
Mobilizing Law in Urban Areas: The Social Structure of Homicide Clearance Rates

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This research explores the utility of Black's theory of law for explaining differences in homicide clearance rates across large cities in the United States. Using insights from the social disorganization literature, we develop and evaluate hypotheses regarding homicide clearance rates and aggregate measures of stratification, morphology, culture, organization, and alternative social control. Our findings support the argument that the rate of clearing homicide cases varies according to the social characteristics of the location where they occur. In particular, clearance rates were highest in cities marked by greater racial disparities in education, income, employment, and residence; greater residential stability; higher levels of educational attainment; higher expenditures for educational programs; and lower rates of homicide. We discuss the implications of our analysis for both the social disorganization literature and Black's theory, and we suggest directions for further inquiry into the relationship between structural conditions in urban areas and homicide clearance rates.

Nationally, the police fail to clear approximately 80% of all index crimes and one of every three cases of lethal violence (FBI 1997:205–06). Index crimes refer to the eight crime categories listed in the Uniform Crime Reports, the FBI's annual compilation of crime statistics. These eight are homicide, rape, robbery, aggravated assault, burglary, larceny theft, motor vehicle theft, and arson. It is interesting to note that FBI data provide evidence of substantial differences in police clearance activity across geographic locations. For example, 1996 clearance rates for homicide cases were highest (approximately 79%) in small cities and rural counties, and lowest (about 66%) in the nation's largest cities and suburban counties (FBI 1997:22). Despite these variations, sociological research examining how the likelihood of clearing criminal cases is influenced by the social and economic characteristics of the location where they occur is sparse (Tittle & Rowe 1974; Brown 1978). In this research we address that void by

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examining factors that contribute to the clearance of homicide cases in the context of urban areas.

Several studies have analyzed clearance rates from an econometric framework (see, e.g., Phillips & Votey 1972; Sjoquist 1973; Pogue 1975; Theiler 1977; Wilson & Boland 1978; Cloninger & Sartorius 1979; Cook 1979) and have modeled changes in clearance rates over time (Greenberg & Kessler 1982).¹ The majority of these analyses use clearance rates, or alternatively, arrest rates, within explanatory models focused on evaluating deterrence arguments. In particular, studies have examined the link between clearance or arrest rates and crime rates. Results regarding this relationship are mixed. Although some studies demonstrate a crime-prevention effect of arrests on crime rates (Phillips & Votey 1972; Sjoquist 1973; Wilson & Boland 1978; Cloninger & Sartorius 1979), others fail to find consistent evidence that higher clearance rates result in significantly lower crime rates (Greenberg & Kessler 1982; the authors also provide a thorough critique of other empirical studies in this regard).

The relative scarcity of empirical analyses investigating the link between community conditions and the likelihood of clearing crime is especially noteworthy in light of sociological scholarship emphasizing the significance of structural conditions on crime rates. For instance, social disorganization theory posits that areas plagued by multiple layers of disadvantage suffer high crime rates due to a lack of social, economic, and institutional resources to effectively prevent and fight crime, either informally through family, church, and neighborhood efforts, or formally, through police activity (Shaw & McKay 1942; Kornhauser 1978; Messner 1982; Bursik 1988; Sampson & Groves 1989; Messner & Sampson 1991). As Krivo and Peterson (1996:622) describe,

the concentration of poverty and other disadvantages [in severely impoverished communities] results in fewer networks of informal control, and fewer viable conventional community-based institutions that discourage crime. . . . As a result, the costs associated with engaging in crime and violence are lessened and the possible deterrent effect of the law is reduced.

Related analyses have focused on the impact of conditions such as economic inequality, poverty, racial segregation, and family disruption on crime rates (see, e.g., Kornhauser 1978; Crutchfield et al. 1982; Bursik 1988; Sampson & Groves 1989; Messner & Golden 1992; Sampson & Wilson 1995).

Despite the importance of social control mechanisms to these studies, empirical analyses estimating social control *itself* have not been plentiful. One exception is a group of recent studies examining the mediating effect of informal social control on the relationship between community conditions and crime (e.g.,

¹ We thank David Greenberg and an anonymous reviewer for *Law & Society Review* for bringing these studies to our attention.

Sampson et al. 1997, 1998, 1999). Sampson et al. (1997, 1999) use measures such as the willingness of residents to watch over one another's property to indicate informal social control, or collective efficacy. They have found empirical support for the argument that various neighborhood characteristics influence levels of collective efficacy, which in turn have an impact on crime rates. Notably, the literature lacks similar analyses evaluating the impact of community composition on the effectiveness of *formal social control*, such as mobilizing the law in response to conflict. This omission is significant to the extent that empirical studies may identify the relative importance of different community characteristics on various types of social control mechanisms.

A theory of law initially proposed in 1976 by Donald Black (1976) provides one possible framework for investigating this issue, and more generally, for extending previous work on clearance rates. In *The Behavior of Law*, Black (1976:2) defines law as "governmental social control," including activities that involve mobilizing the criminal justice system, such as reporting a crime to the police, investigating an offense, collecting evidence, or making an arrest that clears a crime. Black proposes that law varies in response to five aspects of social life: stratification, morphology, culture, organization, and alternative social control. Although most empirical evaluations of his theory have used individual-level data, examining, for example, the likelihood of calls to the police by citizens based on their economic status, Black argues that his perspective is applicable to groups, neighborhoods, and societies as well (for a review of the empirical research, see Doyle & Luckenbill 1991; Lessan & Sheley 1992). Insofar as clearance statistics reflect the cumulative outcome of police activity, they provide an aggregate-level measure of law according to Black's definition; hence, his theory may hold useful insights for studying their variation.

Since its initial publication in 1976, Black's theory of law has evolved into a more general theory of social control, with some important modifications (see, especially, Black 1995). In particular, Black argues that the *social structure of a case* explains the quantity and style of social control that will ensue (1993, 1995). This social structure includes the characteristics of each party in a conflict, their relationship to one another, and the larger context in which they interact. Black identifies five status dimensions, analogous to the five proposed in his earlier work, that together define these characteristics, relationships, and ties (i.e., a case's social structure): the vertical (economic); horizontal (morphology, or differentiation, integration, and intimacy); cultural; organizational; and normative (alternative social control).

With its emphasis on relational data, Black's perspective suggests a case-level analysis to explain social control outcomes. Since such exhaustive empirical data are rarely available, most

analyses and applications of Black's theory have concentrated on examining the influence of one or another aspect of a cases's social structure on social control outcomes (see, e.g., Baumgartner 1988; Morrill 1995; Senechal de la Roche 1996).²

Our study is subject to similar constraints since clearance data on a case-by-case basis are unavailable. However, we argue that Black's theory—particularly as initially proposed in *The Behavior of Law*—is nonetheless applicable to examining how community-level characteristics influence clearance rates across urban areas to the extent that those aggregate-level characteristics are suggestive of the nature of relationships among individuals living in these areas.³ In particular, Black's framework suggests a link between the characteristics of a setting, along the five dimensions proposed in *The Behavior of Law*, and the likelihood of police to clear the crimes occurring there.

