantage Measure			
Socioeconomic Deprivation	.394 * (.067)	.464 * (.065)	-.070 * (.028)
Control Variables			
Proportion White Renters	.273 (.445)	.613 (.426)	-.340 * (.173)
Proportion White males age 15-24	-1.259 (2.347)	-3.632 (2.279)	2.373 * (.991)
Population Size (log)	.136 * (.062)	.115 (.058)	.021 (.021)
Proportion Vacant Housing	2.647 * (1.334)	1.050 (1.313)	1.597 * (.603)
Structural Density	1.851 * (.525)	1.187 * (.519)	.664 * (.242)
Intercept	-.539	.735	
Mean Squared Error	.221	.195	
R^2	.51	.57	

Note: standard error in parentheses
* $p<.05$ two tailed test

unit increase in socioeconomic deprivation yields a .112 increase in white homicide victimization per 100,000. Only one of the control measures in Model 2 (Full Model) of Table 24 is significant. The population size of rural counties is a significant predictor of homicide indicating that large rural counties have higher rates of homicide than counties with a smaller population.

Differences in Direct and Indirect Effects

In this section I perform tests of hypothesis 3. Hypothesis 3 predicts that the direct and mediating effects of the civic community indicators will be stronger in rural counties. Table 25 provides tests for one portion of hypothesis 3. This analysis tests for differences in the direct effects of civic community indicators between urban and rural models. Panel 1 of Table 12 presents results for the differences in direct effects of civic community indicators and disadvantage measures on homicide victimization for African Americans and whites when controlling for concentrated disadvantage. For African American homicide victimization, the effect of local orientation and churches per 1,000 members is statistically equivalent in both urban and rural counties. These findings indicate that the effect of civic community measures net of the effect of concentrated disadvantage are the same for the rural and urban samples under study. With respect to white homicide victimization, the effect of local orientation is the same in both rural and urban counties when controlling for concentrated disadvantage. The direct effect of churches, however, is significantly smaller in urban counties. The coefficient for urban counties (-.102) is significantly smaller than the churches per 1,000 members coefficient in rural counties (-.016). This finding indicates that churches play a greater role in

Table 24. Unstandardized OLS Regression Coefficients Predicting White Homicide Victimization in Rural Counties (N=707), 1990

	Model 1 (Reduced)	Model 2 (Full)	Indirect Effect through Churches
Civic Community Measure			
Churches Per 1,000	----	-.023	----
		(.018)	
White Disadvantage Measure			
Socioeconomic Deprivation	.103 *	.122 *	-.019
	(.036)	(.038)	(.012)
Control Variables			
Proportion White Renters	-.139	-.154	.015
	(.117)	(.118)	(.016)
Proportion White age 15-24	-1.373	-1.389	.016
	(1.167)	(1.167)	(.056)
Population Size (log)	.152 *	.132 *	.020
	(.053)	(.055)	(.015)
Proportion Vacant Housing	.219	.271	-.052
	(.577)	(.578)	(.044)
Structural Density	-.932	-.895	-.037
	(.499)	(.500)	(.040)
Intercept	.567	.901	
Mean Squared Error	.862	.861	
R^2	.03	.03	

Note: standard error in parentheses
* $p<.05$ two tailed test

Table 25. Tests for Hypothesis 3--Differences in Direct Effects for Urban and Rural Models

	AA Homicide Victimization	White Homicide Victimization
Panel 1: Differences in Direct Effects When Controlling for Concentrated Disadvantage		
Local Orientation	.124	-.016
	(.114)	(.084)
Churches Per 1,000	.064	-.086*
	(.051)	(.041)
Panel 2: Differences in Direct Effects When Controlling for Socioeconomic Deprivation		
Local Orientation	.238*	-.029
	(.106)	(.077)
Churches Per 1,000	.098*	-.106*
	(.046)	(.037)

Note: each cell entry reports the difference between rural and urban coefficients (rural coefficient - urban coefficient) and the standard error of the difference is listed in parentheses
*p<.05 two tailed test

providing community-level social control in urban counties net of the effect of concentrated disadvantage.

In Panel 2 of Table 25, I examine the rural-urban difference in the direct effects of local orientation and churches net of the effect of socioeconomic deprivation. For African American homicide victimization, both local orientation and the number of churches per 1,000 members have stronger direct effects in rural counties. The direct effect of local orientation net of the effect of socioeconomic deprivation (-.354) is significantly different from the direct effect in urban counties (-.116). Thus, local orientation plays a greater role in reducing homicide victimization in rural counties when controlling for socioeconomic deprivation. For churches, the direct effect in rural counties is stronger than the effect in urban counties. The direct effect of the number of churches per 1,000 members net of the effect of socioeconomic deprivation (-.182) is significantly different from the direct effect in urban counties (-.083). As with the finding for local orientation, the number of churches per 1,000 members has a stronger effect in rural counties in models controlling for socioeconomic deprivation. Turning to the results for white homicide victimization, only churches exhibits a significant difference. The direct effect for local orientation is statistically equivalent in rural and urban counties. For the number of churches per 1,000 members, the direct effect in urban counties (-.129) is stronger than the effect in rural counties (-.023). Thus, number of churches per 1,000 members has a greater effect on white homicide victimization in urban counties.

In Table 26, I report results from tests for significant differences between urban and rural counties. In Panel 1 I examine differences in urban and rural coefficients for the indirect of concentrated disadvantage through civic community measures. Beginning with African American homicide victimization, the indirect effects of concentrated disadvantage on homicide victimization through local orientation are statistically equivalent in urban and rural counties. The indirect effect of concentrated disadvantage through the number of churches per 1,000 members is significant indicating that the coefficient for urban counties (.007) is significantly different from the coefficient for rural counties (.085). This finding indicates that concentrated disadvantage has a stronger effect on the number of churches per 1,000 members in rural counties. For white homicide victimization, indirect effects of concentrated disadvantage through either local orientation or churches is statistically equivalent in urban and rural counties.

In Panel 2 of Table 26 I report tests for significant urban-rural differences in the indirect effect of socioeconomic deprivation through civic community measures. For African American homicide victimization, there is no significant difference between urban and rural counties in the coefficients for the indirect effect of socioeconomic deprivation through local orientation. The indirect effect of socioeconomic deprivation through number of churches per 1,000 members in rural counties (.052) is significantly larger than the coefficient for urban counties (.010). This finding indicates that socioeconomic deprivation has a stronger indirect effect on African American homicide through churches in rural counties. Turning to the results for white homicide victimization, the indirect effect of socioeconomic deprivation through local orientation

Table 26. Tests for Hypothesis 3--Differences in Indirect Effects for Urban and Rural Models

	AA Homicide Victimization	White Homicide Victimization
Panel 1: Differences in Indirect Effects of Concentrated Disadvantage		
Through Local Orientation	-.034	.013
	(.026)	(.012)
Through Churches Per 1,000	-.078*	-.034
	(.036)	(.029)
Panel 2: Differences in Indirect Effects of Socioeconomic Deprivation		
Through Local Orientation	-.006	.005
	(.014)	(.006)
Through Churches Per 1,000	-.042+	-.001
	(.022)	(.030)

Note: each cell entry reports the difference between rural and urban coefficients (rural coefficient - urban coefficient) and the standard error of the difference is listed in parentheses
*p<.05 two tailed test

or the number of churches per 1,000 members is statistically equivalent in urban and rural counties. Thus, indirect effects of socioeconomic deprivation through any of the civic community measures are equal in rural and urban counties.

