STRUCTURAL FACTORS AND BLACK INTERRACIAL HOMICIDE: A NEW EXAMINATION OF THE CAUSAL PROCESS

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This study evaluates the assumption that deprivation among African Americans and racial inequality lead to black interracial homicide due to racial conflict and antagonism. Using refined race-adjusted Supplemental Homicide Report data, Uniform Crime Report data and census data, we test an alternative hypothesis that draws on the macrostructural opportunity theory to assess and more accurately specify the relationship between structural characteristics and black interracial homicide. We find that first, the relationship between economic factors and black interracial homicide can be explained in large part by high rates of financially motivated crime such as robbery, and second, that economic factors are associated with financially motivated but not expressive black interracial killings. Analyses of black intraracial killings are performed for comparison purposes. Collectively, the findings suggest that conflict-based explanations rooted in racial antagonism and frustration aggression may be premature.

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During the past two decades, a small but convincing body of evidence has accumulated that demonstrates the importance of disaggregating homicide rates by race. Researchers have found that the correlates of black on black homicide differ from the correlates of white on white homicide (LaFree et al., 1992; Ousey, 1999; Peterson and Krivo, 1993; Shihadeh and Steffensmeier, 1994), but less attention has been given to interracial killings. In the literature that does exist, there is little consensus concerning an explanation for variation in rates of interracial violence. Although some studies focus on the structural characteristics that promote interracial contact, the majority examine how economic deprivation and racial competition influence violence.

In the latter studies, when focusing on interracial killings with black offenders, researchers have argued that deprivation among African Americans and competition for jobs and political power can fuel racial antagonism, which in turn, engenders interracial violence. As a result, controlling for other factors, cities with greater levels of black disadvantage and racial inequality will have higher rates of black interracial homicide. While empirical support for this argument has been documented (Balkwell, 1990; Jacobs and Wood, 1999; Parker and McCall, 1999), these studies do not provide a decisive test because they do not directly measure the individual-level or social psychological processes hypothesized to mediate the relationship between deprivation/inequality and interracial homicide. There is thus a risk of incorrectly identifying the causal process that drives variation in black interracial homicide. While structural characteristics such as deprivation and inequality may, in fact, increase blacks’ killings of whites, the causal process may not be related to racial antagonism or hostility.

The present research evaluates the assumption that deprivation and inequality lead to black interracial killing because of racial conflict and antagonism, and examines an alternative hypothesis that draws on macrostructural opportunity theory. First, the study determines whether the relationship between city-level characteristics and black interracial homicide can be explained, in part, by high rates of financially motivated crime. We also assess whether black interracial killings are likely to result from the interaction between high levels of interracial contact and financially motivated crime.

Second, we incorporate an important aspect of the association between deprivation/racial inequality and interracial homicide—homicide motive. Despite a rigorous search, we were unable to locate any study that examines black interracial homicide rates disaggregated by motive, yet the motive provides some insight into the underlying rationale for the killing. In this study we focus on the prevalence, nature and motivation of different subtypes of black interracial killing and determine the structural
predictors of each subtype. Analyses of black intraracial killings are performed for comparison purposes.

This approach addresses three questions. First is which structural characteristics explain variation in levels of black interracial homicide across U.S. cities. That is, how are deprivation, racial inequality, racial heterogeneity and other factors related to black interracial killings? Second is whether rates of other types of criminal behavior—for example, robbery— influence levels of black interracial homicide. More specifically, can robbery explain, in part, the relationship between macrostructural characteristics and black interracial homicide? Third is whether the influence of these structural characteristics on black interracial killing vary depending on the motive of the homicide. That is, are the effects of deprivation, racial inequality and other factors larger or smaller if the homicide occurs during an economically motivated crime versus during an argument or fight?

Although few studies examine interracial killings—likely due to the fact that they are relatively infrequent events—it is important to do so. Despite their rarity, interracial killings represent “theoretically intriguing events” that “differ so much from homicides [in general] that they should be the subject of separate analyses” (Jacobs and Wood, 1999:184,159). These events, and their causes, are also worthy of attention as they both reflect and influence the relationships between racial groups in the United States. Interracial violence has caused, and has been viewed as a manifestation of, prejudice, anger and frustration. It has played a prominent role in political and public discourse and has served as a spark for civil unrest (Tonry, 1995). As such, its relative infrequency is overshadowed by the potency of its social implications. The aim of this study is to better understand what factors promote black interracial killing and why.

THEORETICAL PERSPECTIVES

Explanations for interracial homicide have emerged from two different perspectives. One approach, informed by Blau’s (1977) macrostructural opportunity theory and elements of the general criminal opportunity perspective, focuses on opportunities for intergroup contact as a central factor influencing interracial violence. This perspective claims that interracial homicide, like interracial marriage, is a byproduct of intergroup contact. The likelihood of killing someone, or marrying someone, of another race is influenced by the amount of interracial contact in an area. According to Blau, opportunities for such contact are shaped by the fundamental properties of urban social structure. One such property is racial inequality. Inequality refers to the differences among persons with respect to status characteristics such as education, income, wealth and
prestige (Messner and South, 1992). Inequality has a distinctive effect on associations when it is correlated with group membership. For example, when race is strongly correlated with socioeconomic status, opportunities for contact between members of different groups are likely to be infrequent. Macrostructural opportunity theory therefore proposes that racial inequality will reduce opportunities for contact between members of different races, which, in turn, will minimize the probability of interracial associations. As a result, racial inequality will be inversely related to interracial homicide.

Likewise, other factors that affect opportunities for interracial contact—such as racial heterogeneity and labor market participation—are also hypothesized to be associated with interracial killings. With respect to racial heterogeneity, Blau argues that the proportion of group members of different races is critical because these distributions determine the likelihood of social interaction between groups. Racial heterogeneity bears directly on the probability of intergroup relations because it reflects the likelihood of fortuitous encounters between persons of different groups. With respect to labor market participation, researchers have suggested that higher rates of labor market involvement can lead to more opportunities for interracial interaction (Messner and South, 1992). Parker and McCall (1999:464) suggest that the prevalence of employment opportunities specifically for low-skilled individuals with little education will influence levels of interracial contact, and in turn, affect interracial violence. Thus, according to the macrostructural opportunity perspective, interracial homicide is expected to be positively related both to the degree of racial heterogeneity in the general population as well as to the availability of low-skilled employment opportunities in the local labor market.