The foregoing discussion suggests two areas worthy of further investigation: First, though existing criminological literature suggests the relevance of urban or structural conditions on various rates of crime and criminal justice activity, we are aware of no sociological analyses to date examining how these same structural conditions may affect the police clearance of homicide cases across urban areas in the United States (but, see Mesch & Talmud 1998). By examining the relationship between homicide clearance rates and community characteristics we seek to contribute to the growing literature that studies the underlying processes through which community factors influence criminal activity and criminal justice outcomes (Krivo & Peterson 1996:642). Our identification of factors associated with higher clearance rates may suggest an allocation of public resources that enhances the ability of police to clear cases and that leads to a reduction in the overall level of crime.

Second, although Black argues that his theory is applicable to groups, empirical studies evaluating his hypotheses have been

² E.g., others have applied Black's theory to describe characteristics of suburban areas that encourage avoidance-type forms of social control (Baumgartner 1988); features of organizations that facilitate confrontational, penal, or avoidance strategies of conflict management (Morrill 1995); and characteristics of groups that lead to collective violence such as lynching and rioting (Senechal de la Roche 1996). Each of these studies, and others, identify macrolevel characteristics that encourage variable social control processes and argue that these aggregate characteristics imply information about the nature of relationships between individuals interacting within the groups. Hence, Morrill (1995) describes organizations with extensive hierarchies as more prone to penal styles of social control because hierarchy breeds authoritative relationships between superiors and subordinates. Similarly, Senechal de la Roche (1996) argues that, historically, cities with higher levels of ethnic and racial desegregation experience higher rates of collective violence (such as lynching) because desegregation suggests an increase in relational distance between individuals (Senechal de la Roche 1996:106–207).

³ At the same time, and noting the ecological fallacy, we do not propose to suggest that the structural features of the urban areas we examine explain why one individual, compared to another, mobilizes the law. We thank an anonymous reviewer of *Law & Society Review* for assisting us in making this important distinction.

conducted primarily at the individual level (Gottfredson & Hindelang 1979; Braithwaite & Biles 1980; Myers 1980; Kruttschnitt 1980–81; Smith 1987; Massey & Myers 1989; Doyle & Luckenbill 1991; Borg 1998). Only one macrolevel investigation (Lessan & Sheley 1992), and none using cities as the unit of analysis, currently exist in the sociological literature. Although individual-level evaluations have found mixed support for his hypotheses (see, e.g., Gottfredson & Hindelang 1979; Myers 1980; Hembroff 1987; Staples 1987; Smith & Uchida 1988; Doyle & Luckenbill 1991; Borg 1998), the utility of Black's theory for explaining macro-sociological processes, as reflected in clearance rates, remains open to question. By providing a structural level application of Black's hypotheses, we therefore contribute to the empirical evaluation of his theory at the macrolevel. The central question we examine is: To what extent is variation in homicide clearance rates explained by the five aspects of social life proposed by Black in his theory of law?

Conceptual Argument

Clearance Rates as a Measure of Law

Clearance rates represent the ratio between the number of solved cases to the number of cases reported to the police within a given time period (FBI 1997:199). To the extent that resolving cases is a measurable goal or outcome of police work, clearance rates provide a structural level indicator of law consistent with Black's framework (Bayley 1994; Mesch & Talmud 1998). Also consistent with his general argument, their variation seems to have a social basis in at least two ways. First, the likelihood of clearing any specific crime is partially a function of the criminal justice resources expended toward its investigation. Most directly, this involves police activities such as collecting and preserving evidence, interrogating suspects, interviewing witnesses, and pursuing leads. Existing research suggests that such resources are not consistently allocated across cases, even those involving the same type of offense (Cooney 1994). As LaFree (1989) notes,

[E]vidence does not create itself. Its generation requires human labor and interpretation, and usually, economic resources. Because evidence must be generated, officials create more or less of it depending on their conceptions of cases. Cases that they are less interested in winning, for whatever reasons, generally receive less work and thus generate less evidence. (105–6)

Second, when they are conducting investigations, police are heavily dependent on the willingness of victims, witnesses, and area residents to provide information regarding a case, particularly the offender's identity. Here again, research suggests that

such willingness is far from a fixed commodity, but instead is influenced by two important social dynamics: the state of relations between police and community residents, and the relationship among victims, offenders, and witnesses. For example, descriptive studies suggest that members of lower-status groups view the police, and the criminal justice system in general, with significant distrust and are often reluctant to become involved in official investigations (Cooney 1994, 1997; Canada 1995; Marshall & Wheeler 1996; Rose & Clear 1998). With regard to relations among parties to a crime, Cooney (1994) uses Black's theory (1993, chap. 7) to argue that witnesses are more likely to come forward to support their intimates rather than strangers, and are more likely to offer support in cases involving higher- rather than lower-status victims. To the extent that clearance rates reflect the variable allocation of monetary and human resources in the process of collecting evidence that culminates in resolving a case, clearance rates are consistent with Black's conceptualization of law as a variable social phenomenon.

Law and Other Aspects of Social Life

Black argues that law varies in response to stratification, morphology,⁴ culture, organization, and alternative social control. We proceed by outlining Black's theoretical argument regarding the relationship between law and each of these, particularly at the aggregate level. Where appropriate, we also discuss social disorganization theory as it pertains to Black's hypotheses.

Stratification

Black (1976:11) defines stratification as the vertical aspect of social life, including "any uneven distribution of the material conditions of existence." According to Black, one way to assess stratification is in terms of "the vertical distance between the people of a social setting. This distance is measured by the difference in wealth, on the average, between each person or group and every other" (1976:13). Black, arguing that stratification varies historically, cross-culturally, and across groups within a society, hypothesizes that law varies directly with stratification, whereby increasing levels of inequality lead to a greater quantity of law.

⁴ We note that we are unable to account for one key aspect of Black's theory in our research design. In particular, the relational distance between victims and offenders in homicide cases, according to Black's theory, should exert a significant influence on the likelihood of clearing them. This dimension of morphology is especially significant in homicide cases, given the tendency for lethal violence to involve individuals with a prior relationship. Unfortunately, disaggregated homicide case clearance data at the city level are not readily available. Although we are unable to include measures of this dimension in our present analysis, we address this issue in our conclusions and discuss the need for future work focusing on this question. Our analysis here should contribute to the foundation for such additional empirical work.

As traditional modes of production and distribution disappear, inequality proliferates across the world and law increases in every way. Legislation increases, as do policing and inspection, litigation, damages and punishment. . . . [T]he same applies across settings of every kind, even within a single community. There is less law among neighbors, colleagues, friends—less wherever people are more equal. (1976:14–15)

At the aggregate level, Black's argument suggests that urban areas with greater inequality will tend to have more law compared to their more-egalitarian counterparts.

Horwitz (1990:146–49) argues similarly that authoritative forms of social control, like the law, develop in settings marked by increasing social distance. Social distance evolves from a variety of sources, including stratification, heterogeneity, mobility, and urbanization, and it encourages governmental social control for two reasons: First, when settings increasingly comprise individuals who lack close ties to one another, informal strategies for handling conflict and maintaining order lose their effectiveness; second, hierarchy and distance allow for the emergence of non-partisan third parties with sufficient authority and power to make and enforce rules (Horwitz 1990:148). Hence, stratification is one variable associated with the historical development of police forces, the growth of the courts, and the increasing complexity of law.