In Table 27, I test for significant differences in the effects of concentrated disadvantage and socioeconomic deprivation between urban and rural counties. The coefficients for rural and urban counties tested here come from the reduced models (Model 1) in the regression tables above. While no specific hypothesis is addressed in this table, the information provides a comparison of the effects of two types of socioeconomic disadvantage on violence in rural and urban counties. Briefly, the results indicate that the effect of concentrated disadvantage is larger in rural counties for African Americans and equal in rural and urban counties for whites. The effects of socioeconomic deprivation are statistically larger in urban counties for both African Americans and whites. These findings suggest that the geographic concentration of disadvantage in rural counties has similar detrimental effects on homicide.

Summary

Table 28 provides a summary of the findings from the cross-sectional analysis in this chapter. As a whole, this analysis has provided mixed support for the three hypotheses tested in this analysis. First, the civic community measures have a number of effects on African American homicide in rural and urban counties. For white homicide victimization, the only significant effects of civic community occur in the models including the number of churches per 1,000 members for urban counties. Second, significant mediating effects of civic community on African American homicide occur in

Table 27. Tests for Differences in Direct Effects of Concentrated Disadvantage and Socioeconomic Deprivation Between Urban and Rural Models

	AA Homicide Victimization	White Homicide Victimization
Concentrated Disadvantage	-.281*	.124
	(.079)	(.075)
Socioeconomic Deprivation	.427*	.291*
	(.088)	(.076)

Note: each cell entry reports the difference between rural and urban coefficients (rural coefficient - urban coefficient) and the standard error of the difference is listed in parentheses
*p<.05 two tailed test

rural counties only. In contrast, significant mediating effects of civic community on white homicide victimization largely occur in urban counties. Third, differences in direct and mediating effects of civic community tend to be stronger in rural counties. For white homicide, the majority of direct and mediating effects of civic community are equivalent in rural and urban counties. Overall, these findings suggest that the strongest support for the three hypotheses posed at the beginning of this chapter is garnered from models predicting African American homicide victimization.

In the next chapter, I expand on these findings by examining the effects of changes in civic community on changes in the rate of homicide victimization for African Americans and whites. Given the findings that levels of civic community are associated with levels of homicide victimization in some cases, the following chapter addresses the question: How is civic community related to changes in homicide victimization?

Table 28. Summary of Hypothesis Tests for Urban and Rural Models

	AA Homicide Victimization	White Homicide Victimization
Hypothesis 1: Direct Effects of Civic Community		
Local Orientation Scale	Significant in Urban and Rural When Controlling for Socioeconomic Deprivation	Not Significant in Any Model
Churches Per 1,000	Significant in Rural and Urban When Controlling for Socioeconomic Deprivation; Significant in Rural When Controlling for Concentrated Disadvantage	Significant in Urban When Controlling for Concentrated Disadvantage or Socioeconomic Deprivation
Hypothesis 2: Mediating Effects of Civic Community		
Indirect Effect on Homicide Victimization through Local Orientation		
Concentrated Disadvantage Scale	Not Significant in Any Model	Significant in Urban Only
Socioeconomic Deprivation Scale	Significant in Rural Only	Significant in Rural Only
Indirect Effect on Homicide Victimization through Churches		
Concentrated Disadvantage Scale	Significant in Rural Only	Significant in Urban Only
Socioeconomic Deprivation Scale	Significant in Rural Only	Significant in Urban Only
Hypothesis 3: Difference in Direct and Indirect Effects of Civic Community Measures Between Urban and Rural Counties		
Differences in Direct Effects When Controlling for Concentrated Disadvantage		
Local Orientation	Equal	Equal
Churches Per 1,000	Equal	Rural Coefficient is Smaller
Differences in Direct Effects When Controlling for Socioeconomic Deprivation		
Local Orientation	Rural Coefficient is Smaller	Equal
Churches Per 1,000	Rural Coefficient is Smaller	Urban Coefficient is Smaller
Differences in Indirect Effects of Concentrated Disadvantage		
Through Local Orientation	Equal	Equal
Through Churches	Rural Coefficient is Larger	Equal
Differences in Indirect Effects of Socioeconomic Deprivation		
Through Local Orientation	Equal	Equal
Through Churches	Rural Coefficient is Larger	Equal

CHAPTER 5: LONGITUDINAL METHODS AND MODELS

Estimation of Longitudinal Models

In this section of the analysis I estimate longitudinal models predicting changes in homicide victimization for African Americans and whites from 1980 to 1990. The purpose of this analysis is to explore dynamic relationships between civic community indicators and homicide victimization. Models presented in Chapter 4 provide support for the "static" or cross-sectional associations between civic community and homicide, but do not provide evidence regarding the causal nature of this relationship. Examining these relationships over time, however, provides some exploratory support for the existence of a causal relationship. The hypotheses tested in this chapter are:

4. Growth in civic community indicators from 1980 to 1990 is associated with declines in homicide victimization during the same time period in rural and urban counties.

5. The level of civic community indicators in 1980 is associated with declines in homicide victimization from 1980 to 1990 in rural and urban counties.

These hypotheses pose the question: Are levels of civic community in 1980 and changes in civic community during the 1980's associated with declines in homicide net of the effects of the level of socioeconomic deprivation in 1980 and changes in socioeconomic deprivation from 1980 to 1990.

OLS regression techniques testing for the significance of longitudinal relationships are often referred to as "change models" (Allison 1990). The two most common variations of these models include the change score method and the regressor

variable method. In the change score method, the dependent variable is calculated as the value of Y at time point 2 minus the value of Y at time point 1 (Y_{i2}-Y_{i1}) and regressed on a series of exogenous change scores (i.e. X_{i2}-X_{i1}). In the second approach, the regressor variable method, the value of Y at time point 2 is regressed on exogenous variables measured at time point 1 and the value of Y at time point 1.

Allison (1990) and Firebaugh and Beck (1994) both suggest that the change score method is preferable to the regressor variable method. According to these authors, the change score method is superior because it best accounts for omitted variable bias and unobserved heterogeneity. However, the change score method does not permit the researcher to enter time 1 variable into the model. This is especially problematic for the hypotheses tested here since the concern is not only to determine the association between change scores, but also examine the effect of time 1 independent variables on the change in homicide.

Morenoff and Sampson (1997) provide a modification to the change score method that allows for both change scores and time 1 variables called the residual change score method. Residual change scores are calculated by regressing the level of a variable at time 2 on the variable at time 1. Thus, the residual change score provides a change measure of a variable that is statistically independent of the level of the variable at time 1.

