



E-ISSN 2332-886X

Available online at

<https://ccjls.scholasticahq.com/>

Are You Judged by the Residence You Keep? Homicide Sentencing, Attribution and Neighborhood Context

Kathleen Auerhahn,^a Jaime S. Henderson,^b Patrick R. McConnell,^c and Brian Lockwood^d

^a Temple University

^b First Judicial District, Pennsylvania

^c CSRA

^d Monmouth University

ABSTRACT AND ARTICLE INFORMATION

This article investigates the effects of neighborhood residential context on sentencing outcomes for homicide defendants (N=636) in a large U.S. city and presents a theoretical model of judges' place-based attributions about sentencing homicide defendants in an urban context. Defendants residing in neighborhoods characterized by a higher degree of disadvantage received more lenient sentences, a finding that is consistent with Cooney and Burt's (2008) work regarding the effects of the geographic prevalence of homicide on sanctioning. These results support the use of offense-specific theoretical models and analyses of sanctioning and adjudication outcomes, as well as more broad-based consideration of the nature of spatial effects in sociological and criminological research.

Article History:

Received 2 April 2015

Received in revised form 15 July 2015

Accepted 30 July 2015

Keywords:

neighborhoods, sentencing, homicide, attribution, focal concerns

Scores of empirical studies have investigated the nature and sources of extralegal variation in sentencing outcomes. Though much of this research has demonstrated that despite improvements resulting from attempts to constrain discretion through guidelines, substantial variation in sentences imposed on criminal defendants that is not explained by legally relevant factors persists in American courts.

The current study contributes to the research literature on criminal sanctioning by addressing heretofore unexamined empirical questions concerning variation in the sentencing of homicide defendants. Specifically, this research investigates the

manner in which the social and cultural geography of the defendant's residence may exert influence on the sentencing of defendants in homicide cases in a contemporary American urban jurisdiction. We examined variation in sentence severity among a sample of 636 defendants convicted of criminal homicide in Philadelphia, Pennsylvania and sentenced to a variable term of incarceration. Controlling for empirically relevant legal and extralegal factors, we found a small but significant effect of characteristics of the defendant's neighborhood of residence on sentence severity, with this effect resulting in significantly shorter sentences for defendants residing

in more disadvantaged neighborhoods. This article also develops a theoretical explanation of the ways in which characteristics of homicide defendants' neighborhoods of residence may influence criminal sentencing via processes of attribution.

We submit that the study of sentencing processes and outcomes, as well as the development of theories to explain them, should be undertaken in an offense-specific context. There are important methodological issues that are addressed by disaggregating studies of adjudication outcomes by offense type. Most research on sentencing makes use of mixed-offense samples, in which homicides generally account for fewer than 2% of dispositions. When using a heterogeneous sample of defendants, common crimes will dominate the data. Property crimes outnumber violent crimes by a factor of at least seven to one in the United States; examination of crime statistics indicates that there are roughly five times more larceny-theft cases known to the police each year than all violent crimes combined (Maguire, 2012). Whatever patterns of disparity emerge in the sentencing of the offenses most commonly represented in the data will drive the results and may not provide an accurate picture of disparities for less common crimes (McCarthy & Lindquist, 1984; see also Blumstein, 1982; Kelly, 1976). Support for examining extralegal variation in sentence severity in an offense-specific context is found in research examining the incarceration decision. Several studies have reported different patterns of racial disparity in the decision to incarcerate by conviction offense, with less serious offenses (particularly drug offenses) exhibiting racial and ethnic disparity, while these studies find that race/ethnicity exhibits no significant influence on the decision to incarcerate for more serious, violent offenses (Spohn & Cederblom, 1991; Steffensmeier & Demuth, 2000, 2001; Warren, Chiricos, & Bales, 2012; see also Blumstein, 1982).

Disaggregating studies of adjudication outcomes by crime type also allows us to examine theoretical questions linking criminal behavior and sanctions with greater specificity (e.g. Steen, Engen, & Gainey, 2005). Offense severity controls fail to capture qualitative differences between offenses; although robbery, rape, and homicide are all serious offenses, they differ enormously in terms of the emotional responses they elicit, which may in turn have consequences for sanctioning. Criminal sanctioning is society's formalized, codified response to transgressions against the body social (Durkheim, 1895; Garland, 2001, 2005). Different transgressions produce different types of harms—different violations of the social fabric (e.g. violations against trust, integrity, or physical safety). Some violations represent threats to the normative order (theft, vandalism) while others threaten more deeply crucial

norms, such as those prohibiting violence. It is widely accepted that societal responses to deviance are historically and culturally specific (Black, 1998; Cooney, 2009; Garland, 2001, 2005; Holmes & Antell, 2001; Savelsberg, 2002). Similarly, the development of theoretical explanations that aim to explain variability in sentencing outcomes might benefit from circumscribing application to particular forms of criminal conduct. Numerous scholars have also demonstrated that specific theoretical explanations are useful for explaining different types of criminal behavior (e.g. Collins, 2008; Lee, 2000; Peterson & Krivo, 2010). For this reason, we argue that analyses of sentence severity should be confined to similar offenses, particularly when those analyses rely on social-psychological frameworks of interpretation such as attribution theory.

Steen and colleagues (2005) offer a compelling argument for the importance of the conception of normal crimes in analyses of the ways in which defendant characteristics influence adjudication and sentencing, supporting the analysis of these outcomes in an offense-specific context:

Broad cultural stereotypes linking the propensity to criminality with race or ethnicity (or even to combinations of race-ethnicity, sex, and age) are too vague and imprecise to account for decision making at the local level. Rather, the stereotypes that are most useful are complex *offense-specific* constellations of both offender characteristics and characteristics of the crime.... Although it is likely that they are influenced by global cultural stereotypes about race-ethnicity, the stereotypes most relevant to day-to-day case processing are those about specific types of cases, not particular kinds of people (Steen et al., 2005, p. 439; italics added).

The assumption that the mechanisms that influence and drive decision makers via processes of attribution operate in identical ways across qualitatively different offense types is usually implicit in research on sentencing. This premise, however, has been subjected to limited empirical inquiry, particularly with respect to the analysis of sentence severity. It remains unknown to what degree "the nature of the deviance" influences these processes (Cooney & Burt, 2008, p. 520). The results of this analysis and their divergence from similar research indicate that we might learn a great deal more about the decision-making processes of sentencing officials by exploring the possibility that it does.

Literature Review

Theoretical Synthesis

Theoretical explanations for disparities in sentencing that result from factors which are not legally relevant generally incorporate three major concepts: *discretion*, or the recognition that the criminal justice system is populated by individual actors who are tasked with making decisions in a structured, but not fully determined, environment; *uncertainty*, in that the sanctioning authority cannot be certain that the goals of sentencing (whether these be public safety, rehabilitation, or another purpose) will be achieved; and *attribution*.