Another explanation for interracial homicide focuses less on opportunities for intergroup contact and more on the motivation behind intergroup violence. Of importance here is the idea that interracial killings, and particularly black interracial killings, represent some of the most intense and violent conflicts between members of groups that have not been treated equally (Jacobs and Wood, 1999). Researchers, therefore, focus on the extent to which economic structural conditions such as deprivation and inequality affect black interracial homicide. Social psychological processes such as frustration-aggression, racial antagonism, black rage and stress-anger-displacement are referenced to explain the observed relationships between economic characteristics and black interracial homicide (Balkwell, 1990; Jacobs and Wood, 1999; Olzak et al., 1996).

Although homicide has long been thought to be a product, at least in part, of economic conditions, attempts to refine the notion that poverty causes violence has led researchers to try to more precisely identify which aspect of economic conditions engenders violence. One hypothesis
identifies the critical feature as severe material deprivation, or absolute poverty. As Williams and Flewelling (1988:423) explain:

It is reasonable to assume that when people live under conditions of extreme scarcity, the struggle for survival is intensified. Such conditions are often accompanied by a host of agitating psychological manifestations, ranging from a deep sense of powerlessness and brutalization to anger, anxiety and alienation. Such manifestations can provoke physical aggression in conflict situations.

A second hypothesis posits the crucial factor to be comparative deprivation, or relative poverty. Here it is argued that economic inequality entails conflict of interest over the distribution of resources which spells a potential for violence (Blau and Blau, 1982). Most recently, in attempting to explain black interracial violence, researchers have considered the extent to which economic distinctions correspond to racial distinctions; if the relatively advantaged members of a community are largely of one racial group, while the relatively disadvantaged are disproportionately of another, the effects of economic conditions may be especially pronounced (Balkwell, 1990).

Blau and Blau (1982) posit that racial inequality creates strong pressures to commit violence and that this process derives from the inherent contradiction between ascriptive inequality and democratic values. Key to this argument is the fundamental principle in democratic societies that rewards should be distributed in accordance with merit and effort. Thus, persons who receive meager rewards because of their race are likely to develop feelings of resentment, frustration and hostility, which may be expressed through aggression. Balkwell (1990:56) claims:

Where substantial economic differences among ethnic groups exist, members of disadvantaged groups are likely to feel antagonism. To a greater or lesser degree, such antagonism is a result of actual exploitation. But often the existence of exploitation is simply inferred. Clear economic differences between ‘them’ and ‘us’ encourage the inference that ‘they’ are somehow manipulating the conditions of life in the community to promote those unequal outcomes. The belief that this is true breeds resentment.

In light of the multiple disadvantages faced by African Americans (Krivo and Peterson, 1996; Wilson, 1987) and because blacks are more likely to experience discrimination in economic spheres (Parker and McCall, 1999:450), this perspective predicts that deprivation among blacks and racial inequality will be positively associated with black interracial homicide.
Research findings on the structural correlates of interracial homicide have been inconsistent. Messner and South (1992) show reasonably strong support for macrostructural opportunity theory: cities with extreme socioeconomic differentials between blacks and nonblacks have relatively low levels of interracial homicide, controlling for other factors. Messner and South argue that this is so because the consolidation of race with socioeconomic status inhibits the formation of interracial associations. Likewise, they find that racial heterogeneity exerts a powerful, positive effect on interracial killings. On the other hand, Parker and McCall (1999) and Jacobs and Wood (1999) find a positive relationship between racial inequality and interracial homicide—particularly black interracial homicide. They conclude that economic inequalities rooted in ascribed positions create alienation, despair and conflict, all of which are associated with higher levels of intergroup violence, and most consistently, with black interracial homicide. Jacobs and Wood also find that cities with a black mayor have fewer black killings of whites, suggesting that black interracial killing is less likely in cities where black political influence is stronger.

One concern with the literature is that the relationship between economic factors and interracial homicide in conflict-based explanations often infers specific social psychological processes, the majority of which are not tested. Given the difficulty with measuring such processes, particularly in national studies, this is understandable. Still, the implied micro-macro link has not been adequately analyzed, which raises questions about its validity. Although the present study also does not measure the social psychological assumptions that underpin conflict-based explanations of violence, it contributes to the debate by assessing an alternative explanation for the variation in rates of interracial homicide. This explanation is derived from macrostructural opportunity theory. It focuses on the likelihood of social interaction between blacks and whites, as well as motivations to engage in violence, as a way to understand black interracial homicide. We test the argument that high rates of black interracial killing may result from high levels of racial heterogeneity and high rates of financially motivated crime such as robbery, which intentionally or unintentionally can lead to homicide. These factors may also interact to produce even greater numbers of interracial homicides. Put simply, some cities may have more black interracial killings because they have higher rates of robbery and because blacks and whites interact more frequently in public spaces. Robbery, particularly when a gun is present, creates a context in which an encounter between two people (independent of race) is more likely to turn lethal. Thus, the combination of increased interracial interaction with high robbery rates creates a greater likelihood, independent of conflict or antagonism, of black interracial homicide.
If it is the case that robbery predicts black interracial homicide, and in fact explains away the effect of macro-economic characteristics on interracial killing, we suggest that attributing high rates to social psychological processes stemming from antagonistic race relations is premature. While this explanation cannot be ruled out (or confirmed) without empirically measuring the processes, a more suitable explanation may be related to the combination of financially motivated crime and the availability of attractive targets of a different race, as suggested above. We test this assumption in two ways. First, we determine whether black robbery rates attenuate the effect of black deprivation, racial inequality and other conflict-based measures on black interracial killing. Second, we assess whether black robbery rates interact with opportunities for interracial contact to increase interracial violence.