In the analyses presented here, I calculate residual change scores for both independent and dependent variables in the model. I also include time 1 (1980) independent variables for key theoretical variables in the model. The models take the general form:

$$\Delta Y_{i(1980,1990)}=\alpha+bX_{i1980}+\gamma(\Delta X_{i(1980,1990)})+\varepsilon_{i2}$$

where:

$$\Delta Y_{i(1980,1990)}=Y_{1990}-(\alpha+Y_{i1980})$$

and:

$$\Delta X_{i(1980,1990)}=X_{1990}-(\alpha+X_{i1980})$$

Residual Change Models for African American Homicide Victimization

Tables 29 through 32 test hypotheses 4 and 5 for African American homicide victimization in urban and rural counties in the analysis. As with the cross-sectional models presented in the previous chapter, I present separate models that control for concentrated disadvantage and socioeconomic deprivation in each table. In Table 29 Model 1, I estimate an OLS residual change model evaluating the effect of local orientation while controlling for concentrated disadvantage. The results indicate that the level of local orientation in 1980 has no significant effect on the residual change of African American homicide victimization from 1980 to 1990. Additionally, neither the 1980 level of concentrated disadvantage nor the residual change measures have significant effects on African American homicide in urban counties.

In Model 2 of Table 29, I estimate the model controlling for socioeconomic deprivation. Similar to Model 1, the level of local orientation in 1980 has no significant effect on homicide for African Americans. The 1980 level of socioeconomic disadvantage has a significant, positive effect on the change in homicide. This finding indicates that the level of socioeconomic deprivation in 1980 for urban counties increased the growth of the homicide victimization rate for African Americans. With respect to the

Table 29. Standardized OLS Regression Coefficients Predicting Residualized Change in African American Homicide Victimization with Local Orientation Scale in Urban Counties (N=119), 1980-1990

	Model 1	Model 2
10 Year Lag Variables		
Local Orientation Scale	-.198 (.126)	-.171 (.117)
Concentrated Disadvantage Scale	.024 (.050)	----
Socioeconomic Deprivation Scale	----	.139* (.067)
Residualized Change Variables		
Local Orientation Scale	-.013 (.075)	-.038 (.073)
Concentrated Disadvantage Scale	.035 (.100)	----
Socioeconomic Deprivation Scale	----	.232* (.114)
Proportion AA Renters	.148 (.263)	.199 (.249)
Proportion AA males age 15-34	-.695 (3.787)	2.995 (3.997)
Population Size (log)	-.556 (.389)	-.232 (.383)
Proportion Vacant Housing	-1.045 (2.091)	-.998 (2.045)
Structural Density	-3.124 (1.890)	-5.083* (1.960)
Intercept	-.245	-.200
R^2	.16	.21

Note: standard error in parentheses
* $p<.05$ two tailed test

residual change variables, counties experiencing increases in the level of socioeconomic deprivation during the 1980's also experienced increases in the rate of homicide victimization between 1980 and 1990. Additionally, the change in structural density is associated with declines in the homicide rate for African Americans. Thus, urban counties undergoing increases in housing density also experience declines in homicide victimization.

In Table 30, I report OLS residual change models predicting African American homicide victimization in rural counties. In Model 1, I evaluate the effect of local orientation net of the effect of concentrated disadvantage. The results indicate that the level of local orientation in 1980 is negatively associated with African American homicide victimization. Counties with a higher level of local orientation in 1980 experienced greater declines in homicide. The 10 year lagged variable for concentrated disadvantage is also significant. The coefficient for this measure is positive indicating that a high level of concentrated disadvantage in 1980 is associated with higher levels of growth in the homicide rate. With respect to residual change measures, the change in concentrated disadvantage from 1980 to 1990 is significantly related to changes in homicide victimization. Thus, counties experiencing growth in concentrated disadvantage during the 1980's also experienced increases in homicide victimization during the 1980's.

In Model 2, I assess the effect of local orientation net of the effect of socioeconomic deprivation. The level of local orientation in 1980 is related to reductions in the homicide rate for African Americans in rural counties. Higher levels of local

Table 30. Standardized OLS Regression Coefficients Predicting Residualized Change in African American Homicide Victimization with Local Orientation Scale in Rural Counties (N=707), 1980-1990

	Model 1	Model 2
10 Year Lag Variables		
Local Orientation Scale	-.142* (.065)	-.268* (.063)
Concentrated Disadvantage Scale	.284* (.065)	----
Socioeconomic Deprivation Scale	----	.125* (.056)
Residualized Change Variables		
Local Orientation Scale	-.122 (.115)	-.192 (.117)
Concentrated Disadvantage Scale	.417* (.091)	----
Socioeconomic Deprivation Scale	----	-.074 (.066)
Proportion AA Renters	.166 (.167)	.375* (.166)
Proportion AA males age 15-34	-1.058 (.932)	-1.259 (.960)
Population Size (log)	-.229 (.534)	-.807 (.564)
Proportion Vacant Housing	-2.298 (1.332)	-2.390 (1.367)
Structural Density	2.747 (1.517)	4.805* (1.517)
Intercept	.065	.052
R^2	.11	.08

Note: standard error in parentheses
* $p<.05$ two tailed test

orientation in 1980 are related to declines in homicide victimization during the 1980's. The lagged measure of socioeconomic deprivation is also significantly related to the change in homicide victimization. Higher levels of socioeconomic deprivation in 1980 are associated with increases in homicide for African Americans in rural counties. The only significant residual change measures in Model 2 are proportion renters and structural density. Increases in renters and structural density in rural counties during the 1980's are associated with increases in homicide from 1980 to 1990.

Table 31 presents models predicting the decennial change in African American homicide victimization with the number of churches per 1,000 members for urban counties. In model 1, the 10 year lag measure of number of churches per 1,000 members is significantly related to changes in homicide during the 1980's. The results indicate that a larger number of churches per 1,000 members in 1980 resulted in a greater reduction of homicide victimization during from 1980 to 1990. Additionally, urban counties that experienced growth in the number of churches per 1,000 members also experienced a simultaneous decline in homicide victimization. Thus, net of the effect of both measures of concentrated disadvantage, the number of churches per 1,000 members reduced the level of homicide victimization during the 1980's. With respect to the remainder of the residual change measures, population growth in urban counties is associated with declines in the homicide rate.

In Model 2, I evaluate the effect of the number of churches per 1,000 members on homicide net of the effect of socioeconomic disadvantage. The findings indicate that the number of churches per 1,000 members in 1980 is associated with declines in homicide

Table 31. Standardized OLS Regression Coefficients Predicting Residualized Change in African American Homicide Victimization with Churches Per 1,000 in Urban Counties (N=119), 1980-1990

	Model 1	Model 2
10 Year Lag Variables		
Churches Per 1,000	-.084+ (.045)	-.073+ (.041)
Concentrated Disadvantage Scale	-.019 (.056)	----
Socioeconomic Deprivation Scale	----	.131+ (.071)
Residualized Change Variables		
Churches Per 1,000	-.106+ (.060)	-.060 (.053)
Concentrated Disadvantage Scale	-.037 (.106)	----
Socioeconomic Deprivation Scale	----	.205+ (.112)
Proportion AA Renters	.220 (.251)	.263 (.239)
Proportion AA males age 15-34	-.788 (3.741)	2.799 (3.949)
Population Size (log)	-1.152* (.434)	-.562 (.385)
Proportion Vacant Housing	-1.844 (2.098)	-1.800 (2.051)
Structural Density	-3.373 (1.869)	-5.484* (1.953)
Intercept	.331	.269
R^2	.19	.23

Note: standard error in parentheses
* $p<.05$ two tailed test, +$p<.05$ one tailed test

rates during the 1980's. The 1980 value of socioeconomic deprivation is also a significant predictor of the change in homicide. Urban counties with a high level of socioeconomic deprivation in 1980 experienced significant increases in the homicide victimization rate during the 1980's.