Attribution theory was originated by Fritz Heider (1958) to describe the process by which individuals ascribe “transient and variable behavior and events to relatively unchanging underlying conditions, the so-called dispositional properties” of people and places (p. 80). Attribution theory is frequently invoked in explanations of the patterned relationships between extralegal factors and sentencing decisions observed in studies of sentencing disparity as a mechanism for the mitigation of uncertainty (Albonetti, 1991; Auerhahn, 2007; Bernstein, Kelly, & Doyle, 1977; Farrell & Holmes, 1991; Steffensmeier, Ulmer, & Kramer, 1998; Wooldredge & Thistlethwaite, 2004). In the organizational environment of the criminal courts, patterned and mutually shared attributions result in the formation of criminal imagery or stereotypes about “normal crimes” and “normal criminals” that have been shown to influence sentencing outcomes (Auerhahn, 2007; Bontrager, Bales, & Chiricos, 2005; Farrell & Holmes, 1991; Steen et al., 2005; Steffensmeier et al., 1998; Sudnow, 1965). In the criminal justice system, organizational imperatives encourage cognitive “short cuts” such as “normal crimes” and “going rates” (Nardulli, Eistenstein, & Flemming, 1988; Sudnow, 1965), in order to facilitate and speed case processing (Albonetti, 1991; Myers, 1980).

The *focal concerns* perspective proposed by Steffensmeier (1980), and further developed with colleagues over the past several decades (e.g. Steffensmeier & Demuth, 2006; Steffensmeier et al., 1998), features prominently in contemporary studies of sentencing outcomes. This perspective posits that three general considerations guide the decision-making process of sentencing judges. These are *blameworthiness*, or the culpability of and harm done by the offender; *community protection*, or the responsibility of the judicial system to limit further harm to society from this offender; and *practical considerations*. Practical considerations include bureaucratic and organizational issues such as case

flow and facility crowding, as well as considerations relating to individual defendants (such as disruption of family relationships and the defendant’s “ability to do time” (see also Huebner & Bynum, 2006, 2008; Ulmer, Kurlychek & Kramer, 2007 for applications of focal concerns to other criminal justice decision points).

In most cases, the information required to fully evaluate all three focal concerns is unknown (and perhaps unknowable). The blameworthiness of the defendant is at best a subjective determination, and the need to serve public safety by applying the “correct” sentence is a calculation fraught with predictions and assumptions. As the authors of one study noted, “focal concerns are interrelated, but judges often do not have complete information on each. Consequently, to reduce uncertainty, judges rely on attributions linked to the defendant such as race and social class” (Lieber & Blowers, 2003, p.467). These attributions, or “perceptual shorthand,” consist of patterned and mutually shared imagery or stereotypes about “normal crimes” and “normal criminals” that have been shown to influence criminal justice processing and outcomes in a variety of contexts (Auerhahn, 2007; Bridges & Steen, 1998; Farrell & Holmes, 1991; Frohmann, 1997; Steen et al., 2005; Steffensmeier et al., 1998; Sudnow, 1965; Wooldredge & Thistlethwaite, 2004). As the authors of one study noted, “the administration of justice is an interpretive process.... Dispositions are a product of the applicability of ... criminal imagery” (Farrell & Swigert, 1978, pp.555, 573).

The urban spatial environment is a social signifier that influences perceptions of those who live and spend time there. Neighborhood of residence can be a powerful social “marker” that identifies an individual as having certain characteristics, values, and status (Gregory, 1979; Hallman, 1984; Harvey, 1989; Keller, 1968; Soja, 1989) that may influence the operationalization of focal concerns relevant to sentencing. Some research suggests that neighborhood context is influential in a variety of aspects of criminal justice decision making, including police activities (Black, 1970; Smith, 1986; Werthman & Piliavin, 1967) and the decision to prosecute criminal cases (Frohmann, 1997).

In sociological research, the effects of neighborhood context are usually conceived of in terms of the ways in which the environmental context influences the behavior of neighborhood residents or visitors (e.g. Anderson, 1999; Clairmont & Magill, 1974; Kelling & Wilson, 1982; Stewart & Simons, 2009; Wilson, 1987, 1996). There is comparatively little research on the effects of what George Galster calls “extra-neighborhood” processes, or the behavior of “key actors who do not reside in the given neighborhood, but may, nevertheless, form strong

perceptions and attitudes regarding the place *and those who reside there*" (2003, p.899; emphasis added). It is this orientation that we adopt in our consideration of the impact that characteristics of the residential environment of the defendant may have on sanctioning decisions in urban homicide cases. There is good reason to believe that extra-neighborhood processes and impressions (Galster, 2003) are formed in much the same way that they are for neighborhood residents—particularly in the case of long-time city residents, who form images and “cognitive maps” of the urban environments in which they reside (Lynch, 1960; Suttles, 1972).

The address of the defendant is available to the sentencing judge in the court documents at his or her disposal during adjudication. The Philadelphia criminal judiciary is specialized, with a limited number of senior judges assigned as “homicide judges” (First Judicial District, 2008). An address location is a meaningful piece of information for a city resident, and may in fact be *more* richly meaningful than an established “neighborhood” designation. Given the requirement that judges reside within the city limits,¹ as well as the relatively long tenure on the bench that characterizes judges hearing homicide cases, it is reasonable to expect that sentencing judges will have impressions, or “cognitive maps” (Suttles, 1972), of different areas of the city, as well as of the characteristics and circumstances of a “normal” homicide case. It is reasonable to expect judges in Philadelphia to be familiar with, and have formed opinions about, the characteristics and qualities of different parts of the city in which they reside (and have likely resided for quite some time, given the senior status of homicide judges in the Philadelphia judiciary), both as a result of their lived experiences and their experience on the bench (see Ulmer, 1997, p. 98-100).

Like many crimes, homicide is not randomly distributed across the urban landscape. Areas with high concentrations of homicide are likely to feature high concentrations of other crime types as well (see Baller et al., 2001; Boggs, 1965; Cubbin, Pickle, & Fingerhut, 2000; Morenoff, Sampson, & Raudenbush, 2001; Rose, 1978). Homicide location clusters also tend to be stable over time (Cohen & Tita, 1999; Griffiths & Chavez, 2004; Messner et al., 1999; Weisburd, Bushway, Lum, & Yang, 2004). In the data used in this analysis, more than 60% of homicides occur in eight of the city’s 25 police districts, or one-third of the districts; more than 80% of Philadelphia’s homicides occur in just half of the districts. This spatial patterning makes it quite likely that sentencing judges in homicide cases will be familiar with and have impressions and opinions about the locations in which homicides commonly take place, as well as

those in which defendants (and victims) disproportionately reside, which exhibit considerable overlap. Our analysis focuses on the residence location of the defendant because in the two theoretical frameworks that guide this analysis, attribution theory and focal concerns, it is the *defendant* rather than the *homicide event* that is the salient input influencing sentencing decisions and outcomes.