This study also contributes to the literature by examining a thus far unexamined aspect of the deprivation/racial inequality-interracial homicide relationship: motive of the homicide. Findings from a number of studies underscore the importance of disaggregating by motive when determining the structural characteristics of homicide (Kovandzic et al., 1998; Kubrin, 2003, Kubrin and Wadsworth, 2003; Macmillan and Gartner, 1999; Miles-Doan, 1998; Parker and McCall, 1999; Peterson and Krivo, 1993; Williams and Flewelling, 1988). The motive of the homicide is critical because it is the best indicator of the underlying social psychological processes that fuel lethal violence. We argue that altercation-based or expressive interracial homicides, more so than robbery or instrumental interracial homicides, better reflect the causal mechanisms (for example, racial antagonism or hostility) proposed in previous research. If these causal processes are accurate, the relationship between economic conditions and black interracial homicide will be stronger for expressive altercation-based killings than for instrumental homicides motivated by economic gain. We test this assumption by examining the influence of structural characteristics on black interracial killings disaggregated by motive.

DATA AND METHODS

DEPENDENT VARIABLES

We use race-adjusted Supplemental Homicide Report (SHR) data from 1988 through 1992 to generate measures of subtype-specific black inter- and intraracial homicide for U.S. cities with populations of at least 100,000 in which African Americans make up 2 percent or more of the population. Our interest in computing race-specific measures imposes this selection criterion to ensure reliable racially disaggregated homicide estimates.
(Krivo and Peterson, 2000; Messner and South, 1992; Parker and McCall, 1999). The SHR data are compiled by the Federal Bureau of Investigation as part of the Uniform Crime Reporting Program (UCR) and provide incident-level information on the location, age, sex and race of the victims and offenders, the victim-offender relationship, weapons used and the circumstances of the homicide (Fox, 2001). Race-adjusted data have been used in prior research to address important missing data problems discussed by Williams and Flewelling (1987) (Kovandzic et al., 1998; Krivo and Peterson, 2000; Parker and McCall, 1999). The race-adjustment process uses the characteristics of homicides for which all information is available to adjust the distribution of cases in which certain pieces of information are missing and for those cases that were not reported by law enforcement agencies. Given our interest in explaining black interracial killings (further disaggregated by motive), we used the adjustment process to create homicide counts disaggregated both by victim and offender race, as well as by the circumstance in which the homicide took place.\footnote{Robert Flewelling assisted us in developing a set of algorithms used to generate race adjusted homicide counts disaggregated by the race of the victim and the circumstance of the homicide. Because these adjustments use two pieces of known information (circumstance and race of victim) instead of one (circumstance), which has not been the case in previous research, our data reflect a fine-tuning of the race-adjustment process. The algorithms were calculated based on the summation of five years of SHR data thus limiting the potential effects of a single year increase, decrease, or divergent distribution. More detail concerning the computations used to create the race-adjusted data is available from the authors upon request.}

Our race-adjusted homicide counts include murders and nonnegligent killings with a single victim and either a single offender or multiple offenders. Fewer than 15 percent of the cases used to generate aggregate homicide counts are incidents with multiple offenders (this includes incidents known to have multiple offenders and an equivalent portion of those for which the number of offenders is unknown). In only 5 percent of multiple-offender cases involving a black offender were any of the other offenders not black. For this reason, to avoid biasing our results by dropping multiple-offender cases, we consider a black interracial homicide to be any homicide in which half or more of the listed offenders were black and the victim was white. Likewise, any homicide in which half or more of the listed offenders were black and the victim was black is considered a black intraracial homicide.\footnote{Many previous studies that use race-adjusted homicide data have limited their focus to homicides involving a single victim and single offender, excluding cases with multiple victims and/or offenders. This is due, in part, to the fact that the original race-adjusted data created by Williams and Flewelling (1987) calculated rates based on the relationship between the victim and offender, which becomes problematic when there are multiple victims and offenders, and thus, multiple victim and...}
Consistent with past research, our unit of analysis is the city. Parker (1989) suggests that the city is the most appropriate level of aggregation for two reasons. First, given the geopolitical process by which SMSAs (a larger level of aggregation) are designated, these units can be very heterogeneous. Cities tend to be more homogenous. Second, homicide is, for the most part, a city phenomenon. Parker's (1989) analysis shows that roughly 80 percent of the homicides took place within city boundaries. In 1990 there were 160 cities with at least 100,000 residents in which the African American population comprised 2 percent or more of the population. SHR data were available for 154 of these cities, which are included in the analyses.

Given the relative rarity of interracial killings, we aggregated data from 1988 to 1992 in order to increase the number of race-specific killings with different motives, a common practice in the literature (Jacobs and Wood, 1999; Kubrin, 2003; Kubrin and Wadsworth, 2003; Messner and South, 1992; Moreno and Sampson, 1997; Parker and Pruitt, 2000). This was necessary, as creating measures from fewer years would result in many cities having few or no recorded black interracial homicides, thus skewing the distributions toward zero.3

We compute six city-level measures of inter- and intraracial homicide with black offenders. These include two overall measures that capture the frequency of black-on-white and black-on-black homicide as well as four circumstance-specific measures that represent black-on-white and black-on-black financially motivated and expressive homicides. Financially motivated homicides include killings that took place during robberies, burglaries, larcenies, motor-vehicle thefts and narcotics transactions.

3. One potential problem with using homicide data that span a 5-year period is that the results of the analyses could be affected if one or more of the motive subtypes became more or less prevalent over time. Drastic overtime changes in the proportion of homicides with different motives can lead to misleading results for the structural covariates. We examined the subtypes for each year between 1988 and 1992 and found that the percentage of black offender interracial homicides that were financially motivated and expressive ranged from 39.2 percent to 48.4 percent and 27.5 percent to 35.6 percent, respectively. The black intraracial homicides that were financially motivated and expressive ranged from 15 percent to 19.3 percent and 52.2 percent to 59.7 percent, respectively. This provides evidence that the mixture of homicide types remained relatively stable over the 5-year period.
Expressive homicides include killings that occurred during arguments or during alcohol- or drug-related fights. Gang killings and murders that resulted from lovers triangles are also classified as expressive.\(^4\)

Because black interracial homicide is a rare event, many cities have zero incidents even after aggregating the data over a 5-year period. Including in the sample cities with rates equaling zero results in a heavily skewed distribution which violates the assumptions of ordinary least squares regression. For this reason we employ an alternative approach discussed at length in Osgood (2000) which has been used in recent homicide research (Kubrin, 2003; Kubrin and Wadsworth, 2003). We use total and disaggregated homicide counts instead of rates and employ Poisson regression models—the negative binomial variant in particular—to generate coefficients that measure the influence of structural factors on black inter- and intraracial killings.