With respect to the residual change measures in the model, change in the number of churches per 1,000 members has no significant impact on the homicide rate. The decennial change in socioeconomic deprivation is associated with increases in the homicide rate. This finding indicates that growth in homicide during the 1980's occurred contemporaneously with increases in socioeconomic deprivation. The residual change in structural density is also a significant predictor of change in homicide. Increases in housing density is associated with declines in homicide victimization during the 1980's.

In Table 32, I present models for rural counties predicting African American homicide victimization with the number of churches per 1,000 members. In Model 1, the coefficient for the 10 year lag in the number of churches per 1,000 members is a significant predictor of the change in homicide in rural counties. This finding indicates that a large number churches per 1,000 members in 1980 is associated with declines in the homicide rate from 1980 to 1990. The level of concentrated disadvantage is also related to changes in the homicide rate. A high level of concentrated disadvantage in 1980 resulted in an increase in the homicide rate from 1980 and 1990.

Residual change measures presented in Model 1 also indicate that the change in the number of churches per 1,000 members has a significant effect on the change in homicide victimization. Growth in the number of churches per 1,000 members during the

Table 32. Standardized OLS Regression Coefficients Predicting Residualized Change in African American Homicide Victimization with Churches Per 1,000 in Rural Counties (N=707), 1980-1990

	Model 1	Model 2
10 Year Lag Variables		
Churches Per 1,000	-.072* (.026)	-.097* (.026)
Concentrated Disadvantage Scale	.240* (.072)	----
Socioeconomic Deprivation Scale	----	.062 (.057)
Residualized Change Variables		
Churches Per 1,000	-.096+ (.051)	-.229* (.044)
Concentrated Disadvantage Scale	.363* (.098)	----
Socioeconomic Deprivation Scale	----	-.151* (.065)
Proportion AA Renters	.186 (.166)	.368* (.163)
Proportion AA males age 15-34	-.983 (.927)	-.817 (.947)
Population Size (log)	-.543 (.546)	-1.457* (.563)
Proportion Vacant Housing	-2.633* (1.310)	-2.484 (1.334)
Structural Density	3.713* (1.558)	5.316* (1.540)
Intercept	.521	.659
R^2	.12	.10

Note: standard error in parentheses
* $p<.05$ two tailed test, + $p<.05$ one tailed test

1980's resulted in a significant reduction in the homicide rate from 1980 to 1990. Additionally, residual change in the level of concentrated disadvantage during the 1980's resulted in increased rates of homicide for African Americans in rural counties. Two of the control measures are also significant in Model 1. Increases in the proportion vacant housing is associated with declines in the homicide rate. Higher levels of structural density are associated with increases in homicide victimization in rural counties.

In Model 2, I assess the effect of the number of churches per 1,000 members net of the effect of socioeconomic deprivation. The coefficient for the 1980 level of the number of churches per 1,000 members is associated with declines in homicide victimization during the 1980's. Thus, the number of churches per 1,000 members in 1980 led to lower levels of homicide victimization in 1990.

Residual change measures in the model indicate a number of significant findings. The growth churches per 1,000 members during the 1980's is significantly related to a decrease in the rate of homicide victimization from 1980 to 1990. Interestingly, increases in the rate of socioeconomic deprivation in rural counties is associated with declines in homicide rate for African Americans. Growth in the proportion African American renters is associated with increases in homicide victimization. Rural counties gaining population during the 1980's experienced declines in homicide victimization during the 1980's. Structural density is also related to changes in homicide victimization. Increases in the proportion of housing units in structures containing five units or more is related to increases in the homicide rate for African Americans during the 1980's.

Residual Change Models for White Homicide Victimization

Tables 33 through 36 test hypotheses 4 and 5 for changes in white homicide victimization in the urban and rural counties in the analysis. As noted earlier, I present separate models that control for concentrated disadvantage and socioeconomic deprivation in each table. In Table 33 Model 1, I estimate an OLS residual change model evaluating the effect of local orientation while controlling for concentrated disadvantage. The results indicate that the level of local orientation in 1980 has no significant effect on the residual change of white homicide victimization from 1980 to 1990. Additionally, neither the 1980 level of concentrated disadvantage nor the residual change measures have significant effects on white homicide in urban counties.

I estimate Model 2 of Table 33 controlling for socioeconomic deprivation. The level of local orientation in 1980 has a significant effect on homicide for Whites. A higher level of local orientation in 1980 is associated with declines in white homicide during the 1980's. The 1980 level of socioeconomic disadvantage has a significant, positive effect on the change in homicide. This finding indicates that the level of socioeconomic deprivation in 1980 for urban counties increased the growth of the homicide victimization rate for whites. None of the residual change variables in the model have a significant effect on homicide victimization for whites.

In Table 34, I report OLS residual change models predicting White homicide victimization in rural counties. In Model 1, I evaluate the effect of local orientation net of the effect of concentrated disadvantage. The results indicate that the level of local orientation in 1980 is negatively associated with white homicide victimization. Counties

Table 33. Standardized OLS Regression Coefficients Predicting Residualized Change in White Homicide Victimization with Local Orientation Scale in Urban Counties (N=119), 1980-1990

	Model 1	Model 2
10 Year Lag Variables		
Local Orientation Scale	-.096 (.069)	-.126+ (.072)
Concentrated Disadvantage Scale	.073 (.046)	----
Socioeconomic Deprivation Scale	----	.079+ (.042)
Residualized Change Variables		
Local Orientation Scale	-.053 (.045)	-.045 (.045)
Concentrated Disadvantage Scale	-.112+ (.058)	----
Socioeconomic Deprivation Scale	----	-.082 (.073)
Proportion White Renters	-.083 (.346)	-.004 (.363)
Proportion White males age 15-34	-4.876 (2.943	-4.998 (3.155)
Population Size (log)	-.146 (.221)	.065 (.206)
Proportion Vacant Housing	-1.148 (1.197)	-.873 (1.210)
Structural Density	-.540 (1.218)	-1.068 (1.231)
Intercept	-.124	-.124
R^2	.13	.12

Note: standard error in parentheses
* p<.05 two tailed test, +p<.05 one tailed test

Table 34. Standardized OLS Regression Coefficients Predicting Residualized Change in White Homicide Victimization with Local Orientation Scale in Rural Counties (N=707), 1980-1990