Neighborhood Context and Sentence Severity

The effect of neighborhood context on sentence severity among homicide defendants could manifest in one of two ways. In the first of these scenarios, defendants residing in more disadvantaged areas would be expected to receive more severe sanctions. This could be explained with reference to the focal concern of community protection, whereby sentencing authorities incorporate the information regarding a defendant’s residence and conclude that this environment increases the likelihood of reoffending. In this relationship, residence in a disadvantaged neighborhood invokes perceptual shorthand “of images or attributions relating these statuses to membership in social groups thought to be dangerous and crime prone” (Steffensmeier et al., 1998, p. 768). Indeed, such a relationship has been observed in recent research on criminal justice decision making. Wooldredge (2007) examined the relationship between neighborhood characteristics and the imprisonment decision, as well as sentence severity, in a sample of nearly 3,000 African American and White felony defendants in 24 counties in Ohio. Using characteristics of the census tract in which the defendant resided to create a measure of neighborhood disadvantage, Wooldredge found that neighborhood disadvantage was unrelated to sentence severity but that it significantly influenced the imprisonment decision such that defendants living within census tracts characterized by high levels of disadvantage were more likely to receive a prison sentence (Wooldredge, 2007). Wooldredge and Thistlethwaite (2004) examined the impact of features of the defendant’s neighborhood of residence on five case processing outcomes (charging, prosecution, conviction, incarceration, and sentence severity) in cases of misdemeanor intimate assault in Ohio. Neighborhood characteristics influenced criminal justice processing for misdemeanor intimate assault defendants in a complex fashion, registering different effects at different decision points. Specifically, defendants from highly disadvantaged neighborhoods were *less* likely to be formally charged in cases of intimate assault (see also Cooney & Burt, 2008), but once charged and prosecuted, they were more likely to be convicted and more likely to be incarcerated than

defendants from less disadvantaged neighborhoods. These authors proposed that “stereotyping may actually benefit defendants who fit the more typical profiles of routine offenders...due to caseload demands. Once the pool of defendants has been filtered, both attorneys and judges may see the more stereotypical defendants as higher risks,” invoking the focal concern of *community protection* to explain the greater likelihood of incarceration for defendants from disadvantaged neighborhoods (Wooldredge & Thistlethwaite, 2004, p. 443).

Alternately, defendants residing in more disadvantaged areas might receive leniency at sentencing, relative to defendants residing in comparatively advantaged neighborhoods. Gleaning from Durkheim’s ideas regarding the relationship of sanctioning to the relative frequency of particular forms of deviance (Jones & Scull, 1973; Tiryakian, 1964), Cooney and Burt (2008) have put forth what they term the *prevalence hypothesis*, which states that “across time and place, legal decisions are influenced by the frequency of the behavior that is the subject of the case... the more prevalent deviance is, the less severe the punishment it attracts at the case level” (p. 493). Cooney and Burt (2008) found that defendants convicted of homicide in counties with high rates of homicide received less severe punishment than those who commit homicide in counties where this form of deviance is relatively rare. They explain this finding thusly:

Perhaps legal officials handle homicide leniently [in counties with higher rates of homicide] because they see it as being normative—the expected response to certain insults and injuries. Or perhaps they see it as unexceptional—not normative, but common behavior undeserving of harsh punishment. Or perhaps they see it as beyond public control—not normative or unexceptional, but palliated by virtue of being a product of refractory forces that lie deep within the social body. Or finally, because they see it as less threatening to social order—not normative or unexceptional or beyond control, but something that does not undermine the fabric of society (Cooney & Burt, 2008, p. 521; see also Lundsgaarde, 1977).

The prevalence hypothesis is also consistent theoretically with ideas about the leniency demonstrated by law enforcement personnel in high-crime areas, called “deviance service centers” by some authors (Clairmont & Magill, 1974; see also Stark, 1987). Klinger (1997) suggests that in neighborhoods

characterized by high levels of crime, law enforcement officers will, in the words of Garland (2001), “define deviance down,” essentially intervening in only the most serious offenses in extremely disorganized neighborhoods (see also Browning, Feinberg, & Dietz, 2004; Morenoff et al., 2001). Cooney and Burt also note that although their analysis was performed at the county level, “among the issues awaiting further exploration... are the correct temporal and spatial units of analysis for prevalence... Do sanctions respond to prevalence at the local, regional, or national levels? We know of no *a priori* reason to favor one unit of analysis over another... A theoretical variable... can typically be operationalized at more than one level and still yield significant results” (2008, p.520).

Cooney and Burt’s (2008) findings also provide support for examining sentencing variation in offense-specific analyses. Focal concerns will be operationalized in different ways in different contexts. The focal concern of community protection may be interpreted differently for offenses like larceny and residential burglary, where the potential victims more closely resemble the “broader community” than for an offense like homicide, where offenders and victims exhibit significant sociodemographic overlap (Broidy, Daday, Crandall, Sklar, & Jost, 2006). The assumption that sentencing processes operate similarly for shoplifting and murder is simply not defensible, particularly when the explanation of the outcomes of these processes relies so heavily on an attribution-based theory. Additional evidentiary support for this position is found in research that has specifically investigated homicide. These studies find that the focal concern of “practical considerations” is largely irrelevant in the sanctioning process for these offenders, as incarceration is the outcome in virtually all of these cases (Auerhahn, 2007; Steffensmeier & Demuth, 2006, p.249).

Similar research by Baumer and Martin (2013) examined the influence of social, organizational, and political context on multiple decision points in the processing of homicide defendants at the county level in a multilevel analysis. Using the 1988 BJS Murder Cases in 33 Large Urban Counties data set and measures derived from aggregation of individual-level GSS data from 1984–1988 the same period, these researchers found that sentence length was positively related to levels of fear of crime, social capital, and religious conservatism at the county level. Although the authors posit an alternate explanation (that the causal mechanisms are the measures of organization and community attitudes), these findings do not negate those of Cooney and Burt (2009), in that these community characteristics were also found to correlate inversely with county homicide levels. The present

research represents an advance in understanding the effects of community context that it defines “neighborhood” in a way that more closely reflects the geographic unit of the micro-neighborhood, increasingly seen as more influential on behavioral decision-making than context related to larger geographic units (see Hipp, 2010, 2012; Taylor, 2015).

Methodology

Data

The data were collected at the Office of the Clerk of Quarter Sessions at the Philadelphia Criminal Justice Center by physically examining the paper files on-site and entering relevant data into an SPSS template in order to create a comprehensive and rich dataset containing higher-quality information relevant to an examination of sentencing variability than those contained in existing sources of data. The files contained a variety of data sources, including police incident reports, indictments, sentencing documents, and rarely, pre-sentencing investigations and trial transcripts.

The sampling frame from which the data were selected consists of homicide cases in which the defendant was adjudicated guilty in Philadelphia, Pennsylvania over the period 1995–2000 ($N=1137$). This total includes all defendants convicted of *any* variety of homicide offense. However, the *valid* sampling frame—defendants sentenced to a variable term of incarceration—was 696, of which 636 cases were ultimately included in the analysis.

Pennsylvania statutes recognize three degrees of intentional murder. Killings that are deliberate and premeditated are charged as first degree murder, which carries a mandatory sentence of life or death. Murders committed in the course of an eligible felony (robbery, rape, or deviate sexual intercourse by force or threat of force, arson, burglary, or kidnapping) are charged as second-degree murder, for which life imprisonment is mandated by statute. During the period of study, these guidelines were adhered to rather consistently; 97% of defendants convicted of second degree murder received a life sentence, and 96% of convicted first-degree defendants received either a sentence of life or death (6.2% received a death sentence). There is so little variability in these cases that the conviction charge is, for practical purposes, deterministic of the outcome. For this reason, these cases were excluded from the sampling frame. All other intentional murders are classified as murder in the third degree. Homicides not meeting the standard of intentional murder are characterized as manslaughter. The defendants remaining for analysis

were convicted of third degree murder, voluntary manslaughter, involuntary manslaughter, or homicide by vehicle.