INDEPENDENT VARIABLES

We regress homicide counts on the structural characteristics and black robbery rates of U.S. cities. Information on structural characteristics comes from the 1990 Census. The measures include: total population, region (south vs. non-south location), percent young black males aged 14 to 24, percent black, racial heterogeneity \((1 - \Sigma p_i^2)\), where \(p_i\) is the fraction of the population in a given group), percent of the black population below the poverty line, percent black males aged 16 and over not working, percent of single-parent black households with children under 18, racial segregation (Index of Dissimilarity), black income inequality (Gini Index of Family Income Concentration), racial inequality, job access and whether the city had a black mayor in 1990. The job access variable represents the employment opportunities to low-skilled persons and is computed as the ratio of the number of jobs in low-skill industries to the number of people in the population aged 25 and older with a high school diploma or less (Parker and McCall, 1999; Shihadeh and Maume, 1997).\(^5\)

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4. As motivation stems from the mental or emotional state of the offender (be it conscious or unconscious), researchers are rarely able to confidently identify the precise motive of any crime. Moreover, an offender's motive may change during the course of the homicide. However, the circumstances surrounding the crime provide enough information to categorize the offense as financially motivated or expressive. Thus for our purposes, circumstance acts as a very good, yet imperfect, indicator of motive.

5. We follow Parker and McCall (1999:456) who use Kasarda's (1989) definition of an industry group as low skill. Ten of the 17 major industry groups can be classified as being dominated by low-skill jobs. They are (1) agriculture, forestry and fisheries; (2) mining; (3) construction; (4) manufacturing, nondurable; (5) manufacturing,
There are four measures of racial inequality that reflect racial differences in education (ratio of the percentage of whites to blacks who have graduated from high school for their respective populations aged 25 and over), income (ratio of white to black median family income), employment opportunities (ratio of black to white joblessness rates), and poverty (ratio of white to black poverty rates), and which are commonly used in the research (Kovandzic et al., 1998; Messner and Golden, 1992; Parker and McCall, 1999). Related to inequality, a measure of whether or not the city had a black mayor in 1990 represents political equality, or the mobilization of black political power. Jacobs and Wood (1999) found this to be a significant predictor of interracial homicide—cities with black mayors experienced less black on white homicide—and suggested that the presence of a black mayor may attenuate feelings of powerlessness that could lead to frustration and violence.

Finally, to examine the influence of financially motivated crime on black homicide, we generated average black robbery rates for each city in the sample. Because race-specific offense rates are not available in the UCR data, and (in turn) the race of offenders in unsolved crimes is often unknown, we followed the technique Shihadeh and Ousey developed (1996) by using race-specific arrest data, along with overall offense rates, to generate estimated black robbery rates. For the years from 1989 to 1991, the black arrest rate for robbery in a given city was multiplied by the ratio of total robbery offenses to total robbery arrests in that city. This process corrects for the bias in arrest rates caused by variation in clearance rates across cities. Taking an average of the 3 years resulted in a 3-year average black robbery rate for each city. These rates are included in a subset of the models.

After running collinearity diagnostics, we determined that including many of these variables as independent predictors in the models would add significant bias due to the high correlations between them. Guided by previous research (Messner and Golden, 1992, Parker and McCall, 1999), we performed factor analysis with varimax rotation which generated two indices that capture black deprivation and racial inequality between blacks durable; (6) transportation; (7) wholesale trade; (8) retail trade; (9) personal services; and (10) entertainment and recreational services.

6. Although the accuracy of UCR arrest data is an issue of concern, it has been widely used in criminological research and is the only data in existence that can be used to generate race-specific robbery rates across a large sample of cities. One of the concerns is that the reporting is not consistent across jurisdictions, with some agencies failing to report all 12 months. In these cases, we computed average monthly African American robbery arrest counts and multiplied these by 12.

7. Due to high skewness levels, we use the natural log of the following variables: population, percent Hispanic, job access and black robbery rate.
and whites. The following variables loaded strongly on the black deprivation index (factor loadings follow in parenthesis): percent black population in poverty (.84), percent single-parent households (.83), Gini Index of Black Income Inequality (.88), black median family income (-.81), percent black males not working (.92) and residential segregation (.73). This factor had an eigenvalue of 6.05. The second index, racial inequality, with an eigenvalue of 1.71, is comprised of the ratio of white to black median family income (.78), ratio of white to black high school graduation rates (.84), ratio of black to white joblessness rates (.78) and the ratio of black to white poverty (.88). Black deprivation and racial inequality are used along with population, region, racial heterogeneity, percent black, percent young black males, percent Hispanic, job access and the presence of a black mayor to predict black interracial killings. 

**MODELS AND ANALYSES**

We estimate two sets of models predicting black interracial homicide. In the first we regress the racially disaggregated homicide counts (black offender/white victim and black offender/black victim) on the city-level structural characteristics. We then add black robbery rates to the model. The degree to which the effects of racial inequality, deprivation and presence of a black mayor are attenuated when black robbery rates are included offers insight into the process by which structural forces proposed to increase racial conflict and antagonism, influence inter- and intraracial homicide. Significant attenuation would suggest that it is the frequency of economically motivated criminal behavior, driven by structural characteristics, that influences blacks' killings of whites. Support for such a finding would cast doubt upon, or at least question, explanations that focus on social psychological processes stemming from racial antagonism and conflict. We also add a multiplicative term representing the interaction between racial heterogeneity and black robbery rates to assess whether black interracial killings are especially common in cities that have high levels of interracial contact and robbery, as macrostructural opportunity theory would predict.