	Model 1	Model 2
10 Year Lag Variables		
Local Orientation Scale	-.077+ (.038)	-.072+ (.038)
Concentrated Disadvantage Scale	.055 (.034)	----
Socioeconomic Deprivation Scale	----	.037 (.035)
Residualized Change Variables		
Local Orientation Scale	.071 (.071)	-.070 (.071)
Concentrated Disadvantage Scale	.023 (.046)	----
Socioeconomic Deprivation Scale	----	.070 (.051)
Proportion White Renters	-.194 (.119)	-.205 (.119)
Proportion White males age 15-34	.706 (2.471)	.588 (2.527)
Population Size (log)	-.998* (.339)	-.890* (.348)
Proportion Vacant Housing	.135 (.842)	.111 (.843)
Structural Density	.718 (.934)	.550 (.917)
Intercept	.016	.012
R^2	.03	.03

Note: standard error in parentheses
* p<.05 two tailed test, +p<.05 one tailed test

with a higher level of local orientation in 1980 experienced greater declines in homicide. With respect to residual change measures, the change in population size from 1980 to 1990 is significantly related to changes in homicide victimization. Thus, rural counties experiencing population growth during the 1980's also experienced declines in homicide victimization during the 1980's

In Model 2, I assess the effect of local orientation net of the effect of socioeconomic deprivation. The level of local orientation in 1980 is related to declines in the homicide rate for Whites in rural counties. Higher levels of local orientation in 1980 reduced homicide victimization during the 1980's. The only significant residual change measure in Model 2 is population size. Population growth during the 1980's is associated with declines in homicide from 1980 to 1990.

Table 35 presents models predicting the decennial change in white homicide victimization with the number of churches per 1,000 members for urban counties. In model 1, the 10 year lag measure of the number of churches per 1,000 members is significantly related to changes in homicide during the 1980's. The results indicate that a higher number of churches per 1,000 members in 1980 resulted in a greater reduction of homicide victimization from 1980 to 1990. The 1980 level of concentrated disadvantage is associated with gains in homicide victimization for whites in urban counties. Interestingly, growth in concentrated disadvantage during the 1980's resulted in declines in the rate of white homicide victimization from 1980 to 1990.

In Model 2, I evaluate the effect of the number of churches per 1,000 members on homicide net of the effect of socioeconomic disadvantage. The findings indicate that the

number of churches per 1,000 members in 1980 is associated with declines in homicide rates during the 1980's. The 1980 value of socioeconomic deprivation is also a significant predictor of the change in homicide. Urban counties with a high level of socioeconomic deprivation in 1980 experienced significant increases in the homicide victimization rate during the 1980's. With respect to the residual change measures in the model, no change measure is significantly related to changes in homicide for whites.

In Table 36, I present models for rural counties predicting white homicide victimization with the number of churches per 1,000 members. In Model 1, the coefficient for the 10 year lag in the number of churches per 1,000 members is a significant predictor of the change in homicide in rural counties. This finding indicates that a large number of churches 1,000 members in 1980 is associated with declines in the homicide rate from 1980 to 1990. Only one of the residual change measures is significantly related to changes in homicide. Counties gaining population during the 1980's experienced declines in homicide victimization for whites.

In Model 2, I assess the effect of the number of churches per 1,000 members net of the effect of socioeconomic deprivation. The coefficient for the 1980 number of churches per 1,000 members is associated with declines in homicide victimization during the 1980's. The number of churches in 1980 led to lower levels of homicide victimization in 1990. As with Model 1, the only significant residual change variable is population size. Growth in the size of the population in a rural county equates to a significant decline in the white homicide rate during the 1980's.

Table 35. Standardized OLS Regression Coefficients Predicting Residualized Change in White Homicide Victimization with Churches Per 1,000 in Urban Counties (N=119), 1980-1990

	Model 1	Model 2
10 Year Lag Variables		
Churches Per 1,000	-.053* (.026)	-.059* (.026)
Concentrated Disadvantage Scale	.106* (.049)	----
Socioeconomic Deprivation Scale	----	.113* (.046)
Residualized Change Variables		
Churches Per 1,000	-.003 (.031)	.001 (.032)
Concentrated Disadvantage Scale	-.096+ (.057)	----
Socioeconomic Deprivation Scale	----	-.042 (.071)
Proportion White Renters	-.118 (.365)	-.015 (.377)
Proportion White males age 15-34	-3.451 (2.730)	-3.034 (2.875)
Population Size (log)	-.228 (.215)	-.037 (.200)
Proportion Vacant Housing	-1.736 (1.210)	-1.583 (1.221)
Structural Density	-1.232 (1.225)	-1.947 (1.230)
Intercept	.181	.251
R^2	.14	.13

Note: standard error in parentheses
* $p<.05$ two tailed test, +$p<.05$ one tailed test

Table 36. Standardized OLS Regression Coefficients Predicting Residualized Change in White Homicide Victimization with Churches Per 1,000 in Rural Counties (N=707), 1980-1990

	Model 1	Model 2
10 Year Lag Variables		
Churches Per 1,000	-.036* (.016)	-.039* (.016)
Concentrated Disadvantage Scale	.052 (.036)	----
Socioeconomic Deprivation Scale	----	.039 (.038)
Residualized Change Variables		
Churches Per 1,000	.001 (.029)	.004 (.028)
Concentrated Disadvantage Scale	.026 (.048)	----
Socioeconomic Deprivation Scale	----	.083 (.051)
Proportion White Renters	-.195 (.119)	-.207 (.119)
Proportion White males age 15-34	1.484 (2.421)	1.326 (2.475)
Population Size (log)	-1.091* (.340)	-.965* (.347)
Proportion Vacant Housing	.122 (.837)	.076 (.839)
Structural Density	1.024 (.958)	.941 (.945)
Intercept	.247	.261
R^2	.03	.03

Note: standard error in parentheses
* $p<.05$ two tailed test

Summary

The results from this analysis are summarized in Table 37. Generally, the results from this analysis provide strong support for hypothesis 4 and limited support for hypothesis 5. In the next chapter I provide theoretical and policy implications of the analyses presented in Chapters 4 and 5.

Table 37. Summary of Hypothesis Tests

	African American Homicide Victimization	White Homicide Victimization
10 Year Lag Variables–Controlling for Concentrated Disadvantage		
Churches Per 1,000	Significant in Rural and Urban	Significant in Rural and Urban
Local Orientation	Significant in Rural Only	Significant in Rural Only
10 Year Lag Variables–Controlling for Socioeconomic Deprivation		
Churches Per 1,000	Significant in Rural and Urban	Significant in Rural and Urban
Local Orientation	Significant in Rural Only	Significant in Rural and Urban
Residualized Change Variables–Controlling for Concentrated Disadvantage		
Churches Per 1,000	Significant in Rural and Urban	Not Significant in Rural or Urban
Local Orientation	Not Significant in Rural or Urban	Not Significant in Rural or Urban
Residualized Change Variables–Controlling for Socioeconomic Deprivation		
Churches Per 1,000	Significant in Rural Only	Not Significant in Rural or Urban
Local Orientation	Not Significant in Rural or Urban	Not Significant in Rural or Urban

CHAPTER 6: DISCUSSION AND CONCLUSIONS

Disorganization, Civic Community, and Crime in Rural and Urban Counties

As noted in the introductory chapter, studies of the underlying causes of aggregate rates of violence in U.S. urban areas have relied nearly exclusively on social disorganization theory. From the classical studies of Chicago neighborhoods such as Shaw and McKay (1942) to the works of contemporary criminologists, social disorganization theory provides a central explanatory framework for crime. Yet, one of the key shortcomings of this approach is that it cannot adequately explain urban-rural differences in African American homicide victimization. While African Americans in rural areas experience similar or even more extreme levels of disadvantage than their urban counterparts, the risk of homicide for rural African Americans is significantly lower.