There were 696 cases that met our sample requirements (defendant was sentenced to a variable term of incarceration). As a result of missing data on some of the explanatory variables and the decision to delete cases listwise, there were ultimately 636 cases available for analysis, representing 91.4% of all available cases. The decision to employ listwise deletion was guided by the small amount of missing data and was based on the researchers’ understanding of the process by which data came to be missing. The most common sources of missing data are victim characteristics, which were culled from the police reports in the files available for examination. The failure of reporting officers to provide this information on the police reports is presumed to be unrelated to the causal processes operating in the sentence outcomes under study and therefore ignorable; when this is the case, listwise deletion does not introduce bias (Allison, 2002).

Methods

Ordinary least squares multiple linear regression analysis was used to determine the effects of case processing, legal and extralegal defendant characteristics, and neighborhood characteristics of the defendant’s residence on minimum sentence length. The analysis of sentencing outcomes presented here is limited to those cases in which a variable term of incarceration was imposed at sentencing. In the sample, minimum sentences were approximately normally distributed, so no transformation of the dependent variable was necessary. The method used to estimate environmental characteristics of the defendant’s neighborhood of residence (described in greater detail below) obviates the need for multilevel modeling techniques, so the classical normal linear regression model (Gujarati, 1995) is appropriate here.

Explanatory and control variables were entered into the model in hierarchical fashion. This was done to estimate the relative proportion of variance explained by different sets of variables related in a theoretical or practical way to sentence severity. The first block of variables was comprised of legally relevant features of the case. The second block contained criminal justice system case processing characteristics. Defendant and victim characteristics were introduced in the third and fourth blocks. The fifth block included information about the victim-defendant relationship. The sixth and final block added the neighborhood characteristics measure to the model.

Dependent Variables

The dependent variable in the analysis is the minimum sentence length, in months, to which the defendant was sentenced. Minimum sentences bear a much closer relationship to the actual quanta of punishment imposed on criminal defendants than maximum terms. Maximum sentences are frequently

two to three times the length of the minimum. While defendants convicted of serious offenses may well serve time beyond the minimum sentence, defendants rarely serve their terms to their maximum date (Levin, Langan, & Brown, 2000; see also Baumer & Martin, 2013, p.146). Descriptive statistics for all variables are provided in Table 1.

Table 1: Descriptive Statistics (N=636)

Item	Mean/Proportion	SD
Minimum sentence, months	80.74	47.60
Voluntary manslaughter	.19	
Third Degree	.66	
Firearm involved?	.64	
Number of charges	5.70	5.06
County facility	.10	
Bench Trial	.39	
Jury Trial	.15	
Detained pretrial	.85	
Private Attorney	.22	
Male defendant	.93	
Black defendant	.79	
Hispanic defendant	.11	
Defendant age	26.26	10.38
Female victim	.17	
Black victim	.63	
Hispanic victim	.14	
Intimate partners?	.08	
Neighborhood characteristics index	135.19	54.53

Explanatory and Control Variables

Neighborhood context. To capture the effects of characteristics of the neighborhood in which the defendant resides, we employed a strategy that improves methodologically upon prior strategies and is also likely to more accurately reflect the attribution processes as they operate in the contexts of sentencing homicide defendants in a contemporary urban setting.

There is substantial methodological disagreement about what constitutes an appropriate spatial representation of “neighborhood” in social science research. Many researchers default to using Census-defined units of analysis, citing one of the following justifications: block groups (or tracts, or blocks) *might* be a valid proxy for “neighborhood;” much of the prior

research has relied on the Census boundaries as neighborhood proxies, and continuing to do so gives current results familiar context for interpretation and comparison; and finally, the Census data are freely available and of high quality.

However, critics argue that “neighborhoods” comprise substantially smaller geographic spaces than the Census-defined areas (Oberwittler & Wikstrom, 2008, Rountree & Land, 1996; Sampson, Morenoff, & Gannon-Rowley, 2002; Smith, et al., 2000; Taylor, 1997, 2015; Wooldredge, 2002; see also Hipp, 2007). Furthermore, the specific boundaries that define urban neighborhoods are frequently disputed by city residents (Campbell, Henley, Elliott, & Irwin, 2009; Guest & Lee, 1984; Haney & Knowles, 1978; Keller,

1968; Suttles, 1972; Taub, Surgeon, Lindholm, Otti, & Bridges, 1977). We contend that our method of incorporating characteristics of the spatial environment in our analysis is likely to more accurately reflect the attribution process that takes place at sentencing in this context, while also retaining the social meaning of *a priori* “neighborhood” distinctions and impressions that sentencing judges may hold.

Specifically, a .3 mile-radius circular buffer is constructed around the residence location of the defendant (Groff, 2011; McCord & Ratcliffe, 2009). Values for measures of neighborhood characteristics are interpolated using the Polygon-in-Polygon analysis tool written for ArcGIS by Hawthorne Beyer to generate an Area Weighted Mean (AWM) for each case, on each variable. An AWM is created for a constructed area by tabulating a weighted average of the values of that variable for all block groups that fall within the area’s boundary. Each contributing block group’s value is weighted according to the proportion of the area occupied by that block group (for a graphic depiction of AWM calculation, refer to Figure 1).

In addition to creating relatively small geographic units, the use of AWMs and .3 mile buffers enables us to simultaneously assess and avoid several methodological pitfalls, including edge effects, the ecological fallacy, and the Modifiable Areal Unit Problem [MAUP] (Ceccato, 2005; Flowerdew & Green, 2005; Groff & Lockwood, 2014; Hipp, 2007; Ratcliffe, 2005; Reibel & Bufalino, 2005; Rengert & Lockwood, 2008). The AWM values are valid statistical depictions of the constructed areas because the physical size of these areas is approximately equal to or larger than the physical area of the block groups being summarized. If the constructed areas were *smaller* than the block groups, use of the obtained AWM values would commit the ecological fallacy (Flowerdew & Green, 2005; Reibel & Bufalino, 2005). The impact of the MAUP on analysis results can be tested by varying buffer size. Sizes of .25, .30, and .50 miles were examined in the development of this methodology. Substantive results did not differ as a result of boundary size (see also McConnell, 2008, p. 218-220; Ratcliffe, 2005).

The .3-mile distance is equal to approximately three city blocks, yielding areas with a physical footprint of .28 square miles. Because each defendant’s address is uniquely associated with a constructed area, hierarchical modeling techniques are not appropriate here. Our analysis focuses on the residence location of the defendant because in the theoretical framework that guides this analysis it is the defendant, rather than the homicide event, that is the salient input influencing sentencing decisions and outcomes. A theoretically guided approach,