These arguments are relevant to social disorganization literature, which has long studied the relationship between inequality and homicide rates (Loftin & Hill 1974; Blau & Blau 1982; Messner 1983; Sampson 1986; Chamlin 1989). Key to the social disorganization perspective is the idea that structural conditions such as segregation and economic inequality impede the development of ties among residents, ties that would otherwise promote effective social control. Most of the analytic focus among social disorganization theorists has been on demonstrating how inequalities in wealth, education, residence, and the like influence a breakdown in community organization and *informal* social control. Although Black's theory and the social disorganization literature both suggest that such structural conditions will also impact *formal* social control, each perspective hypothesizes a different relationship between the two. That is, the social disorganization framework implies that various forms of inequality will *reduce* the effectiveness of social control, while Black proposes that under such conditions, formal social control mechanisms, like the law, will *grow*.⁵ By empirically evaluating the relationship between stratification and homicide clearance rates, our analysis may pro-

⁵ In drawing this comparison, we wish to note a subtle but significant difference in the explanatory focus of each theory. While social disorganization theory suggests factors that influence the effectiveness of social control, Black's theory does not hypothesize relationships with regard to effectiveness. His propositions predict the quantity and style of law only.

vide insight to both perspectives by indicating whether the inverse relationship predicted by social disorganization theory or the direct relationship hypothesized by Black is more strongly supported.

Morphology

Black's second proposition refers to the relationship between "morphology" and the mobilization of law. According to Black, morphology is the "horizontal aspect of social life, the distribution of people in relation to one another, including their division of labor, networks of interaction, intimacy, and integration" (1976:37). We focus on the last dimension of morphology identified by Black, integration, or the extent to which people participate in social life. Among other indicators, Black suggests marital status, employment, and residential stability as measures of integration, and he hypothesizes that law increases with participation in each of these social institutions:

An offense between two employed men is more likely to result in legal action than an offense between two who are unemployed . . . one between two residents more than one between two transients. If a vagrant victimizes another vagrant, for instance, the police are less likely to hear about it. If they are summoned, they are less likely to make an arrest, and if they do, a prosecutor, judge or jury is less likely to be severe. An offense between marginal people is less serious than an offense between people more integrated in social life. (1976:49)

Prior studies using cities or neighborhoods as units of analysis have employed measures such as joblessness, unemployment, single-parent households, and residential mobility to indicate residents' attachment to major social institutions (e.g., Shihadeh & Flynn 1996). Analyses have found that such factors impede the development of effective mechanisms of informal and formal social control (Sampson 1987; Wilson 1987; Shihadeh & Steffensmeier 1994; Krivo & Peterson 1996). Without the strong stake in community life that marriage, employment, and long-term residence encourage, community crime-fighting efforts and police-community relations may suffer (Bursik & Grasmick 1993). To the extent that such activities involve mobilizing the law, these arguments are consistent with Black's proposition that lower levels of social integration will be associated with lower levels of law—and by extension, lower homicide clearance rates.

Culture

Culture is the third aspect of social life hypothesized by Black to affect the quantity of law. Black (1976:61–63) defines culture as the "symbolic aspect of social life" as manifested through language, concepts, religions, values and customs, food, clothing,

and the like. He argues that variations in the quantity of culture affect the behavior of law: Individuals and settings with more culture will tend to have greater levels of law. Black suggests education and literacy as measures of the quantity of culture. More-educated individuals are more likely to use the legal system in response to conflicts and tend to have greater success when they do (Black 1976:64; see also Horwitz 1990:159). Beyond the individual, communities and neighborhoods also vary in the quantity of culture and the corresponding quantity of law that characterizes them.

The quantity of culture varies across a single society as well. Some regions may have more than others, for instance with coastal regions typically having more culture than interior regions, urban areas more than rural. . . . Some communities have more than others, some neighborhoods, occupations, organizations or families have more than others. . . . [W]herever symbolic life is most advanced, so is law. (Black 1976:64)

Insofar as culture is one measure of social status, these propositions are consistent with Cooney (1994), who argues that killings in lower-status communities typically generate less evidence compared to homicides in more upper-status locations (Cooney 1994:844; see also Simon 1991:147). In terms of clearance rates, then, these arguments suggest that homicides occurring in areas with more cultural status are more likely to be resolved by the police compared to those occurring in lower-status areas.

Organization

Black's fourth proposition refers to the relationship between organization and law. "Organization is the corporate aspect of social life, the capacity for collective action" (Black 1976:85). Black suggests the presence and number of administrative officials, the number of voluntary associations or memberships, the degree of centralization of a government, and the number of organizations per capita as alternative measures of organization. According to Black, organization shares a direct relationship with law; whereby, the greater the capacity for collective action, the greater the quantity of law.

Law varies directly with private as well as public organization, and with informal as well as formal organization. It varies with the number of groups and with the internal structure of groups. . . . At one extreme is a simple society, such as a tribe of hunters or herdsmen, with little organizational life at all, private or public. Compared to a modern society, people of this kind are groupless. They have no economic organizations, no interest groups or other voluntary associations, no service establishments such as hospitals or schools. . . . People of this kind have little or no law either (Black 1976:91).

Black's discussion is consistent with social disorganization literature in two ways. First, researchers have argued that strong local organizations increase a community's political power by enabling it to effectively lobby for resources, including a strong police force. Second, local agencies—such as churches, schools, and recreational organizations—provide a connection between local residents and police that fosters cooperation and trust, and in turn, should increase police ability to solve the crimes that occur there (Krivo & Peterson 1996:642; Rose & Clear 1998:445). Along these lines, Bursik & Grasmick (1993) use the term “public controls” to refer to networks between a community and outside agencies, including those operated by the criminal justice system. These networks are vital for the health of an area to the extent that they play a role in determining a community's access to public goods and services. Implicit in this argument is the idea that more-organized areas will be in a better position to lobby for and receive higher levels of police resources. Hence, both by fostering better relations between police and residents and by increasing access to economic resources, strong local organizations should increase the capacity of the police to investigate crime. At the aggregate level, both social disorganization literature and Black's arguments suggest that cities with greater collective capacity will have more law—and by extension, higher homicide clearance rates.

Alternative Social Control

Black's final proposition refers to the relationship between alternative social control and the law. For Black, social control refers to mechanisms for responding to deviance (1976:105). In his theory, Black distinguishes between governmental social control, or the law, and nongovernmental social control, including processes such as confrontation, third-party settlement, and negotiation. He hypothesizes an inverse relationship between the two, arguing that law grows “as every other kind of social control dies away—not only in the family, but in the village, church, workplace, and neighborhood” (Black 1976:109). To the extent that alternatives to the law are less available or less accessible, mobilizing the law to manage conflicts will become more likely.

One alternative form of social control that has received considerable analysis using Black's perspective is violence (Cooney 1998; Smith & Uchida 1988; Borg 1999). For Black, aggressive confrontation is an alternative form of social control when it is used in the context of handling disagreements (for thorough discussions of this argument, see Black 1993:chaps. 2 & 5; see also Cooney 1998, 1997:382). Indeed, in many societies, strong cultural norms dictate the use of violence in response to insults over honor and reputation or disagreements over money and prop-

erty. Even where aggression is not explicitly accepted as a means of managing conflicts, the violence that does occur often emerges from conflict situations (Block 1986:3–4; Cooney 1998:see, especially, chap. 1). For example, researchers estimate that between 60% and 80% of homicides annually in the United States are conflict-related. Cooney argues that the percentage is even higher in other modern societies and in simpler and earlier societies as well (1998:5). Examining Black's theory, Cooney draws on a limited number of anthropological and historical cases and discusses the relationship between rates of violence and the strength of the state as an institution of social control. With several caveats Cooney (1998:chaps. 2 & 3), concludes generally that "there is some evidence to suggest that the advent of the state reduces homicide" (58), thereby supporting Black's hypothesis regarding the inverse relationship between the law and alternative mechanisms of social control.