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8. Even after creating factor scores for African American deprivation and racial inequality, the presence of intercorrelated predictors raises the potential for problems of multicollinearity in the regression analyses. However, diagnostics reveal that collinearity is not a problem. Such a determination was made by examining variance inflation factors, a common diagnostic technique used to determine the extent to which the standard errors in regression analyses are inflated due to multicollinearity. Large VIF values, usually above 4, are an indicator of multicollinearity according to conventional criterion for severe multicollinearity (Messner and Golden, 1992:436). All of the VIFs were below this conventional threshold.
In the second set of models we disaggregate homicide by both the race of the offender and victim as well as the circumstance in which the killing took place. If black interracial homicide stems from a process in which macrostructural forces create social psychological responses such as frustration-aggression, black rage or racial antagonism, we would expect the structural factors driving these processes to have a stronger influence on expressive—for example, assault—than on instrumental—for example, robbery—killings.

RESULTS

DESCRIPTIVE STATISTICS

Means and standard deviations for all variables are presented in Table 1. Average 5-year counts for each homicide type are 32.8 (white victim/black offender), 211.3 (black victim/black offender), 14.4 (white victim/black offender financially motivated), 7.4 (white victim/black offender expressive), 41.9 (black victim/black offender financially motivated) and 84.4 (black victim/black offender expressive). Mean city population is 366,306, with an average of 22 percent blacks and 13 percent Hispanics. About 38 percent of the cities are located in the south. The mean heterogeneity score is .48 and the average proportion of the black population that is between the ages of 14 and 24 is 9 percent. The mean job access score is .824 and 14 percent of the cities had a black mayor in 1990. The means of the variables that comprise the African American deprivation index are as follows: index of dissimilarity (66.5), black median family income ($23,279), black Gini index (.44), percent black males not working (39 percent) and percent of black households headed by a single parent (55 percent). The means of the variables that comprise the racial inequality index are as follows: ratio of white to black high school graduation rate (1.16), ratio of white to black median family income (1.73), ratio of black to white poverty rate (2.78) and the ratio of black to white unemployment (2.30). Last, the mean black robbery rate is 1726 per 100,000 blacks in the population.

STRUCTURAL CHARACTERISTICS AND BLACK INTERRACIAL HOMICIDE

Table 2 displays the regression results. Model 1 shows which structural factors are significantly associated with black interracial killings. Looking first at the measures that have been suggested to increase interracial conflict and antagonism, as expected, black deprivation increases black interracial homicide. In contrast, racial inequality and black political power are not significant predictors. Examining the role of opportunities
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>Population of the central city</td>
<td>366,306</td>
<td>700,200</td>
</tr>
<tr>
<td>South</td>
<td>0=Non-southern location 1=Southern location</td>
<td>.377</td>
<td>.486</td>
</tr>
<tr>
<td>% Black</td>
<td>% population that is black</td>
<td>22%</td>
<td>17%</td>
</tr>
<tr>
<td>% Hispanic</td>
<td>% population that is Hispanic</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>Racial heterogeneity</td>
<td>$1 - \sum p_i^2$, where $p_i$ is the fraction of the population in a given group</td>
<td>.48</td>
<td>.13</td>
</tr>
<tr>
<td>% Young black males</td>
<td>% population comprised of black males ages 14-24</td>
<td>9%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Job Access</td>
<td>Ratio of jobs in low-skill industries to the number of people in population aged 25 and over with a high school diploma or less</td>
<td>.824</td>
<td>.299</td>
</tr>
<tr>
<td>Black Mayor</td>
<td>0=City did not have a black mayor in 1990 1=City had a black mayor in 1990</td>
<td>.14</td>
<td>.35</td>
</tr>
<tr>
<td>Residential segregation</td>
<td>Index of dissimilarity</td>
<td>66.5</td>
<td>12</td>
</tr>
<tr>
<td>% black male joblessness</td>
<td>% black male population not working</td>
<td>39%</td>
<td>10%</td>
</tr>
<tr>
<td>Black median family income</td>
<td>Median income of black families</td>
<td>$23,279</td>
<td>$6,548</td>
</tr>
<tr>
<td>Black Income inequality</td>
<td>Gini index of family income inequality</td>
<td>.44</td>
<td>.04</td>
</tr>
<tr>
<td>% black poverty</td>
<td>% black families living below poverty line</td>
<td>28%</td>
<td>9%</td>
</tr>
<tr>
<td>% black single parent households</td>
<td>% black families with children headed by single parents</td>
<td>55%</td>
<td>10%</td>
</tr>
<tr>
<td>White/Black high school graduation rate</td>
<td>Ratio of white to black high school graduation rates</td>
<td>1.16</td>
<td>.17</td>
</tr>
<tr>
<td>White/Black median income</td>
<td>Ratio of white to black median family income</td>
<td>1.73</td>
<td>.38</td>
</tr>
<tr>
<td>Black/White poverty rate</td>
<td>Ratio of black to white poverty rates</td>
<td>2.78</td>
<td>.99</td>
</tr>
<tr>
<td>Black/White joblessness rate</td>
<td>Ratio of black to white joblessness rates</td>
<td>2.30</td>
<td>.66</td>
</tr>
<tr>
<td>Crime Rates</td>
<td>Black Robbery rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race Adjusted Homicide Counts</td>
<td>Black intercourse</td>
<td>Black offender and white victim total homicide counts</td>
<td>32.8</td>
</tr>
<tr>
<td>Black intraracial</td>
<td>Black offender and black victim total homicide counts</td>
<td>211.3</td>
<td>513.7</td>
</tr>
<tr>
<td>Black intraracial financially motivated</td>
<td>Black offender and white victim financially motivated homicide counts</td>
<td>14.4</td>
<td>36.8</td>
</tr>
<tr>
<td>Black intraracial expressive</td>
<td>Black offender and white victim expressive homicide counts</td>
<td>7.4</td>
<td>21.2</td>
</tr>
<tr>
<td>Black intraracial financially motivated</td>
<td>Black offender and black victim financially motivated homicide counts</td>
<td>41.9</td>
<td>96.0</td>
</tr>
<tr>
<td>Black intraracial expressive</td>
<td>Black offender and black victim expressive homicide counts</td>
<td>84.4</td>
<td>196.9</td>
</tr>
</tbody>
</table>
for interracial contact, racial heterogeneity significantly increases black-on-white homicide, but job access has no effect. Other significant variables include population size, southern region and percent black. In sum, cities with higher rates of black deprivation, larger populations, greater racial diversity, more blacks, and those located outside of the south had higher levels of black interracial homicide.