Within the theoretical framework I develop here, I argue that the source of this paradox lies in the manner in which social disorganization theory conceptualizes social control. The key tenet of social disorganization explanations of crime is that neighborhoods exhibiting socioeconomic deprivation lack the resources to exert social control on neighborhood residents. Even within the most recent formulations of social disorganization theory that build upon the work of Wilson (1987) and Massey and Denton (1993) to explain crime as resulting from the geographic concentration of disadvantage into a limited number of neighborhoods, the underlying assumption is that the aggregate socioeconomic status of a neighborhood determines the level of social control.

While I do not dispute the validity of this assumption, the theoretical framework developed in this study provides a conceptually different, although complimentary, explanation of violence that can begin to unravel the rural-urban discrepancy in homicide rates for African Americans. At the same time, my approach contributes to the vast literature regarding crime in the urban centers of the U.S. The civic community perspective that I develop in this work points to two institutions present in nearly all communities throughout the U.S., namely local economic and religious institutions. The central thesis motivating this perspective is that, in civic communities, economic institutions are characterized by small businesses and religious institutions that are likely to be small in size. The underlying assumption of this thesis is that smaller scale social and economic institutions enhance community cohesion, thus providing a unique form of social control. I describe how these institutions provide social control below.

First, small businesses are more likely to be operated by someone embedded in the community. When the establishment is locally oriented, the economic well-being of the business is directly tied to community conditions since capital is less mobile for the person involved. Thus, it is in the best interest of locals to be active in "community problem solving" or, in other words, improving and maintaining the community well-being to protect profitability and viability of the business. Community problem solving provides a direct benefit to community members since maintaining a safe business environment is directly tied to profits. In most cases, a safe business environment equates to a safe environment for residents.

Religious institutions also provide a variety of benefits to community residents. On a practical level, churches provide an arena for interaction between community members, thus possibly increasing community cohesion and residential stability. Churches offer educational and social services to disadvantaged persons in the community, as well as centers of activity for youth members such as athletic and social activities. Thus, churches informally contribute to community social control by providing valuable services that may not be present in the absence of churches. However, the benefit of churches also transcends practical applications. Churches contribute to the moral order of a community. Stark (1996) argues that churches provide a "religious context" for community residents that regulates deviant behavior. I argue that when a community is characterized by small churches church members may develop stronger networks of informal social control.

Clearly, the civic community explanation of crime is different from a neighborhood disorganization perspective since the social control mechanisms transcend a single neighborhood. At the same time, civic community and disorganization perspectives are not incompatible since neighborhoods are a component of the broader community and benefit from community-wide social control. Ideally, analyses of crime should incorporate both theories to provide a more robust explanation of crime and deviance. The combination of these two theories provides a foundation for understanding the rural-urban discrepancy in rates of homicide victimization.

Findings from This Study

In the analyses presented in this report I have evaluated the validity of both theories and examined the manner in which these explanations of crime operate independently and in concert with one another. The key research question I have addressed is: how do civic institutions serve as a form of community social control? In Table 38 I summarize the findings for each hypothesis derived from my research question.

For the first hypothesis, the results from the analyses of African American homicide rates largely conform to expectations. In the rural and urban models controlling for socioeconomic deprivation, both forms of civic community were associated with lower rates of homicide. My analysis of white homicide victimization was less conclusive. Only one type of civic community seemed important for levels of white homicide victimization, church size. These findings suggest that community cohesiveness fostered by small churches enhances informal social control mechanisms. However, this finding only applied to models that controlled for concentrated disadvantage. Thus, the strongest support for this hypothesis was generated from models predicting African American homicide victimization.

Tests of the second hypothesis yielded two clear conclusions. First, small businesses and church size mediate the effects of concentrated disadvantage and socioeconomic deprivation on African American homicide in rural counties. Thus, the effect of socioeconomic disadvantage on homicide is weaker in communities characterized by a small businesses and small churches. Second, church size acts as a

Table 38. Summary of Hypothesis Tests

Hypothesis 1:The presence of civic community indicators directly decreases levels of homicide in both urban and rural counties.	For African Americans, both measures of civic community reduce crime in rural and urban counties when controlling for socioeconomic deprivation. Only the number of churches per 1,000 members is significant in the rural model controlling for concentrated disadvantage. For whites, local orientation had no significant effect. The number of churches per 1,000 members was significant in rural and urban models that controlled for concentrated disadvantage.
Hypothesis 2: The presence of civic community indicators mediates the effect of concentrated disadvantage and socioeconomic deprivation on crime in urban and rural counties.	For African Americans, churches mediated the effect of concentrated disadvantage and socioeconomic deprivation in rural models only. Local orientation mediated the effect of socioeconomic deprivation in rural counties. For whites, churches mediated the effect of concentrated disadvantage and socioeconomic deprivation in urban models only. Local orientation mediated the effects of concentrated disadvantage in urban counties only and mediated the effects of socioeconomic deprivation in rural counties only.
Hypothesis 3: The direct and mediating effects of civic community indicators are stronger in rural counties.	For African Americans, direct effects of civic community measures were stronger in rural counties in models controlling for socioeconomic deprivation. The mediating effect of churches was stronger in rural counties. For whites, the direct effect of churches was stronger in urban counties when controlling for either measures of socioeconomic disadvantage. There were no differences in the indirect effects.
Hypothesis 4: Growth in civic community indicators from 1980 to 1990 is associated with declines in homicide victimization same time period in rural and urban counties.	For African Americans, only growth in the number of churches per 1,000 members had a significant effect. Change in the number of churches per 1,000 members was significant in rural counties when controlling for change in either measure of socioeconomic disadvantage and significant in urban counties when controlling for change in concentrated disadvantage. For whites, no civic community change measure was significant.
Hypothesis 5: The level of civic community indicators in 1980 are associated with declines in homicide victimization from 1980 to 1990 in rural and urban counties.	For African Americans, churches per 1,000 members had significant lagged effects in rural and urban counties. The lagged effect of local orientation was only significant in rural counties. For whites, the number of churches per 1,000 members had significant lagged effects in rural and urban counties. The lagged effect of local orientation was only significant in rural counties when controlling for concentrated disadvantage. The lagged effect of local orientation was significant for both rural and urban counties when controlling for socioeconomic deprivation.

between socioeconomic disadvantage and white homicide in urban counties. Thus, the mediating effects of civic community tend to occur in different spatial locales for African Americans and whites. These findings provide limited support for hypothesis 2.