The empirical analysis presented here extends Cooney's work by offering a more-systematic test of Black's hypothesis. Again, Black's theory suggests that insofar as lethal violence represents an alternative social control mechanism,⁶ it should be inversely related to the mobilization of law. Based on this perspective, we use homicide rates as indicative of alternative social control and expect an inverse relationship between city-level homicide rates and city-level homicide clearance rates.

Data and Methods

The units of analysis in our study are cities in the United States with populations of 100,000 or more in 1990.⁷ Although we note that either arrest or clearance rates are indicators of law within Black's framework, we examine clearance rates for several particular reasons. First, clearance rates provide a standardized, case-level measure of police activity that is not confounded by the

⁶ Again, we note that homicides are not always conflict-related. Opportunistic or predatory killings, such as those committed during a robbery or rape, would fall outside of Black's concept of social control. We justify our use of the measure, however, insofar as the vast majority of homicides across the United States are, indeed, conflict-related (Cooney 1998:5). We note also that other aggregate-level analyses of crime data have used homicide rates as a control variable, depending on the theoretical perspective in question. Our approach is to include the homicide rate as an explanatory variable based on theoretical grounds consistent with Black's framework.

⁷ Although we recognize that neighborhoods may be the optimal unit of analysis for examining these effects, we use cities for the following reasons. First, consistent with existing research, our racial residential segregation measure is operationalized using census tract data (see, Messner and Golden 1992; Peterson and Krivo 1993; Parker and McCall 1997). This allows us to examine how racial residential variation in local communities affects the homicide clearance rate in urban(city) areas. Second, using cities as the unit of analysis allows for greater comparability with previous research on rates of crime and violence. Numerous empirical studies have investigated related theoretical arguments in relation to U.S. cities (e.g., Sampson 1985; Messner and Golden 1992; Peterson and Krivo 1993; Shihadeh and Flynn 1996; Parker and McCall 1997; Shihadeh and Maume 1997).

number of offenders involved and/or arrested in any particular homicide case. Although approximately 60% of homicide cases in which the offender is known involve single offenders, a significant proportion, about 40%, involve multiple arrests (Fox 1996). Hence, clearance statistics provide a more-standardized way of measuring police activity across jurisdictions at the case-level (Campbell 1977; Meyer 1994; Mesch & Talmud 1998). Second, homicide cases are sometimes considered cleared even though the police are unable to physically arrest an offender. These “exceptional means” of clearing cases occur when a police investigation results in sufficient evidence to support an arrest, but circumstances prevent officials from doing so. The most common of these circumstances include the death of the offender (i.e., in a murder/suicide or by police fire), the victim’s refusal to cooperate, or the denial of the offender’s extradition from another jurisdiction. Though arrest rates do not reflect police activity in such cases, clearance rates do. In this regard, clearance rates provide a more-accurate reflection of the mobilization of law than do arrest rates. Finally, we note that clearance rates have been interpreted as a measure of law and police activity by others in both the empirical and theoretical literature, and our analysis contributes to this research (Greenberg & Kessler 1982; Cooney 1994; Mesch & Talmud 1998). In fact, Black himself references clearance rates as an outcome of American police systems and notes their basis in social organization (1970:734). Our analysis provides an evaluation of his proposition.⁸

We limit our analysis to *homicide* clearance rates because homicide statistics, in general, are considered the most accurate of any collected by the FBI. Homicides are more likely than other crimes to be reported to the police and also are more likely to be officially recorded by law enforcement (Shihadeh & Flynn 1996:1334). Hence, the homicide counts, and by extension the homicide clearance rates, are subject to a small degree of mea-

⁸ At a conceptual level, we have argued that both arrest and clearance rates are suitable measures of law in accord with Black’s theory. By extension, analytical models using one or the other measure as the dependent variable should find consistent empirical patterns. We provide two results that suggest support for this argument. First, we estimated the bivariate correlation between homicide arrests and homicides cleared for each of the three years of interest in our study. In each set of bivariate analyses, the correlation was .840 or higher (specifically, .858 for 1989 data; .853 for 1990; and .842 for 1991). Secondly, we estimated regression models using arrest rate instead of clearance rate as the dependent variable. The models are largely comparable. That is, in both models, stratification, residential mobility, education/culture, and the total homicide rate are significant. The differences across the models are (1) percent expenditure toward education is significant in the clearance model but not in the arrest model; (2) unemployment is significant in the arrest model but not the clearance model. Interestingly, the r-squared statistic in the arrest model is much higher than what we found in the clearance model (.650 versus .323, respectively). The r-square difference suggests that our model is a more conservative test of Black’s theory as compared to using arrest rates. Aside from their relevance to the issue at hand, these findings are noteworthy in that they provide empirical data regarding the issue of similarity between arrest and clearance data for homicide at the city level.

surement error as reported in the *Uniform Crime Reports (UCR)*. Additionally, because of the significance of homicides, police in every jurisdiction should be expected to expend more resources to clear them compared to other crimes, such as car theft. Still, police success, as reflected in clearance rates, varies significantly across urban areas, suggesting the influence of other (social) factors, such as those proposed by Black.

Dependent Variable

We calculated the homicide clearance rate for each city as the number of homicides cleared by an arrest divided by the total number of homicides known to the police. City-level homicide clearance rates are not published in the FBI's yearly compilation of crime data, but the information for computing them is available by special request. Following acceptable procedure for structural-level analysis, each city's 1990 homicide clearance rate is calculated as its average rate over a three-year period (1989–1991). This methodology minimizes the impact of yearly fluctuations in the data and increases the reliability of city-level estimates (Messner & Golden 1992; Krivo & Peterson 1996; Shihadeh & Flynn 1996; Parker & McCall 1997, 1999).⁹

Independent Variables

The data for operationalizing our measures of stratification, morphology, culture, organization, and other social control were obtained from the U.S. Bureau of the Census *1990 Population Characteristics*, the *City and County Data Book* published in 1994, and the FBI's *Uniform Crime Report (UCR)*. All indicators are measured based on 1990 data. Measures from the U.S. Census population database include: racial residential segregation, three measures of racial inequality (education, income, and unemployment), the percentage of unemployed persons, the percentage

⁹ In some instances, information on the number of homicide cases cleared by arrest was missing for one or more of the three years (1989–1991) of interest in this study. One year of clearance data was available for five cities: Irvine, CA; Tampa, FL; Louisville, KY; Worcester, MA; and Livonia, MI. In 40 cities, clearance data were available for two of the three study years. A list of these is available upon request of the second author. Data were missing for all three years in only three cities: Chattanooga, TN; Lowell, MA; and Wichita, KS. As a precautionary measure, we analyzed two regression models. The first included the five cases where the homicide clearance rate was based on one year of data, and the second model was restricted to those cases with at least two years of data. No differences in the magnitude and/or strength of the parameter estimates were found between the two sets of analyses. We also tested to determine whether this method (that is, including rates based on fewer years for some observations/cities while not for other observations) had any methodological consequences for our regression analyses. Specifically, we computed a dummy variable, where a city with less than three years of data was coded as 1 and all other cities (cities with data for all 3 years of data being used in the calculation of the rate) was coded as zero. This dummy variable was not statistically significant, indicating that differences in rates did not impact our overall results. Hence, the models we present include all cities with at least one year of clearance data.

of those divorced, residential mobility, the percentage of persons with a high school degree or higher, and population size. Measures from the *City and County Data Book* include: the percentage of a city's expenditures toward education, public welfare, and policing during the years 1990–1991, and the percentage of vacant housing units. Finally, *UCR* data were used to calculate an average homicide rate for each city (1989–1991). Here, we provide the operational computations of these measures.