Model 2 adds city-level black robbery rates to the equation. As expected, the robbery rate has a highly significant positive effect on black interracial homicide. Not surprisingly, cities with high black robbery rates have high levels of black interracial homicide. More importantly however, after adding black robbery rates to the model, African American deprivation is no longer a significant predictor and its effect is reduced by more than 70 percent. The results of a test for “seemingly unrelated estimation” (STATA Reference Manual, 2003) show that the coefficient for African American deprivation is statistically significantly different in Model 1 than in Model 2. Likewise, region of the country and racial heterogeneity are no longer significant predictors. These findings suggest that robbery mediates the influence of structural characteristics, especially black deprivation and racial diversity, on black interracial killings; deprivation fuels robbery, which in turn, increases this type of homicide. 9

Model 3 explores the possibility that high levels of black interracial homicide will, in part, result from high rates of robbery and high rates of interracial contact (the combination of motivation and opportunity). To test this possibility we added an interaction term that represents the multiplicative effects of black robbery and racial heterogeneity. The findings show that the interaction term is significant and positive; cities with high robbery rates and high heterogeneity levels have greater numbers of black interracial killings than do cities with high robbery rates but lower levels of racial heterogeneity and cities with high rates of heterogeneity but lower black robbery rates.

Model 4 of Table 2 demonstrates that, for the most part, the predictors of black intraracial homicide are the same as those for black interracial homicide. Most of the structural characteristics, including black deprivation, have similar effects across the two models. Cities with large

9. To explore this mediating process more systematically, we ran OLS regression to estimate the relationships between the independent variables in Table 2 (Model 1) and the black robbery rates. The findings bolster our argument that much of the influence that black deprivation and racial heterogeneity have on black interracial homicide is caused by their effect on black robbery rates. Other than population size, region and percent black, heterogeneity and black deprivation are the only variables that significantly increase black robbery rates. All together the variables explain about 36 percent of the variance in the dependent variable. The table reporting these results is in the appendix.
populations, more blacks, high rates of black deprivation and racial heterogeneity have more black-on-black homicide. Once again, racial inequality and black political power, as well as job access, are not significant predictors. Two exceptions to the otherwise similar findings are that in the intraracial models, region of the country is not a significant predictor and percent Hispanic has a negative effect on black intraracial killings.

Despite the similar effects of the structural characteristics on the homicide counts, a crucial difference between the inter- and intraracial analyses emerges in Model 5, when black robbery rates are added to the equation. In the intraracial model, the influence of black deprivation on black victim/black offender killing remains highly significant. In other words, the effect of deprivation on black-on-black killing does not appear to be the result of high rates of robbery. This suggests a different process by which black deprivation leads to black intraracial killing.

As discussed, another approach for exploring the causal process by which structural characteristics influence black interracial killing is to examine the influence of these characteristics on race-specific homicides disaggregated by motive (financially motivated vs. expressive). The models in Table 3 reveal these effects. As Model 1 shows, population size, racial heterogeneity, percent black and percent Hispanic are all associated with white victim/black offender financially motivated homicide. More important, black deprivation is significantly positively associated with black interracial financially motivated homicide.

Turning to Model 2, which assesses the effects of these characteristics on expressive killings, we see some differences. Black deprivation is not significantly related to expressive white victim/black offender homicides. While population size, racial heterogeneity and percent black appear to increase both financial and expressive black interracial killings, the effect of disadvantage on black interracial killings appears to be limited to those murders motivated by financial gain. This finding is consistent with the attenuation process caused by the addition of robbery rates in Model 2 of Table 2. However, when we used the equation $t = b_1 - b_2 \sqrt{(SEb_1^2 + SEb_2^2)}$ (Paternoster et al., 1998) to test whether the black deprivation coefficients were statistically significantly different from one another across the expressive and instrumental models, the results indicated that they were not significantly different at the p < .05 level. Thus, while the levels of significance within the models are consistent with the findings in Table 2, they must be interpreted with some caution.

Two other differences emerge between the financially motivated and expressive homicides—the influence of region and job access. While having no effect on financial homicides, after controlling for a variety of important structural characteristics, southern location decreases the
Table 2. Structural Characteristics on Black Interracial Homicide Counts

<table>
<thead>
<tr>
<th>Variable</th>
<th>White Victim/Black Offender</th>
<th>Black Victim/Black Offender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1 Structural Characteristics</td>
<td>Model 2 With Robbery Rates</td>
</tr>
<tr>
<td>1990 Population (LN)</td>
<td>1.095*** (.069)</td>
<td>1.035*** (.059)</td>
</tr>
<tr>
<td>South</td>
<td>-.260* (.127)</td>
<td>-.086 (.113)</td>
</tr>
<tr>
<td>Racial Heterogeneity</td>
<td>1.211* (.603)</td>
<td>.797 (.548)</td>
</tr>
<tr>
<td>% Black</td>
<td>2.651*** (.550)</td>
<td>2.839*** (.473)</td>
</tr>
<tr>
<td>% Hispanic (LN)</td>
<td>.095 (.064)</td>
<td>.002 (.005)</td>
</tr>
<tr>
<td>% Young Black Males</td>
<td>-3.343 (3.973)</td>
<td>-2.972 (.3506)</td>
</tr>
<tr>
<td>Black Deprivation</td>
<td>.219** (.077)</td>
<td>.062 (.074)</td>
</tr>
<tr>
<td>Black Inequality</td>
<td>-.015 (.066)</td>
<td>-.032 (.058)</td>
</tr>
<tr>
<td>Job Access (LN)</td>
<td>.190 (.270)</td>
<td>.129 (.243)</td>
</tr>
<tr>
<td>Black Mayor</td>
<td>-.324 (.260)</td>
<td>-.271 (.233)</td>
</tr>
<tr>
<td>Black Robbery Rate (LN)</td>
<td>-----</td>
<td>.620** (0.109)</td>
</tr>
<tr>
<td>Heterogeneity</td>
<td>-----</td>
<td>1.856* (.677)</td>
</tr>
<tr>
<td>Black Robbery Constant</td>
<td>-11.358 (.979)</td>
<td>-15.408 (1.121)</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>539.33</td>
<td>389.17</td>
</tr>
<tr>
<td>$P$</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>-2 LL</td>
<td>-529.671</td>
<td>-500.005</td>
</tr>
<tr>
<td>Pseudo $R^2$</td>
<td>.208</td>
<td>.237</td>
</tr>
</tbody>
</table>

* $p < .05$  ** $p < .01$  *** $p < .001$

Entries are unstandardized coefficients followed by standard errors in parentheses.
number of black-on-white expressive homicides. More importantly, given
the focus of our research, while job access has no effect on financially
motivated killings, it significantly increases expressive interracial
homicides, though a test for the difference between slopes suggests that
the coefficients are only statistically different from each other using a
liberal level of statistical significance ($p < .10$), and thus must be interpreted
with some caution. The effect of job access, and what type of opportunities
for contact it represents, is discussed more thoroughly below.