In hypothesis 3, I test for significant differences in the direct and mediating effects of civic institutions between rural and urban counties. For African Americans, the hypothesis is generally supported by the finding that small businesses and church size have greater impacts on homicide in rural counties when controlling for socioeconomic deprivation. Additionally, church size had a stronger mediating effect in rural counties when controlling for concentrated disadvantage. Models for white homicide provided evidence contradictory to hypothesis 3. The direct effect of church size on white homicide was stronger in urban counties. The mediating effects of small businesses and church size were the same in rural and urban counties. As with the findings for hypothesis 2, the general trend is that small businesses and church size play a major role in rural counties for African Americans, while civic community in urban counties is more important for whites.

For hypothesis 4, results from models predicting African American homicide provide limited support. Analyses of African American homicide indicate that the change in church size during the 1980's is associated with declines in homicide from 1980 to 1990. However, the decennial change in small business activity has no significant relation to homicide. Models predicting white homicide provided no support for this hypothesis.

In contrast to hypothesis 4, there is a great deal of support for hypothesis 5. Analyses of both white and African American homicide rates in rural and urban counties indicate that communities with smaller churches in 1980 experienced significant declines in the homicide rate from 1980 to 1990. The amount of small business activity in 1980 is associated with declines in homicide during the 1980's for African Americans in rural counties. For whites, the amount of small business activity in 1980 is associated with declining rates of homicide during the 1980's in rural and urban counties.

Overall, the size of churches had the strongest relationship with homicide. Communities with small churches tend to have lower rates of homicide for African Americans and whites. The presence of small businesses also was related to lower levels of homicide, but these findings were limited to models of African American homicide in rural counties.

Limitations of This Study

While this study has provided support for the value of measuring broader community characteristics in analyses of crime, there are a number of notable limitations to the findings presented here. First, as with all studies of social disorganization that employ cities, counties, or even states as a unit of analysis, the theoretical framework often does not exactly fit the analysis. Since social disorganization theory conceptualizes social control as a neighborhood phenomenon, studies not employing neighborhoods as the unit of analysis assume that social control operates at a level transcending the neighborhood. This assumption is especially problematic since socioeconomic disadvantage tends to be concentrated in specific areas of a city or county and not evenly

distributed. One reason why most studies do not employ neighborhood level analyses of crime is that detailed crime data on neighborhoods are rarely available. Future studies of crime employing a social disorganization perspective should seek out new data sources beyond published Uniform Crime Report statistics.

A second data related limitation in this study is that information on enterprise organization is not available for sub-state geographies in the public domain. Because of this, I assume that smaller businesses are more likely to be locally oriented. The problem with this assumption is that it is possible for businesses with few employees to be a part of a larger corporation or franchise chain that reaches beyond the local community. A better approach to measuring the concept of locality involves the use of confidential economic census information on business ownership. While this information is available through the Bureau of the Census and the Internal Revenue Service at a secure location in Washington D.C., time and resource constraints limited my ability to employ these measures in my study. Researchers seeking to examine the role of locally oriented economies in predicting community well-being should consider alternative non-public data sources in future research.

A third limitation of this study is that information on churches provided by the Census of Churches (Glenmary Research Center 1990) does not necessarily cover all denominations and is limited by self-report biases. Since there are few other data sources that report sub-state statistics on churches and church membership, this is the best data source available to researchers. For researchers interested in the presence of churches, rather than specific denominational presence, future research should incorporate

information from the County Business Patterns and the Economic Censuses that report the presence of not-for-profit services such as civic associations and religious organizations. Comparing these sources to the Census of Churches may yield more reliable measures of the presence of churches in communities.

Finally, researchers seeking to further study rural crime should be cautious in the type of model chosen to analyze rural crime data. One limitation of this study is that the distribution of African American and white homicide victimization in rural counties is best fit by a negative binomial regression model (Osgood and Chambers 2000). Since the purpose of this study was to examine the effects of civic community indicators in both rural and urban counties, OLS regression was employed to allow comparability between these two areas. A negative binomial model is not appropriate for analyses of urban counties since the distribution of homicide is less skewed than the distribution in rural counties. Future research examining only rural areas, should consider negative binomial regression as an alternative to OLS modeling techniques.

Relevance of Findings for Theory and Policy

The findings presented in this report contain a number of implications for both theories and policies of crime. The most important implication of this study for criminological theory is that measures of socioeconomic disadvantage alone do not provide a comprehensive explanation of homicide. The results presented here indicate that broader community factors have both direct consequences on the level of homicide and mediate, in part, the relationship between socioeconomic disadvantage and homicide. The significance of the effects of civic community measures in my models, suggests that

a comprehensive theory of crime would address both issues of neighborhood disadvantage and levels of civicness present in communities. Ideally, future studies should consider multi-level modeling techniques to better represent the theoretical concerns of both civic community and social disorganization. In a multi-level modeling scheme, such as HLM, researchers could properly contextualize the neighborhood within the broader community. As noted earlier, studies of this nature would require neighborhood level crime data that are not currently available. Regardless of data issues, researchers should bear in mind that broader community concerns, such as the civic community indicators described in this report, are a valuable tool to understanding the effects of socioeconomic disadvantage on homicide.

A second important theoretical contribution of this work is the finding that the mediating effects of civic community appear to be stronger in rural counties for African Americans. This finding helps to resolve the inconsistency between levels of disadvantage and homicide victimization for African Americans. For example, the presence of small churches in rural counties mediates13.9% of the total effect of concentrated disadvantage on African American homicide victimization and accounts for the total effect of socioeconomic deprivation in rural counties. In urban counties, the mediating effects of churches are negligible. Additionally, economic institutions play a key role in providing social control in rural communities. Compared to urban counties, small businesses is associated with stronger direct and mediating effects on homicide for African Americans in rural counties than in urban counties.

These findings for African Americans point to a fundamental difference between the structure of rural and urban communities that theorists of rural crime should consider in future studies. In rural communities the network ties of residents tend to be organized around family and neighbors within the spatial bounds of the community (Beggs, Haines, and Hurlbert 1996). In other words, residents of communities in rural areas tend to be more closely knit and tightly linked to one another. This property of rural communities is also echoed in the classical conceptualization of Gesselschaft and Gemeinschaft of Ferdinand Toonies (1963). Thus, it s not surprising that civic institutions have a greater impact in rural communities since these communities are more cohesive and residents are more closely tied to institutions. Future research of crime in rural areas should be especially sensitive to the institutional structure of the community.

With respect to public policies aimed at reducing crime across the U.S., the civic community perspective provides a viable alternative to current approaches. The general policy approach to remedying crime problems in the U.S. currently focuses on two aspects of social control, namely increasing sizes of law enforcement agencies and increasing the severity of sentencing for offenders. While I do not argue that these approaches be removed from public policy, the findings from this study suggest that some aspects of the civic community perspective merit consideration.

First, for rural communities, policies designed to promote and increase self-employment opportunities would yield a direct benefit to communities. Rural counties with a higher level of small locally oriented businesses experienced greater declines in the level of homicide for both African Americans and whites in this study. This finding

suggests that economic development policies aimed at increasing self-employment in rural areas may also reduce levels of crime by enhancing social control networks in communities and creating more community cohesion.