We operationalize stratification with four measures: (1) the ratio of white to black educational attainment for individuals age 25 and older, (2) the ratio of white household income to black household income, (3) the ratio of the white to black unemployment rate, and (4) an index of racial residential segregation. The three ratio measures are typically offered as indicators of racial inequality and indicate the overall extent of racial disparity and stratification in income, education, and employment opportunities among blacks and whites in American cities (e.g., Messner & Golden 1992; Parker & McCall 1999). Racial residential segregation has been used in previous research to indicate a particularly entrenched form of inequality that isolates members of minority groups and contributes to their economic, social, and political disadvantage (see, i.e., Massey & Denton 1988; Massey & Eggers 1990; Messner & Golden 1992). We measure racial residential segregation with the index of dissimilarity. This index is an indicator of unevenness in the distribution between black and white racial groups across census tracts within a city (Massey & Denton 1988; Peterson & Krivo 1993; Parker & McCall 1999) and is one of the most commonly used measures of segregation in aggregate level analyses pertaining to crime (see Shihadeh & Maume 1997). The measure is constructed so that higher values indicate greater levels of stratification.

Next, we use three measures of morphology to indicate participation in family, work, and community: the percentage of divorced persons, the percentage of the unemployed, and residential mobility. The percentage of divorced measure is computed by dividing the number of divorced individuals by the total number of persons 18 years and older. The unemployment measure is calculated by dividing the number of persons not employed by the total number of persons age 16 years and older (excluding those persons currently in the armed forces). Residential mobility is the percentage of individuals who have moved within a city area during the past five years (i.e., since 1985).

Available measures of culture at the aggregate level are rather limited; hence, our analysis in this aspect must be viewed with caution. Based on Black's theoretical arguments, we operationalize culture in terms of the educational attainment of the population in each city. This variable is calculated by dividing the

number of persons with a high school diploma or more by the total number of persons 25 years and older.

Next, we use three measures to operationalize the concept of organization: the percentage of a city's expenditures for education, that for public welfare, and the percentage of vacant housing units within a given city area. As Black suggests, the number of administrative positions, service establishments, and organizations in general measure a group's level of organization. Although general expenditures do not indicate the number of schools or social service organizations that exist in a city, they do suggest the level of support for these organizations, and they thus should differentiate the level of collective capacity across cities. The two expenditure measures reflect the proportion of funds allocated by each city toward education and public welfare during the 1990–1991 budget year. Our third measure of organization is the percentage of vacant housing units within a city. We use this as a proxy measure based on empirical research linking appearances of decay in an area with levels of collective capacity. For example, to the extent that abandoned buildings and vehicles, vacant lots, and graffiti are signs of neighborhood decay that often encourage and facilitate criminal activity, removing them is typically a high priority for community residents (see, e.g., Hartnett & Skogan 1999:6). However, clean-up efforts depend on the cooperation of municipal agencies (Hartnett & Skogan 1999:10), and engaging their involvement is partly a function of a community's political clout. The extent to which residents can protect their communities from these signs of incivility may be viewed, then, as an outcome of the degree to which their communities are sufficiently organized to demand and receive service. Thus, we use the percentage of vacant housing units in a city as a measure of its capacity to organize in order to achieve a collective goal. The variable is computed by dividing the number of housing units identified as vacant by the total number of housing units in a city area. We note the limitations of these measures and the need for future analyses to incorporate alternative indicators of organization, such as the number of business establishments, recreational leagues or fraternal organizations, at the city level.¹⁰

We then calculate our measure of alternative social control from *UCR* homicide data.¹¹ The homicide rate for each city is based on three years of data for the years 1989–1992, and is computed by dividing the total number of homicides by the total

¹⁰ We thank an anonymous reviewer of *Law and Society Review* for these suggestions.

¹¹ We recognize that the extent to which crimes of a certain category are reported to the police may itself be interpreted as a measure of law. In the case of homicide, however, this is largely irrelevant to the extent that all homicides are reported to the police.

number of persons in the population and then multiplying the result by 100,000.¹²

Finally, we include three control variables in the regression model: population size, region, and the percentage of city expenditures to police.¹³ Population size is measured by the total number of residents living in each city in 1990 and is usually included in aggregate models evaluating criminal justice processes. The measure of region is based on Bureau of Census definitions. The variable distinguishes between cities located in the southern region (coded one) and all other cities (coded zero) in order to control for possible structural-level differences (Greenberg & Kessler 1982:776). The percentage of police expenditures measures the proportion of a city's budget allocated for policing in 1990–1991. Including this variable is important since cities that devote more resources toward law enforcement personnel might be expected to have greater success in clearing homicide cases. We control for this measure to evaluate whether the social variables in Black's theory will have a significant impact on homicide clearance rates even after accounting for differences in each city's police expenditures.

Empirical Hypotheses

The following hypotheses summarize the expected empirical relationships between homicide clearance rates and our independent variables, as derived from Black's theoretical concepts and related arguments in the social disorganization literature:

Stratification:

- H_{1a}: As levels of racial disparities in education, employment, and income increase, homicide clearance rates will increase.
- H_{1b}: As racial residential segregation increases, homicide clearance rates will increase.

Morphology:

- H_{2a}: As the percentage of divorced persons decreases, homicide clearance rates will increase.

¹² As with the clearance rate, although to a lesser extent, missing data were present in the UCR homicide counts. In our analysis, the homicide rate is based on one year of data for two cities: Irvine, CA, and Worcester, MA. In 22 additional cases, homicide data were available for two years (information available from second author). Finally, data were missing completely for five cities: Scottsdale, AZ; Irvine, CA; Moreno Valley, CA; Lowell, MA; and Tallahassee, FL. Our model includes all cities with at least one year of homicide data.

¹³ As an alternative, we estimated our models using the number of police per 100,000 population to reflect density of police officers in a given city. Calculated as the number of officers in a city divided by city population size multiplied by 100,000, the variable was not statistically significant and did not substantively change the results of our analysis.

H_{2b}: As the percentage of unemployed persons decreases, homicide clearance rates will increase.

H_{2c}: As rates of residential mobility decrease, homicide clearance rates will increase.

Culture:

H₃: As the percentage of high school graduates increases, homicide clearance rates will increase.

Organization:

H_{4a}: As the level of education and public welfare expenditures increases across cities, homicide clearance rates will increase.

H_{4b}: As the percentage of vacant housing units decreases across cities, homicide clearance rates will increase.

Alternative Social Control:

H₅: As homicide rates decrease across cities, homicide clearance rates will increase.

Method of Analysis

Based on preliminary analysis indicating a nonlinear relationship between population size and the dependent variable, we use the natural logarithmic transformation of the population variable in our OLS regression analysis.¹⁴ The variable measuring the average *UCR* homicide rate is also transformed into its natural logarithmic equivalent in order to reduce its skewness in the model.