Models 3 and 4 in Table 3 assess the relationships between structural
characteristics and financially motivated and expressive black-on-black
homicides. For comparison purposes (contrasting the inter- and intraracial
models), the important finding to note is that black deprivation increases
the number of financially motivated and expressive black intraracial
homicides. Most of the other coefficients are similar to those found in the
interracial models. For both types of black intraracial homicide,
population size, racial heterogeneity, percent black and black deprivation
significantly increase the number of killings while racial inequality, the
presence of a black mayor, percent of the black population that is young
and male, and region of the country had no significant influence.

In sum, our findings suggest that among the measures that have been
suggested to influence racial conflict and antagonism, black deprivation,
but not racial inequality nor black political power, was an important
predictor of black interracial killings in U.S. cities in the late 1980s and
early 1990s. Cities with high rates of black deprivation had significantly
higher levels of black interracial homicide, controlling for other factors.
However, the findings also suggest that the effect of deprivation on
interracial killing is due to economic motivations and opportunities for
interracial contact, not social psychological responses such as frustration-
aggression or racial antagonism. The theoretical implications of these
findings are discussed below.

DISCUSSION

The aim of this study was to examine the assumption in prior research
that economic deprivation among blacks and racial inequality increases
blacks’ killings of whites because of racial antagonism or other social
psychological responses. Prior research has found that deprivation and
inequality indeed influence interracial violence, but have not demon-
strated that this is due to antagonism or hostility. Because these responses
are only inferred, there is a risk of incorrectly identifying the causal
mechanism driving variation in black interracial homicide. This study
questioned this causal process and proposed an alternative explana-
tion that draws on macrostructural opportunity theory, which focuses
Table 3. Structural Characteristics on Black Interracial Homicide Counts

<table>
<thead>
<tr>
<th>Variable</th>
<th>White Victim/Black Offender</th>
<th>Black Victim/Black Offender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1 Financially Motivated</td>
<td>Model 2 Expressive</td>
</tr>
<tr>
<td>1990 Population (LN)</td>
<td>1.087*** (.091)</td>
<td>1.058*** (.085)</td>
</tr>
<tr>
<td>South</td>
<td>-.063 (.1680)</td>
<td>-.620*** (.170)</td>
</tr>
<tr>
<td>Racial Heterogeneity</td>
<td>2.599** (.857)</td>
<td>1.931* (.789)</td>
</tr>
<tr>
<td>% Black</td>
<td>3.052*** (.744)</td>
<td>1.640* (.674)</td>
</tr>
<tr>
<td>% Hispanic (LN)</td>
<td>.065 (.082)</td>
<td>.068 (.090)</td>
</tr>
<tr>
<td>% Young Black Males</td>
<td>-4.177 (.5367)</td>
<td>-5.452 (5.513)</td>
</tr>
<tr>
<td>Black Deprivation</td>
<td>.294** (.103)</td>
<td>.201 (.108)</td>
</tr>
<tr>
<td>Black Inequality</td>
<td>-.056 (.084)</td>
<td>-.068 (.092)</td>
</tr>
<tr>
<td>Job Access (LN)</td>
<td>.350 (.371)</td>
<td>1.021*** (.359)</td>
</tr>
<tr>
<td>Black Mayor</td>
<td>-.532 (.344)</td>
<td>-.017 (.346)</td>
</tr>
<tr>
<td>Constant</td>
<td>-12.887 (1.275)</td>
<td>-12.060 (1.302)</td>
</tr>
</tbody>
</table>

χ²                     | 274.74                     | 95.49                     | 1346.01                    | 1512.68         |
P                        | .000                      | .000                      | .000                      | .000            |
-2 LL                    | -430.491                   | -346.032                   | -531.219                   | -632.361        |
Pseudo R²                | .191                      | .220                      | .184                      | .180            |

* p < .05  ** p < .01  *** p < .001

Entries are unstandardized coefficients followed by standard errors in parentheses.
less on the motivation for interracial killings and more on opportunities for interracial contact and how such opportunities may interact with financially motivated criminal behavior to increase interracial killing.

Our findings question conflict explanations for black interracial homicide. While economic deprivation among African Americans was associated with this type of homicide, the effect of deprivation was greatly reduced and rendered insignificant once black robbery rates were included in the model. This suggests that economic deprivation leads to more robbery which, in turn, increases blacks' killings of whites. This finding was reinforced by interaction analyses which revealed that black interracial homicides are most likely to result from high rates of robbery and high rates of interracial contact—a combination of financial motivation and opportunity. Cities with the greatest numbers of black interracial killings had the highest levels of racial heterogeneity and robbery rates, a finding generally consistent with the macrostructural opportunity perspective.