Second, recent policy attempts to integrate religious organizations into the social service infrastructure may provide latent benefits to social control structures within communities. Findings from this study indicate that the presence of religious institutions is related to levels of homicide in both cross-sectional and longitudinal models. In rural and urban counties, both African Americans and whites exhibit lower rates of homicide victimization when the community is characterized by smaller churches. These findings suggest that the services provided by churches may increase levels of social control and cohesion in communities. Policy designed to integrate religious institutions into social services may in fact help to propagate this effect. However, this type of policy is constitutionally suspect due to the separation of church and state. Future research and efforts are required to ensure that the maximum benefit can be obtained from these policies without infringing on the constitutional rights of individuals in the U.S.

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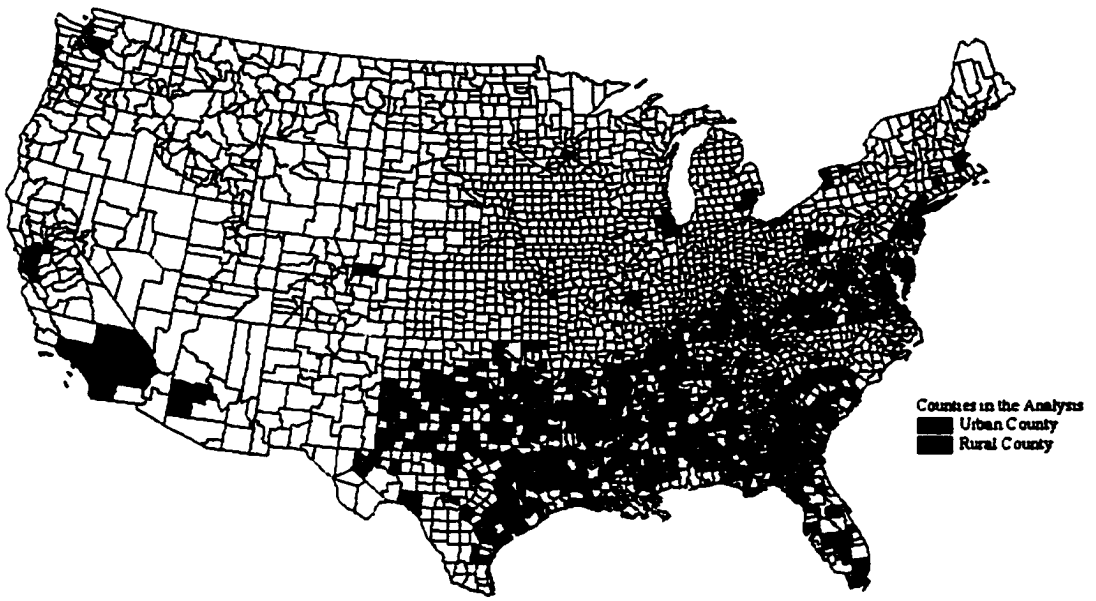
APPENDIX A: COUNTIES INCLUDED IN THE ANALYSIS



APPENDIX B: PEARSON CORRELATION COEFFICIENTS

Whites in Urban Counties, 1990 (*p<.05 two tailed test)

	1	2	3	4	5	6	7	8	9	10
1. White Homicide Victimization	---									
2. Churches Per 1,000	-.326*	---								
3. Local Orientation	-.104	.293*	---							
4. Concentrated Disadvantage	.225*	.175	-.045	---						
5. Socioeconomic Deprivation	.536*	.084	-.009	.830*	---					
6. White Renters	.317*	-.026	-.131	-.042	.061	---				
7. Males Age 15-24	-.065	-.101	-.145	.186*	.085	.083	---			
8. Log of Population Size	.326*	-.089	.041	.081	.135	.307*	-.037	---		
9. Vacant Housing	.378*	-.286*	-.000	.180	.349*	-.037	-.146	.039	---	
10. Structural Density	.491*	-.281*	-.062	-.120	.130	.616*	-.128	.281*	.229*	---

Whites in Rural Counties, 1990 (*p<.05 two tailed test)

	1	2	3	4	5	6	7	8	9	10
1. White Homicide Victimization	---									
2.Churches Per 1,000	-.0338	---								
3. Local Orientation	-.0377	.257*	---							
4. Concentrated Disadvantage	.083*	.293*	.116*	---						
5. Socioeconomic Deprivation	.108*	.321*	.056	.869*	---					
6. White Renters	-.031	-.089	.009	.124*	.085*	---				
7. Males Age 15-24	-.020	-.044	-.284*	.228*	.216*	.161*	---			
8. Log of Population Size	.097	-.282*	-.478*	.263*	.120*	.124*	.298*	---		
9. Vacant Housing	-.027	.149*	.410*	-.007	-.056	.059	-.309*	-.294*	---	
10. Structural Density	-.071	.044	-.269*	.020	.013	.027	.212*	.092*	.215*	---

African Americans in Urban Counties, 1990 (*p<.05 two tailed test)

	1	2	3	4	5	6	7	8	9	10
1. AA Homicide Victimization	----									
2.Churches Per 1,000	-.308*	----								
3. Local Orientation	-.202*	.293*	----							
4. Concentrated Disadvantage	.566*	-.361*	-.339*	----						
5. Socioeconomic Deprivation	.604*	-.124	-.143	.706	----					
6. AA Renters	.253*	.050	-.130	.023	.048	----				
7. Males Age 15-24	-.122	.023	.135	-.082	-.141	.0262	----			
8. Log of Population Size	.324	-.089	.041	.163	.043	.268*	.044	----		
9. Vacant Housing	.256*	-.286*	-.000	.233*	.247*	-.102	-.193*	.039	----	
10. Structural Density	.333*	-.281*	-.062	.060	.046	.391*	-.233*	.281*	.229*	----

African Americans in Rural Counties, 1990 (*p<.05 two tailed test)

	1	2	3	4	5	6	7	8	9	10
1. AA Homicide Victimization	----									
2.Churches Per 1,000	-.292*	----								
3. Local Orientation	-.251*	.257*	----							
4. Concentrated Disadvantage	.390*	-.471*	-.372*	----						
5. Socioeconomic Deprivation	.021	-.111*	.046	.421*	----					
6. AA Renters	.165*	-.198*	-.155*	.267*	.061	----				
7. Males Age 15-24	-.068	-.028	-.087*	-.078*	.093*	-.029	----			
8. Log of Population Size	.180	-.282	-.478*	.159*	-.093*	.243*	.104*	----		
9. Vacant Housing	-.161*	.149*	.410*	-.110*	.092*	-.075*	-.072	-.294*	----	
10. Structural Density	.006	.044	-.269*	.096*	-.117*	.044	.085*	.092*	.215*	----

VITA

Troy Christopher Blanchard received the degree of Bachelor of Arts in sociology from Louisiana State University and the degree of Master of Arts in sociology from Louisiana State University. He will receive the degree of Doctor of Philosophy during the August 2001 commencement. In July of 2001, he begins his appointment as Assistant Professor of Sociology in the Department of Sociology, Anthropology, and Social Work at Mississippi State University.

DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Troy Christopher Blanchard

Major Field: Sociology

Title of Dissertation: Bringing the Community Back In: The Mediating Role of Civic Community in the Socioeconomic Disadvantage and Homicide Relationship in Rural and Urban Counties, 1980-1990

Approved:

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

Date of Examination:

June 18, 2001