Before discussing the descriptive statistics for the sample, a few comments concerning issues of collinearity and partialling among the regressors are warranted.¹⁵ Researchers have long acknowledged the existence of collinearity among the regressors in aggregate level homicide studies. Recent studies suggest that collinearity partly contributes to the inconsistencies found across empirical studies of homicide (Land et al. 1990; Parker et al. 1999). Some researchers, calling for greater substantial invariance in studies of homicide, propose the use of statistical techniques and methodological innovations such as principal components analysis (see Land et al. 1990 for a detailed description).

¹⁴ Since our focus is on evaluating Black's propositions, we constructed our analytical model to reflect his conceptual hypotheses. That is, Black's theoretical model posits non-recursive relationships between each independent variable and the law.

¹⁵ Our examination of the bivariate correlation matrices is not the only test leading us to conclude that multicollinearity is not problematic in this study. As an additional test, we examined the VIF (variance inflation factors) for all the covariates included in the analysis. Based on Fisher and Mason's (1981) discussion of VIF, the value of 4 is the acceptable cutoff point. Overall, based on our examination of initial regression and robust statistical diagnostics, we feel confident in the stability of the regression coefficients, standard errors, and test statistics presented here and that partialling and collinearity are not problematic in this study (see Gordon 1967; Belsely et al. 1980 for details).

Principal components analyses reduce the regressor space and the likelihood of inefficient parameter estimates. Based on initial statistical analysis, we employ principal components analysis in our study. As a result, one dimensional composite was generated. This composite includes the three racial inequality measures—the ratio of white to black median family income, the ratio of white to black educational attainment, and the ratio of black unemployment to white unemployment rates—in addition to the racial residential segregation measure (see Messner & Golden 1992; Parker & McCall 1999). We refer to this dimension as the *racial stratification/segregation index* and use it to reflect stratification as conceptualized by Black.

Results

The univariate statistics in Table 1 indicate a mean homicide clearance rate across the cities in our sample of approximately 75%, which is slightly higher than the national average of 66% (FBI 1997). The racial inequality measures (*stratification*) indicate that black residents in our sample face greater disadvantages in education, income, and unemployment as compared to white residents. Additionally, the index of dissimilarity indicates how highly segregated blacks are from whites via residential location within these cities. The average level of racial residential segregation as measured by the dissimilarity index is slightly greater than 51%, meaning that, on average, approximately one-half of black city residents would have to relocate in order to create an even residential distribution between whites and blacks. Massey and Denton (1993) regard values of this magnitude as indicative of areas that are highly segregated racially. The measures of *morphology* indicate that on average, 10% of the sample cities' populations were divorced in 1990, and 7% were unemployed. The residential mobility variable suggests a significant degree of turnover: an average of 56% of each city's resident population had moved within the past five years (i.e., since 1985). In terms of overall educational attainment, our measure of *culture*, approximately 75% of city residents had achieved at least a high school degree. The organizational capacity variables (*organization*) suggest a greater allocation of resources toward education versus public welfare programs: On average, almost 8% of the cities' budgets were expended toward educational matters, compared to only 1% toward public welfare. The average percentage of vacant housing units across the cities in our model is 8%. Finally, the mean *UCR* homicide rate (*alternative social control*) in the sample indicates approximately 16 homicides for every 100,000 people. Although this is somewhat higher than the national homicide rate in 1990, which stood at 9.4 (FBI 1997:62),

the difference is not unexpected given the greater likelihood of homicide to occur in urban locations versus rural areas.

Table 1 Means of Dependent and Predictor Variables for Homicide Case Clearance Rate Model, circa 1990

Variables	Mean (Standard Deviations)	
Homicide Clearance Rate	0.749	(0.211)
<i>Stratification</i>		
• Ratio of white to black median family income	1.666	(0.395)
• Ratio of white to black median educational attainment	1.039	(0.082)
• Ratio of white unemployment rate to black unemployment rate	2.357	(0.811)
• Racial residential segregation	0.511	(0.182)
<i>Morphology</i>		
• Percentage divorced persons	10.239	(1.849)
• Percentage unemployed persons	7.334	(2.596)
• Residential mobility within 5 years	56.497	(6.280)
<i>Culture</i>		
• Percentage of persons with high school degree	75.177	(8.833)
<i>Organization</i>		
• Percentage of city's expenditure toward education	7.844	(16.637)
• Percentage of city's expenditure toward public welfare	1.334	(2.999)
• Percentage of vacant housing units	8.434	(3.304)
<i>Alternative Social Control</i>		
• UCR homicide rate	15.817	(13.709)
<i>Control Measures</i>		
• Population size (log)	12.351	(0.763)
• Percentage of city's expenditure toward police force	14.098	(5.842)
• South	0.357	(0.481)
N = 157		

Stratification

Our first hypothesis predicts that stratification and law will vary together: Cities with greater levels of inequality, indicated by higher scores on the *racial stratification/segregation index*, will have higher clearance rates. Our analysis supports this hypothesis. The results in Table 2 suggest that police are more likely to solve homicide cases in cities that have greater disparities in unemployment, educational attainment, and income between white and black residents, and where racial residential segregation is more pronounced. This result is consistent with Black's hypothesis that settings characterized by greater inequality will tend to have more governmental social control. At the same time, this finding is inconsistent with the social disorganization literature, which argues that inequality leads socially disorganized areas to have less-efficient social control. For example, such analyses have

demonstrated a link between economic disadvantage and the weakening of *informal* social control mechanisms, such as neighborly surveillance (Sampson 1998). Our results suggest that inequality may not affect formal social control in the same manner. We offer several possible explanations for this finding.

Table 2 Unstandardized (and Standardized) Regression Coefficients for Homicide Clearance Rate Equations, 1990

	Unstandardize Regression Coefficients	Standardized Regression Coefficients	Standard Error	Variance Inflation Factors
Stratification				
Racial stratification/ segregation index	0.032*	0.151	0.017	1.408
Morphology				
Percentage divorced	0.006	0.058	0.009	1.441
Percentage unemployed	0.009	0.111	0.008	1.830
Residential mobility	-0.005*	-0.134	0.003	1.376
Culture				
Percentage of persons with High school degree	0.009***	0.380	0.002	2.045
Organization				
Percentage expenditure for education	0.003**	0.197	0.001	2.224
Percentage expenditure for public welfare	0.004	0.054	0.006	1.470
Percentage vacant houses	-0.002	-0.023	0.005	1.505
Alternative Social Control				
UCR homicide rate	-0.005***	-0.337	0.002	2.102
Control Measures				
Population size (log)	-0.025	-0.089	0.022	1.310
Percentage expenditure toward police force	0.004	0.117	0.004	2.195
South	0.050	0.115	0.036	1.441
intercept	1.242			
$R^2 = 0.323$				
$N = 157$				

* $p < 0.10$

** $p < 0.05$

*** $p < 0.01$

First, to the extent that areas marked by higher levels of inequality tend to have higher rates of homicide, police in these areas may have more experience investigating homicide cases and perhaps may be more efficient in clearing them, with or without the cooperation of local residents. Second, the greater likelihood of police to make homicide arrests in cities with greater disparities between whites and blacks may be an outcome of the types of homicide cases that occur in such areas. For example, Parker and McCall (1999) have demonstrated that inequality increases the likelihood of homicides involving black offenders and white victims. In light of research indicating that homicides involving

white victims generate a stronger reaction from the criminal justice system (Baldus et al. 1990; Radelet & Pierce 1991; Cooney 1994; Baldus & Woodworth 1998), higher clearance rates would be expected. Finally, the level of aggregation used in our analysis may be masking systematic differences in homicide clearance rates across smaller areas within these cities. That is, one outcome of high levels of inequality within cities is the coexistence of wealthier neighborhoods alongside those marked by poverty, unemployment, and other forms of disadvantage. Homicides occurring in wealthier areas may be expected to receive significant police attention, given their greater likelihood of involving higher-status victims (Cooney 1994). Higher clearance rates would be expected within such localized areas and would contribute to the overall city-level clearance rate. Although our analysis does not allow us to evaluate these alternative explanations, future research may pursue such arguments by examining clearance rates for different types of homicide as well as variations in clearance rates across different areas within cities.