Results from a second set of analyses buttress this argument. Because the circumstance of the homicide is the best available indicator of the homicide motive, we disaggregated black interracial killings into financially motivated and expressive, and examined the structural correlates of each type. Consistent with our prediction, black deprivation was significantly associated with black interracial financially motivated but not expressive homicides. However, as discussed, it must be noted that appropriate tests for the differences across equations suggest that the coefficients representing the effects of black deprivation are not statistically different from each other, and thus must be interpreted with some caution. The second set of analyses also suggests that job access increases expressive, but not financially motivated, interracial homicide (the difference between the coefficients is significant at the p < .10 level). This offers additional support for macrostructural opportunity theory and adds further evidence for the importance of disaggregating homicide by motive. Although racial heterogeneity is an appropriate measure of the likelihood of general interaction between members of different racial groups, job access measures the likelihood of interaction in and around a specific environment—work. While it is understandable that work-based interaction may lead to interracial killing as a result of arguments at work or during after hours socializing, it is less likely that work-based interracial interaction would lead to financially motivated homicide. Yet without disaggregating by motive, the relationship between job access and interracial homicide may be suppressed. Our study is the first to examine interracial killings disaggregated by motive. Its results suggest that this type of disaggregation is essential for developing a deeper understanding of the causes of interracial homicide.
Although the findings imply that the connection between black deprivation and black interracial killing appears to be fueled by financial acquisition and not expressive violence, one could suggest that financially motivated interracial crime may be explained by frustration-aggression. It could be the case that blacks express their antagonism for whites by choosing white targets for financial crimes. While we have no way of empirically challenging this critique with the current data, groundbreaking ethno-graphic research on street robberies suggests that this is not likely. After in-depth interviews with 86 active armed robbers, Wright and Decker (1997) conclude the following with respect to black interracial robberies:

Armed robbery often is an interracial event in which a white victim is confronted by a black assailant. This raises a question as to whether such crimes are racially motivated. To be sure, a majority of the black offenders in our sample routinely robbed whites; some even expressed a strong preference for white victims. But none of these offenders indicated that they were motivated to rob whites specifically by racial hatred. In fact, only two of the interviewees admitted to disliking whites, and neither of them had ever robbed one (pg. 59).

Although not the main focus of the study, the findings on black intraracial killings are informative as a point of contrast. Most of the structural characteristics, including black deprivation, have similar effects on inter- and intraracial homicide. A critical difference emerges, however, when considering the role that robbery plays in the deprivation-interracial homicide relationship. Unlike with interracial killings, in the intraracial model, black deprivation remains highly significant after adding robbery rates to the equation. In other words, the effect of deprivation on black-on-black killing does not result from high robbery rates, as was the case with black interracial homicide. Further analyses demonstrated that black deprivation significantly increases both financially motivated and expressive black-on-black killing. These findings are consistent with prior research and suggest a different process by which black deprivation leads to black intraracial killing.

Kubrin and Wadsworth (2003) discuss one explanation in detail. Specifically, they find that, at the neighborhood level, concentrated disadvantage among African Americans is associated with most types of black-on-black killings including gang, intimate, and stranger and nonstranger altercation killings. They draw on recent advances in social disorganization theory to argue that concentrated disadvantage can influence homicide by (a) attenuating the larger cultural values, (b) creating a climate in which the willingness to participate in violence is one of the few strategies males have for earning the respect and admiration of
their peers (and for protecting oneself and one’s belongings) and (c) increasing frustration, anger and despair among residents. The current research, while at the city-level, suggests that killing outside of one’s racial group is less the result of building respect or expressing frustration, and is more influenced by financial motives that stem from race-based poverty and deprivation.

A somewhat unexpected, but not unprecedented, finding concerns the role of economic, educational and employment inequality, as well as political competition, between blacks and whites. Our measures of racial inequality and black political power were not significant predictors of homicide in any of our models. Given the findings in previous research (Jacobs and Wood, 1999; Parker and McCall, 1999), we originally thought that both racial inequality and weaker black political power might also lead to high rates of interracial homicide. But given our finding that black interracial killings were the result not of racial antagonism but of attempts at financial gain, it is not surprising that absolute rather than relative deprivation predicts blacks’ killings of whites.

The current work advances our understanding of black interracial homicide by utilizing advanced methodological approaches to test an alternative causal process that has not previously been explored in the literature. Our strategy for adjusting the Supplemental Homicide Report data to better reflect the true distribution of victims and offenders of different races and the use of negative binomial regression strengthen our confidence that explanations for black interracial homicide based on racial antagonism, frustration-aggression or other social psychological explanations are premature. The results suggest that a more suitable explanation for understanding black interracial killing is related to the combination of opportunities for social interaction between blacks and whites as well as financial motivations to engage in violence.

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Tim Wadsworth is an assistant professor of sociology at the University of New Mexico. His research addresses the influence of economic and labor market structures on criminal behavior. His work has appeared in Social Forces, Homicide Studies and Sociological Focus.

Charis E. Kubrin is an assistant professor of sociology at George Washington University. Her research addresses neighborhood correlates of crime, with an emphasis on race and violent crime. Her work has appeared in Journal of Research in Crime and Delinquency, Homicide Studies, Social Problems, Sociological Quarterly and Research in Community Sociology.
## Appendix. OLS Regression of Structural Characteristics on Black Robbery Rates

<table>
<thead>
<tr>
<th>Variable</th>
<th>Black Robbery Rates (LN)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1990 Population (LN)</td>
<td>0.104°</td>
<td>0.052</td>
</tr>
<tr>
<td>South</td>
<td>-0.263**</td>
<td>0.095</td>
</tr>
<tr>
<td>Racial Heterogeneity</td>
<td>1.127**</td>
<td>0.402</td>
</tr>
<tr>
<td>% Black</td>
<td>-0.928°</td>
<td>0.377</td>
</tr>
<tr>
<td>% Hispanic (LN)</td>
<td>0.370</td>
<td>0.414</td>
</tr>
<tr>
<td>% Young Black Males</td>
<td>-2.520</td>
<td>2.622</td>
</tr>
<tr>
<td>Black Deprivation</td>
<td>0.223***</td>
<td>0.052</td>
</tr>
<tr>
<td>Black Inequality</td>
<td>0.000</td>
<td>0.052</td>
</tr>
<tr>
<td>Job Access (LN)</td>
<td>0.112</td>
<td>0.175</td>
</tr>
<tr>
<td>Black Mayor</td>
<td>0.095</td>
<td>0.136</td>
</tr>
<tr>
<td>Constant</td>
<td>5.872</td>
<td>0.693</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td></td>
<td></td>
</tr>
</tbody>
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°: Entries are unstandardized coefficients followed by standard errors in parentheses and standardized coefficient underscored.

° p < .05  ** p < .01  *** p < .001