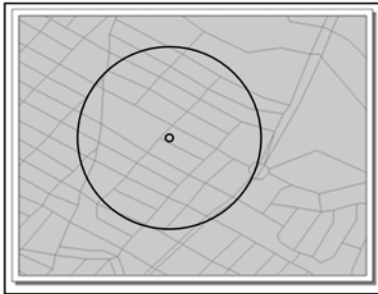
supplemented by Principal Components Analysis, was used to create a multiple-item index comprised of AWM values of variables to represent neighborhood context. The measures used to create this index were derived from the 2000 U.S. Census. The aim was to create a measure consistent with classic and contemporary formulations of social disorganization theory (Morenoff et al., 2001; Sampson et al., 2002; Shaw & McKay, 1942; Wilson 1987, 1996) and with previous similar research (Wooldredge, 2007; Wooldredge & Thistlethwaite, 2004). Six items are used to comprise this equally weighted additive index, and taken together, paint a picture of a disadvantaged or socially disorganized neighborhood. Socioeconomic indicators comprise four of the six items. Extreme and concentrated poverty is represented by two variables: the *percentage of households where the ratio of household income to the poverty line is less than .5* and the *percentage of female-headed households* (Wilson, 1987). The *percentage of minor children* measures the rate of dependency (Wilson, 1987). Systemic joblessness and underemployment are represented by the *percentage of adult residents over the age of 25 without a high-school diploma* (Wilson, 1987, 1996). This last indicator was chosen over the unemployment rate for a variety of reasons, including the limitations of the method used to calculate unemployment rates—in particular, the restriction of the definition of “unemployed” to only those actively seeking work. Severely disadvantaged urban areas plagued by persistent joblessness and underemployment are populated by numerous individuals who are no longer actively seeking employment, either due to discouragement in the face of limited opportunities, or as a result of participation in the underground economy; individuals who fail to complete high school are overrepresented in both groups (Venkatesh, 2006; Wilson, 1996). Additionally, Katz and Krueger (1999) point out that high rates of incarceration may distort unemployment statistics. Certain neighborhoods, particularly in urban areas, are disproportionately impacted by mass incarceration (Clear, Rose, Waring, & Scully, 2003; Gottfredson & Taylor, 1988; Lynch & Sabol, 2004), providing additional support for the use of an alternative measure in this research. Two measures of racial/ethnic heterogeneity (Messner et al., 1999; Ousey, 1999) are employed. These are the *percent of neighborhood residents in Spanish-speaking households*, and the *percent of Hispanic/Latino residents*.

It should be noted that nearly all the defendants in our sample resided in relatively disadvantaged areas of Philadelphia. The mean values in our data for all six measures used in the index are lower than the corresponding values for these items for all block

groups in the city (the grand mean). The measure can more appropriately be said to distinguish between *degrees of disadvantage* among residential locations

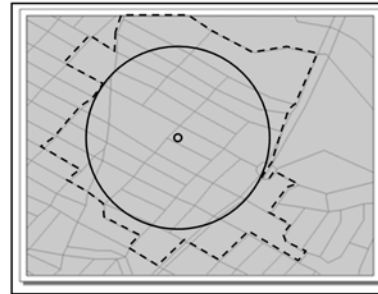
of defendants in this study than as a wide-ranging measure of disadvantage (see Peterson & Krivo, 2010).

Figure 1: Calculation of Area Weighted Means



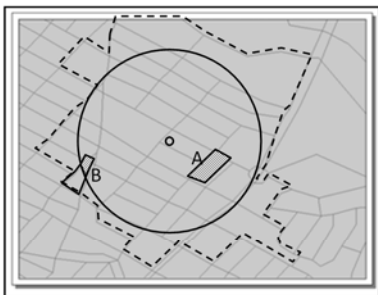
Step 1:

Buffers are drawn around each node to define neighborhood----



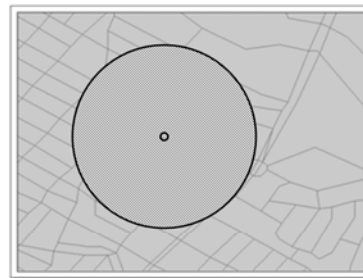
Step 2:

Contributing areas in the original boundary set containing space within buffers are identified.



Step 3:

The proportion of the buffer's total area contained in each of the identified contributing areas is calculated. For example, 'Area A' contributes 9% of the Buffer's total area, while 'Area B' contributes 3%.



Step 4:

Each contributing area's value for the variable being interpolated is weighted based on the calculations in step three.

Step 5:

The contributing areas weighted values are summed, to generate the Area Weighted Mean for the buffer area. Represented mathematically:

$$P' = \Sigma [P_i * (a_i / A)],$$

where P' = Interpolated AWM for buffer

P_i = rate for Block $_i$,

a_i = Area of Block $_i$, and

A = Area of buffer.

Additionally, the composition of this measure may be uniquely suited to the purpose of this particular study context. It may also be applicable only in cities with a similar racial/ethnic population composition and a high degree of racial housing segregation. African Americans comprise nearly half (44.8%) of Philadelphia's population, as compared to the national average of 13% (U.S. Bureau of Census, 2004). Nearly 70% of the homicide defendants in our sample were African American. Philadelphia exhibits "hypersegregation" in residential neighborhoods generally; this is particularly pronounced in our sample of criminal defendants. Analyses of our data indicate that the average White homicide defendant in Philadelphia resides in an area with an African American population of 24.2%. For African American defendants, 76.8% of their neighbors are African American. The lack of variability in the racial composition of Philadelphia neighborhoods results in little discriminative ability of a purely race-oriented measure.

Principal Components Analysis reveals that these six measures form a unidimensional construct (eigenvalue = 3.97; the next component extracted has an eigenvalue = 1.08), with all items displaying factor loadings of .7 or higher. Reliability analyses for the six-item scale demonstrate that it is statistically reliable (Cronbach's alpha = .83). Descriptive analyses show the index to be approximately normally distributed with a minimum value of 18.08 and maximum value of 305.51 (\bar{x} =133.41, s =53.53). High values represent an extremely socially disorganized neighborhood of residence, which we propose will result in an attribution about the defendant standing before the court for sentencing, and influence sentence severity via the impact of this attribution on the operationalization of focal concerns.

Legally relevant variables. The defendants in the analyses were convicted of third-degree murder, voluntary manslaughter, involuntary manslaughter, or homicide by vehicle. Conviction charges are included as control variables in the analyses. Preliminary ANOVA and post hoc tests revealed that involuntary manslaughter and homicide by vehicle were not differentiated by average sentence received (this is unsurprising, as these offenses occupy the same cell in the Pennsylvania sentencing grid). Dummy variables representing *conviction on third degree murder* and *voluntary manslaughter* were included, with the reference category (coded 0) comprised of those defendants convicted of involuntary manslaughter or homicide by vehicle. Also included as legally relevant controls were the total number of charged offenses and a dummy variable representing whether a firearm was used in the offense (1=yes, 0=no).

Given statutory guidelines, it is expected that those defendants convicted of more severe grades of homicide will receive harsher sentences. As an additional measure of offense seriousness, the *number of charged offenses* is expected to demonstrate a positive relationship with sentence length. It is also expected that the involvement of a *firearm* in the homicide will positively influence sentence severity due to statutory enhancements for the use of firearms in the commission of criminal offenses in the jurisdiction under study.

Criminal justice processing variables. A dummy variable represents whether the defendant was *detained* prior to adjudication (yes=1, no=0), in light of evidence of the influence of detention on sentence severity (e.g., Albonetti, 1991; Hagan, 1974; Swigert & Farrell, 1977). *Type of legal representation* was accounted for with a dummy variable representing cases where the defendant was represented by a private attorney, contrasted against the reference category of court appointed attorneys and public defenders (coded 0). *Adjudication type* was also examined using two dummy variables, with bench and jury trials contrasted against the reference category of guilty plea (coded 0).

Pennsylvania's sentencing guidelines were revised in 1995 and 1997. In order to account for any potential bias introduced by combining cases adjudicated over time, dummy control variables for each year, with 1995 set as the reference category (coded 0), were added to the regression models (Greene, 1993; Stimson, 1985; Thomson & Zingraff, 1981). Models were run with and without these controls and yielded results identical in substance, but the vector of temporal variables was retained in order to correctly partition variance. The coefficients for these variables are not reported in the interest of space and due to their lack of meaningful interpretation.