Morphology

Our second set of hypotheses predicts a direct relationship between morphology, or participation in social life, and homicide clearance rates. Given our measures, we expect that cities marked by lower rates of divorce, unemployment, and mobility will have higher clearance rates for homicide cases. Among the three morphology measures in our model, only one shares a significant relationship with clearance rates. In cities with more stable populations, the ability of the police to make arrests in homicide cases appears to be greater. This pattern may be a consequence of a greater willingness on the part of long-time residents to become involved in police investigations. Furthermore, offenders' identities are more likely to be known in areas with stable residency patterns. In such areas, police should be expected to have greater ability to conduct investigations, gain cooperation from residents, and locate and arrest offenders.

Although residential mobility is a significant predictor of clearance rates, levels of divorce and unemployment are not. This is contrary to Black's argument that groups with more-integrated members—as measured through participation in marriage and the workforce—will be more likely to mobilize the police compared to groups with less-integrated members. The non-significant result for these two variables is consistent with other empirical analyses of Black's theory conducted at the individual level. Doyle and Luckenbill (1991), for example, failed to find a relationship between individuals' marital or employment status and their likelihood of contacting the police regarding a community problem. Myers's (1980) structural-level analysis of Black's

theory also failed to support the proposed relationship between morphology and governmental social control, although her model used different measures of morphology. Insofar as family living arrangements have changed significantly in the United States, particularly with regard to the rise of cohabitation, our use of divorce to measure Black's concept of integration may be somewhat strained. More specific measures of social participation from the family dimension may in fact be related to the mobilization of law as Black hypothesizes.

The lack of a significant relationship between homicide clearance rates and either divorce or unemployment is contrary to the social disorganization literature as well, which suggests that higher divorce and unemployment contribute to the weakening of informal social control systems. We note that our results suggest that these variables may not influence formal social control efforts in the same manner, a conclusion consistent with the findings regarding the stratification variables previously discussed and a point to which we return later in our discussion.

Culture

Hypothesis three predicts a direct relationship between culture and the mobilization of law: As the proportion of city residents with at least a high school degree increases, clearance rates for homicide cases will increase. Our data support this relationship. In fact, of all the variables in the model, the education variable shares one of the strongest relationships with homicide clearance rates ($\beta = 0.38$). This result is consistent with Black's argument that the mobilization of law increases as the cultural status of a group or area increases. The pattern may reflect a greater willingness by more-educated individuals to involve themselves in police investigations as witnesses, and also greater attention by law enforcement to investigate homicides that occur in cities with a greater proportion of more-educated residents. Insofar as education is one measure of social status, this pattern is consistent with arguments in the literature that the quantity and quality of evidence collected in legal cases increases with the status of victims, that individuals with higher social status are more likely to mobilize the law in response to conflict, and that witnesses are more likely to come forward to support victims of higher-status (Cooney 1994; see also Black 1980). Even though the results here offer support for Black's proposition, additional analyses using alternative measures of culture would provide further insight and evaluation of his argument at the aggregate level.

Organization

The fourth set of hypotheses predicts a relationship between the organizational capacity of cities and their homicide clearance rates: Cities with greater expenditures for education and public welfare and with lower proportions of vacant homes will have higher homicide clearance rates. Our model only partially supports these hypotheses. Of the three measures of organizational capacity, only education expenditures shares a significant relationship with clearance rates: Cities that devote a greater proportion of their budgets to education tend to have higher clearance rates for homicide cases.

These mixed results are not unexpected given the difficulty in operationalizing organizational capacity at the city-level. In fact, few analyses have attempted to incorporate such measures in models investigating factors that influence the efficacy of social control in urban areas, even though the concept is theoretically relevant. Given its importance both to Black's theoretical perspective and in other frameworks, future analyses should continue to address the relationship by conceptualizing and incorporating alternative measures of organizational capacity. In this regard, Garofalo and McLeod's (1989) research suggests the importance of examining local associations with a multipurpose orientation and an emphasis on noncrime related matters. They argue that such organizations tend to play a more-permanent and active role within a community compared to those that are created for the sole purpose of crime control, such as some neighborhood watch programs. The results in our model regarding educational expenditures are consistent with that argument, insofar as this indicator measures collective attention directed toward a noncrime-related issue. Other possible measures of collective capacity might be the presence of fraternal associations; the existence of formal links between the police and other local institutions, such as schools, religious groups, or voluntary associations; or the extent of residents' involvement in local politics.

Alternative Social Control

The fifth hypothesis predicts an inverse relationship between law and alternative social control, measured in our model by the *UCR* homicide rate. As expected, cities with lower homicide rates tend to have higher homicide clearance rates. This relationship is one of the two strongest in the model ($\beta = -0.34$) and is significant even after controlling for the portion of a city's budget expended toward policing. This result supports Black's argument that confrontational forms of conflict management will be more prevalent in settings where law is unavailable or used less often to manage conflict. It is also consistent with descriptive studies of

the state of relations between police and members of lower-status communities. Rather than perceiving law enforcement as a help, members of lower-status and minority areas more often view police with hostility and as abusive and heavy-handed (Shakur 1993; Canada 1995; Marshall & Wheeler 1996:78; Cooney 1998). Furthermore, compared to their interaction with residents of wealthier communities, research suggests that police and other legal officials are sometimes less-responsive to the affairs of lower-status groups (Feeley 1979; Black 1980; McBarnet 1981). As a result of their aversion or inability to enlist the law when disagreements arise, "low-status groups often develop an ethic of honor that encourages aggressive responses to insults and offenses" (Cooney 1997:394; see also Anderson 1990; Cooney 1998). Hence, "because law is relatively unavailable to lower-status groups, they cannot rely on it to settle their disputes and so homicide comes to fill some of the void left by its absence" (Cooney 1997:395). If this ethic extends to a reluctance to assist police in homicide investigations, lower clearance rates would be a likely outcome. Although this analysis does not distinguish among types of homicide cases, future studies might address whether higher levels of conflict-related homicides, in particular, are associated with lower clearance rates. In addition, using other measures of alternative social control, such as the presence of community mediation centers, gun-ownership rates, or the use of mental health facilities, would provide further opportunities to evaluate Black's hypothesis regarding alternative social control and the law.

Discussion and Conclusions

This research has examined the utility of Black's theory of law for understanding variation in homicide clearance rates across urban areas. The empirical results suggest support for the argument that economic, social, cultural, organizational, and normative factors in urban areas influence the likelihood of police to clear homicide cases at the aggregate (city) level. Insofar as clearance rates have not been empirically examined in this way, our analysis is suggestive and raises important issues for further investigation. To the extent that our primary intent has been to open and encourage such a dialogue in this area, we conclude by discussing several implications of our study and the directions for future analyses they suggest.

Our incorporation of Black's theory with social disorganization literature demonstrates the importance of studying both formal and informal processes of social control as they are affected by such structural factors as inequality, segregation, mobility, and collective capacity. Taken within the context of previous studies, our results indicate that such factors may not influence formal

social control mechanisms in the same manner as they impact those of an informal nature. In particular, our analysis suggests that factors that hinder informal social control mechanisms from effectively preventing criminal activity may, in contrast, be associated with the efficiency of formal social control systems to respond to this activity. For instance, previous empirical studies indicate that high levels of inequality impede informal social control in urban areas and thereby lead to higher rates of crime, including homicide. At the same time, our analysis indicates that when homicides do occur, their likelihood of being cleared is greater in more stratified urban locations. These patterns not only suggest the differential *direct* effects of inequality on informal and formal social control, but, to the extent that informal and formal processes are related, the results also underscore the importance of examining *indirect* effects among structural factors and social control processes. For example, the *direct* impact of inequality on homicide clearance rates may be positive, perhaps as a consequence of a larger or more experienced police force. At the same time, inequality may reduce clearance rates *indirectly* through the higher rates of homicide it encourages. Future analyses modeling the direct and indirect links among structural conditions and both informal and formal processes of social control will build on the analysis here and contribute to a greater understanding of these complex relationships.

Along similar lines, future analyses might also explore the interactions among different structural variables with regard to their effect on clearance rates, particularly across different levels of aggregation. For instance, in cities that exhibit high levels of inequality, the highest clearance rates might be found within wealthier neighborhoods that have stronger informal mechanisms of social control. This effect would be consistent with Black's larger argument regarding stratification and law. He hypothesizes, in addition to inequality, that relative wealth will predict levels of law, with wealthier groups more likely to mobilize law compared to their less wealthy counterparts. Further analyses examining such relationships at different levels of aggregation would address the issue of how conditions in the larger urban environment interact with those in more localized neighborhoods, thereby providing a more comprehensive picture of the dynamics involved in community-level processes of social control.

Our analysis also suggests the importance of examining variation in homicide clearance rates disaggregated by the status of victims and offenders and by the nature of the relationship between them. As noted earlier, Black's theory—particularly as it has evolved since *The Behavior of Law*—gives every reason to expect that clearance rates for different types of homicide will vary according to such factors. To the extent that victims and offenders of different economic, cultural, and social status will attract

different levels of official police investigation and a variable number of witnesses willing to assist with investigations (Cooney 1994), we should expect differences in clearance rates depending on the status of victims and offenders involved in a particular case. In addition, the context leading to homicide may also influence its likelihood of being cleared. Stranger homicides, for example, may be more difficult to resolve compared to those involving intimates or acquaintances. An examination of disaggregated clearance data and use of the case as the analytical unit may provide researchers further insights to the relationships between the mobilization of law and each of the five aspects of social life specified in Black's more recent theoretical propositions (1995).

Indeed, the social disorganization perspective also supports this line of inquiry. For example, many of the social disorganization studies discussed here suggest that differences in crime rates by racial groups are due to the social and ecological structure in which these groups find themselves. Whites and blacks reside in urban communities that are ecologically and economically very different: therefore, they face different social and economic realities (e.g., Wilson 1987; Sampson & Wilson 1995). For instance, studies of criminal offending reveal that homicide is the leading cause of death among young black men, and approximately 80% to 90% of these cases involve a black victim killed by a black offender (O'Brien 1987; LaFree et al. 1992). Current efforts to explain the racial variations in lethal violence reveal that structural conditions in urban areas are pivotal to understanding the unique violent offending patterns for various racial groups (Messner & Golden 1992; Sampson & Wilson 1995; Krivo & Peterson 1996; Shihadeh & Flynn 1996; Parker & McCall 1997). In similar fashion, an examination of the impact of these structural conditions on homicide clearance rates disaggregated by race may contribute significantly to our understanding of urban areas, particularly racial differences in the mobilization of law.

Future analyses may extend our arguments in other directions as well. Alternative theoretical models, such as a resource saturation perspective (Michalowski & Pearson 1990; Jacobs & Helms 1996), may contribute additional insights into the relationships among the variables discussed here. Such research has argued that arrest probabilities, and by extension clearance rates, are a function of caseload pressure and crime itself. That is, higher homicide rates may lead to lower homicide clearance rates due to case overload and an overburdened police force. Although Black's theory suggests the same empirical pattern, his explanation for the relationship differs. Without more specific data, drawing a conclusion in this regard is difficult. Detailed information that delineates between conflict-related homicides versus predatory or opportunistic homicides would provide a more direct test of Black's hypothesis regarding alternative social con-

trol (as measured by homicide rates) and the law, and hence may help to evaluate the merits of his theoretical explanation versus a system capacity argument. Alternatively, analyses that isolate areas with particularly high and low clearance rates, but that have similar resource capacity and similarly high homicide rates, may be instructive in identifying other factors that play a role in resolving (or failing to resolve) homicides. A qualitative approach may provide insight into the culture of police departments that are more or less successful at clearing homicides in areas that are faced with similar rates of lethal violence. More generally, in the future, researchers may expand our analytical focus to examine clearance rates of other index crimes, such as motor vehicle theft or robbery rates; their doing so may uncover differences regarding the impact of the social variables specified in Black's framework, or in alternative theories, on the clearance rates of property as compared to violent crimes.

Finally, we note that our macrolevel application of Black's theory offers support for his hypotheses, particularly with regard to stratification, culture, and alternative social control. That is, homicide clearance rates were highest in cities marked by greater racial disparities in education, income, employment, and residence; by higher levels of educational attainment; and by lower rates of homicide. Results with regard to integration (morphology) and organizational capacity were less consistent, but offer some support for his arguments as well. In particular, greater residential stability and higher expenditures for educational programs were each associated with higher clearance levels, as Black's theory predicts. Results here demonstrate the validity of Black's framework at a different level of aggregation than most prior empirical analyses and should encourage continued work in this regard. Previous studies, as well as our own, recognize the difficulty in operationalizing some of the concepts in Black's theory, particularly at the aggregate level. Indeed, some of the inconsistent findings in our own analysis may be a consequence of the measures used, rather than evidence of the theory's lack of validity.

On the other hand, mixed results may also indicate the need for greater specification of Black's propositions. It is certainly possible that the multiple dimensions of each concept identified in his theory are not all relevant to every process of law, at every stage, or at every level of aggregation (see Greenberg 1983:357–58). For instance, we found support for the proposed relationship between law and morphology, as measured by residential mobility, but not as indicated by divorce rates. The results suggest that population turnover may be a more immediate and consequential factor affecting police investigations and clearance activity, particularly at the city level. Other analyses may find that divorce rates, unemployment, or other measures of integration

are more relevant for explaining homicide clearance rates within smaller analytical units, such as neighborhoods. Additionally, the impact of all of these factors on arrest rates, rather than on clearance rates, across urban areas should be examined. Such models may be particularly useful for examining crimes involving multiple rather than single offenders insofar as clearance statistics do not account for multiple arrests in a single criminal event. To the extent that Black fails to offer in-depth explanations for the general relationships he proposes, researchers may find it useful to integrate other theoretical perspectives, such as social disorganization, to gain insight into the most appropriate measures of each theoretical concept for a given level of analysis. Using such complementary theories may ultimately lead to better specified models, both at the theoretical and the empirical level.

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