Ten percent of defendants in the sample were sentenced to incarceration in a *county facility*. In Pennsylvania, convicted offenders are incarcerated at the county level for sentences of twenty-three months or less. Sentences for these defendants are *by definition* less severe than for those incarcerated in state institutions; jails and prisons are also qualitatively different in a number of ways (Holleran & Spohn, 2004). Because these defendants are otherwise similar to the remainder of the sample, we chose to retain them in the analysis. However, a dummy variable representing county-level incarceration was added to the models for the sole purpose of controlling and accounting for these differences.

Defendant characteristics. *Defendant race/ethnicity* was accounted for in the models by two dummy variables representing African American

defendants and Hispanic/Latino defendants, with White as the reference category (coded 0). *Defendant sex* was represented by a dummy variable (male=1, female=0). *Defendant age* is included in the models as an untransformed continuous variable.

Victim Characteristics. Dummy variables representing the *sex* (female = 1, male = 0) and *race/ethnicity* of victims were included in the analyses. Victim race/ethnicity was coded as two dummy variables representing African-American and Hispanic victims (with White as the reference category, coded 0).

Victim-defendant relationship. A dummy variable indicating whether the victim and defendant were *intimate partners* (yes=1, no=0) was added to the analysis. Homicides were identified as involving intimate partners only when there was explicit evidence in the case file that the defendant and the victim were currently or had previously been intimately involved (e.g., a description of the relationship in the trial transcript or in the police incident report). This criterion included intimate partners who were married as well as those who were not, and it included those who were living together at the time of the homicide as well as those who were not.

Other variables. Several additional variables were included in preliminary analyses and failed to contribute significantly to explaining variability in sentencing outcomes. These included a *mean-centered age-squared* variable to investigate a non-linear relationship between defendant age and sentence severity (Steffensmeier & Demuth, 2006), *victim's age*, presence of *multiple victims*, whether the victim and defendant were *relatives*, and whether victim and defendant were from *different racial/ethnic backgrounds*. In an attempt to attain the most parsimonious model as well as minimize missing data, these variables were subsequently dropped from the final regression model.

Limitations of the Data

Unfortunately, criminal history information was not present in the files available for examination. The absence of criminal history information appears to be a problem endemic to data sources that permit investigation into sentencing patterns in homicide cases. Cooney and Burt (2008) note that criminal history information was missing in nearly one-fourth of cases in the Murder Cases in 33 Large Urban Counties data set (p. 506), the source that comes closest to the data used in the current study in terms of comprehensive availability of relevant variables (see also Broidy et al., 2006).

In this analysis of sentence severity among urban homicide defendants, we submit that this is *not* a fatal shortcoming. While criminal history is strongly and

consistently related to sentence outcomes in many other studies (e.g., Steffensmeier & Demuth, 2006; Wooldredge & Thistlethwaite, 2004), most sentencing studies do not confine the analysis to a single offense or offense type; those that do have examined offenses that are far less severe than homicide (e.g. Wooldredge & Thistlethwaite, 2004). Information on the criminal history profiles of homicide offenders available in the published research literature indicates that it is not uncommon for defendants convicted of the types of homicides analyzed in this study to have substantial and varied felony criminal histories that frequently include violence (Cook, Ludwig, & Braga, 2005; Dobash, Dobash, Cavanagh, Smith, & Medina-Ariza, 2007; Trojan & Salfati 2010, 2011). The information usually used in studies of sentencing outcomes in jurisdictions operating under sentencing guidelines is the offender's criminal history score in the guidelines matrix, which combines information about the extent and nature of prior felony convictions in a weighting scheme, with violent and serious offenses receiving proportionally greater weight than other offenses (sometimes a binary measure of criminal history is used; see Cooney & Burt, 2008). However, sentencing guidelines do not differentiate offenders with much precision at the upper end of the scale (Curtis, 2003; Rappaport, 1997). These points, taken together, suggest that while the absence of criminal history in the models presented here is a limitation, it is quite likely that its inclusion would *not* improve the model specification greatly, due to the limited variation that this variable would likely exhibit in this sample of urban homicide defendants.

Because of the data collection strategy employed and the objectives of the research—to understand the factors influencing sentencing in homicide cases—cases were selected for inclusion on the basis of having been adjudicated guilty of a homicide. Berk (1983) and Wooldredge (1998) noted that this type of selection bias can compromise both external and internal validity (see also Steen et al., 2005; Winship & Mare, 1992; Wooldredge 2007). Wooldredge (1998) contended that estimates generated in the absence of correction may serve to *underestimate* the relationships between extralegal variables and sentencing outcomes; the Heckman two-step correction procedure is currently used to account for selection bias. However, a recent analysis by Bushway, Johnson and Slocum (2007) identified a number of problems with the use of the Heckman two-step procedure in sentencing research including the likelihood of substantially *overstating* the significance of estimates generated by models using this method (p. 163). In any event, it was not possible to estimate a hazard function to account for the effects of selection.²

Because the goal of the research was to investigate the manner in which neighborhood context might influence sentence severity, the analysis was limited to defendants convicted of third degree murder, voluntary manslaughter, involuntary manslaughter, and homicide by vehicle. As explained above, first- and second-degree homicide carry mandatory sentences and exhibit no variability in sentence severity. So, while this analysis examines only lesser degrees of homicide, these cases represent more than 60% of sentenced homicide cases in Philadelphia over the period of study. Two-thirds of the defendants in our analyses were convicted of third-degree murder. A “typical” third degree homicide in Philadelphia involves an African American male offender and victim, both in their mid-twenties. Shootings dominate the mode of homicide; 70% of third degree cases involve a gun. Offenders and victims tend to reside close to one another and frequently have a prior relationship (offender and victim are relatives in 30% of third-degree cases; this is true in only 8% of non-third degree homicides). The homicide defendants in this analysis are likely representative of those in many contemporary American urban settings.

The decision to delete cases listwise was based on the researchers’ understanding of the process by which data came to be missing. The most common sources of missing data are victim characteristics, which were culled from the police reports in the files available for examination. The failure of reporting officers to provide this information on the police reports is presumed to be unrelated to the causal processes operating in the sentence outcomes under and therefore ignorable. In this circumstance, listwise deletion does not introduce bias (Allison, 2002).

Despite these limitations, the data used here are more comprehensive than existing publicly-available data sources with respect to the inclusion of factors relevant to variability in sanctioning. Many data sets do not contain information on victims, victim-defendant relationship, or situational characteristics of the homicide (e.g. Offender-Based Transaction Statistics; Pennsylvania Sentencing Data; State Court Processing Statistics). Other data sources are useful for studying homicide incidents but contain little or no information on adjudication and sentencing (e.g. Changing Patterns of Homicide and Social Policy in Philadelphia, Phoenix, and St. Louis, 1980-1994; Homicides in Chicago, 1965–1995; Supplementary Homicide Reports). The data available from the United States Sentencing Commission are inadequate for a number of reasons. No information on victim characteristics is included, and more importantly, the vast majority of homicides are tried and sentenced in state, not federal courts. Additionally, the

geographically robust methodology employed to measure environmental characteristics in this study requires precise address information on homicide defendants, something that is not present in publicly-available data sets.

Results and Discussion

The final model explains approximately 54% of the variation in minimum sentence length ($F=32.18$ (22, 615); $p<.001$). Diagnostic analyses indicate that the regression models are well-conditioned and multicollinearity is absent (all Variance Inflation Factor values are 2.9 or less). Each subsequent block of variables significantly increased the explanatory power of the model, with the exceptions of victim characteristics and victim-defendant relationship (full results of the models are presented in Tables 2, 3, and 4).

Inspection of the standardized regression coefficients (Table 3) and comparison of the R^2 values for each model confirm that legally relevant variables exert the lion’s share of influence on sentence severity across all models, as would be expected when analyzing a sample of defendants convicted of what is arguably the most serious criminal offense (see Blumstein, 1982). While the other significant effects are of lesser strengths, the standardized effect size of the effect of neighborhood characteristics is identical to the effect size of the observed jury trial “penalty” as well as that of the effect of defendant sex, both of which have been widely reported in prior research.

A conviction charge of third degree murder or voluntary manslaughter resulted in a longer sentence than a conviction for involuntary manslaughter or homicide by vehicle. The number of charges was not significantly related to sentence length. As expected, the control variable representing incarceration in a county facility was associated with a large and significant reduction in sentence length. It should be noted again that this finding is not theoretically meaningful; it merely accounts for the way that incarceration is administered at the state level.

With respect to criminal justice processing variables, only trial by jury significantly influenced sentence severity. In the final model, this effect translates into sentences averaging approximately nine months longer than those received by defendants disposed of via guilty plea, holding constant other variables in the model. Pretrial detention and type of counsel did not influence sentence severity in any of the models.

Male defendants and Hispanic defendants received significantly longer sentences than their female, White, and African American counterparts. The findings with respect to Hispanic defendants are

Table 2: Unstandardized Coefficients for Regression of Minimum Sentence Length on Explanatory Variables (N=636)

	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>		<i>Model 4</i>		<i>Model 5</i>		<i>Model 6</i>	
Intercept	31.81***	4.86	14.40*	6.66	7.57	10.1	6.96	10.2	7.00	10.2	13.06	10.63
3rd Degree	60.61***	4.72	61.69***	4.77	61.62***	4.76	61.89***	4.76	61.95***	4.77	63.02***	4.79
Vol MS	16.54***	5.15	17.18***	5.07	17.83***	5.07	17.85***	5.11	17.82***	5.11	18.54***	5.11
Firearm	10.25***	3.02	8.55**	3.00	5.21	3.14	5.10	3.21	5.13	3.21	4.91	3.21
# of charges	.45	.279	.55*	.27	.40	.28	.49	.28	.47	.29	.44	.29
County jail	-33.21***	5.40	-31.29***	5.29	-30.37***	5.27	-30.77***	5.27	-30.58***	5.29	-30.29***	5.28
Bench Trial			3.69	3.00	3.88	2.99	4.13	2.99	4.26	3.01	4.31	3.00
Jury Trial			9.03*	4.02	9.13*	3.99	9.22*	4.00	9.34*	4.01	9.05*	4.01
Detained			7.17	3.96	5.57	4.02	5.52	4.03	5.54	4.03	6.59	4.06
Private atty.			.22	3.32	.23	3.35	.10	3.35	.22	3.36	.30	3.35
Male def.					12.12*	5.28	12.41*	5.32	11.71*	5.55	12.63*	5.55
Black def.					4.23	4.71	1.89	5.12	2.13	5.16	1.89	5.14
Hisp. def.					13.22*	6.05	16.21	6.67	16.47**	6.70	20.86**	7.04
Defendant age					-.203	.14	-.20	.14	-.18	.14	-.20	.14
Female victim							-.25	3.73	.11	3.82	-.37	3.82
Black victim							2.98	3.61	3.03	3.61	2.83	3.60
Hisp. Victim							-6.33	5.21	-6.31	5.22	-5.01	5.25
Int. Partner									-2.56	5.69	-1.41	5.70
Neigh. Char.											-.06*	.03

Significance levels: *p < 0.05, **p < 0.01, ***p < 0.001.

consistent with a number of recent studies, which reveal that when a broader race/ethnicity measure is used, the differences observed between African American and White defendants in earlier research largely disappear, having been masked by the classification of the majority of Hispanic defendants as White (Auerhahn, 2007; Brennan & Spohn, 2010; Demuth, 2003; Demuth & Steffensmeier, 2004; Johnson, 2003; Spohn & Holleran, 2000).

Neither the sex nor the race/ethnicity of the victim exerted significant influence on sentence severity, also consistent with the findings of prior research (e.g. Curry, Lee, & Rodriguez, 2004; Myers, 1979; Spohn, 1995). The victim/defendant relationship also failed to influence sentence severity.

The most intriguing finding theoretically is the significant effect that neighborhood characteristics exert on sentence outcomes, controlling for other

Table 3: Standardized Coefficients for Regression of Minimum Sentence Length on Explanatory Variables (N=636)

Item	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	β	β	β	β	β	β
3rd Degree	.603***	.614***	.614***	.616***	.617***	.627**
Vol MS	.137***	.143***	.148***	.148***	.148***	.154***
Firearm	.104***	.086**	.053	.051	.052	.050
# of charges	.048	.058*	.043	.051	.050	.046
County jail	-.212***	-.199***	-.193***	-.196**	-.195***	-.193***
Bench Trial		.038	.040	.042	.044	.044
Jury Trial		.069*	.069*	.070*	.071*	.069*
Detained		.054	.042	.042	.042	.050
Private atty		.002	.002	.001	.002	.003
Male defendant			.067*	.068*	.064*	.069*
Black defendant			.036	.016	.018	.016
Hisp. defendant			.088*	.107*	.109*	.138**
Defendant age			-.044	-.043	-.040	-.044
Female victim				-.002	.001	.003
Black victim				-.030	.031	.029
Hispanic victim				-.046	-.045	-.036
Intimate Partner					-.014	-.008
Neighborhood characteristics						-.069*

Significance levels: *p < 0.05, **p < 0.01, ***p < 0.001

Table 4: Model Fit Summary by Blocks of Explanatory Variables

Model	R ²	Adjusted R ²	R ² Change	df1, df2	F change	P
Legally relevant variables						
1	.485	.481	.485	5, 630	118.614	.000***
CJ processing variables						
2	.522	.511	.037	9, 621	5.357	.000***
Defendant characteristics						
3	.532	.518	.010	4, 617	3.275	.011**
Victim characteristics						
4	.535	.519	.003	3, 614	1.214	.304
Defendant-victim relationship						
5	.535	.518	.000	1, 613	.203	.652
Neighborhood characteristics						
6	.538	.521	.003	1, 612	4.019	.045*

Significance levels: *p < 0.05, **p < 0.01, ***p < 0.001

variables. Homicide defendants residing in areas characterized by a high degree of social disorganization received sentences that are, on average, 3.3 months *shorter* than defendants who do not live in such areas. We suggest that the observed differences in sentencing outcomes associated with neighborhood characteristics are the result of a complex, multi-step process. It begins with attributions judges make about defendants, which are influenced in part by their cognitive maps of the neighborhoods in which defendants reside. These attributions shape the ways that judges operationalize focal concerns in dispensing punishment.

Much of the research examining the operation of focal concerns in sentencing has focused on the impact of race and racial stereotypes (e.g. Auerhahn, 2007; Steffensmeier et al. 1998; see Baumer, 2010, 2012 for comprehensive reviews). This body of research offers convincing evidence that attributions referencing racial stereotypes influence the operation of focal concerns at sentencing; this analysis suggests an additional “marker” that may also result in attributions that influence these focal concerns, namely, the residence location of the defendant. The leniency effect we find for defendants residing in the most disadvantaged areas provides support for the prevalence hypothesis.

The finding that attributions about the defendant based on residential neighborhood characteristics exert a significant *negative* effect on sentence severity for homicide defendants has a number of additional implications, particularly when considered within the context of prior research on focal concerns. Extending

the argument about the importance of “normal crimes” in the attribution process that takes place at sentencing, this divergence from the perhaps more logically intuitive finding reported by Wooldredge (2007) and Wooldredge and Thistlethwaite (2004) with respect to the decision to incarcerate suggests that focal concerns may operate (and interrelate) in particular ways for specific offenses, as well as at different decision points (Warren et al., 2012). In other words, while sentencing decisions may generally be guided by these three areas of concern, the specific manifestations or understandings of “blameworthiness” or “community protection” may differ according to the type of offense being considered, as well as the nature of the decision being influenced. Our finding suggests that judges may discount the blameworthiness of the defendants in our sample, perhaps by minimizing the degree of harm caused by the crime of homicide in the most disadvantaged areas of the city. The observed leniency effect may reflect a belief that homicide is a behavior that is either “normative” or “unexceptional” for individuals residing in extremely disadvantaged/socially disorganized areas of the city (see also Anderson, 1999).

The leniency effect also suggests that sentencing judges may minimize the potential risk that these offenders pose to the community. The mitigation effect of the defendant’s residence in a disadvantaged area on sentence severity may reflect a realistic—and differently focused—assessment of the utility of incarceration for the purpose of social defense in cases of homicide than might be seen with other types of urban crime. Indeed, the more logically intuitive effect

of residence in an extremely disadvantaged neighborhood context that flows from the focal concern of community protection *was* observed in Wooldredge's (2007) analysis of a general felony sample encompassing many crime types (albeit at a different decision point, the decision to incarcerate) and might well be observed in a sample encompassing a range of felony defendants charged with a variety of different offenses. However, because judges sentencing defendants charged with homicide are familiar with the typical characteristics of this offense, they would be expected to understand that homicide is frequently an offense that takes place between individuals who are acquainted with, or at least similar in, social circumstance to one another. Therefore, the judges' concern with protecting the community from repeat crimes on the part of the defendant may take on a different meaning than in the decision-making process for other offense types, as he or she is likely to hold the impression that the community at large is not at great risk from these offenders. This interpretation receives further support from the spatial clustering of homicides. This finding suggests that it may well be the case that some urban homicides—those committed in the most disadvantaged areas of the city—are seen by sentencing judges to some extent as either “beyond public control... palliated by virtue of being a product of refractory forces that lie deep within the social body” or (perhaps more likely) as “something that does not undermine the fabric of society” (Cooney & Burt, 2008, p. 521).

While it is quite likely that there is a statistical relationship between criminal history and residence location (Rose & Clear, 1999; Wooldredge & Thistlethwaite, 2004), it is unlikely that this relationship affects our substantive finding *vis-à-vis* the nature of the relationship between defendant residence and sentence severity. The primary danger of estimating a model of the impact of neighborhood characteristics on sentence severity in the absence of defendant criminal history is that the former may be proxying for the latter. However, this concern seems to be unfounded in this case, as the effect of environmental characteristics is *opposite* that which would be expected if residence in a severely disadvantaged area was acting as a proxy for a lengthy defendant criminal history. It is nearly impossible to produce a credible explanation of how an extensive criminal history would produce a *leniency* effect, particularly when viewed through the lens of focal concerns theory.

Conclusion: Social Geography, Criminal Sanctioning, and the Need for Offense-Specific Analysis

This analysis indicates that characteristics of the neighborhood in which the defendant resides—of which the defendant is a part—exert a significant effect on the sentencing of defendants in our study, a proposition which has received relatively little attention in the research literature on criminal sanctioning. Despite some limitations of the data, this study advances the goal of understanding the ways in which legal and extralegal factors influence the criminal sanctioning of defendants convicted of homicide, using a unique contemporary data set that combines information about defendant characteristics, victim characteristics, criminal justice processing, situational characteristics, and neighborhood characteristics—incorporating these last in a methodologically robust manner that likely reflects the way geographically-based attributions are made in an urban criminal court. The data used here contain information not available elsewhere in publicly-available sources—making it possible to simultaneously investigate potential sources of variability in criminal sanctioning different from those that have been previously explored in order to develop and examine a theoretical model of sentencing decisions based on a previously unexplored attributional pathway.

The findings we report are both consistent and at odds with earlier works that have asked similar questions. As expected, some of the legal and extralegal variables included in this analysis exerted effects on the dependent variable that are consistent with prior research on sentencing disparity. This work is the first to identify a negative relationship between residence in a socially disorganized or disadvantaged urban context and sentence severity for any felony offense. We suggest that this is a result of our focus on homicide defendants. In the only other recently published study examining the relationship between defendants' neighborhood characteristics similar to those employed in our study and sentencing outcomes, Wooldredge (2007) found that these characteristics failed to influence sentence severity but that they increased the likelihood of a prison sentence, sensibly interpreting this finding as consistent with the tenets of focal concerns theory, particularly with respect to blameworthiness and community protection. The current study examined sentencing outcomes only among urban defendants convicted of homicide;

Wooldredge's study examined sentence outcomes in a heterogeneous sample of offenders. The author did not report the distribution of offenses (the level of offense severity was controlled for in the analyses), but it is likely that Wooldredge's data were dominated by common offenses. Our results indicate that the nature of focal concerns and the ways in which they influence sentencing decisions may differ across types of criminal behavior. For this reason, we argue that analyses of sentence severity should be confined to similar offenses, particularly when those analyses rely on social-psychological frameworks of interpretation such as attribution theory.

With the exception of research on fear of crime, some of which does address the ways in which perceptions and evaluations of crime are influenced by community environmental characteristics (e.g., Covington & Taylor, 1991; Taylor & Covington, 1993), the vast majority of sociological and criminological research in this milieu is limited to consideration of the ways the environment affects behavioral outcomes of offenders and victims during or proximate to criminal events (e.g. Rengert & Groff, 2011; Rengert, Piquero & Jones, 1999; Shuck & Widom, 2005). The impacts of "extra-neighborhood processes," or the perceptions and attitudes held by actors *outside* a particular environment (Galster, 2003), on other criminal justice system processes and outcomes remains largely unexplored. Our results regarding the effect of neighborhood structural conditions on sentence severity, explained within the context of focal concerns theory, suggest the possibility that the relationship between neighborhood context and human behavior of all sorts contains many unexplored dimensions.

J. Nicholas Entrikin (1991) notes that "history and geography are fundamental components of identity, both individual and collective" (p. 6; see also Castells, 1977; Sack, 1993; Soja, 1989). Our interpretation of the leniency effect for homicide defendants residing in more disadvantaged areas is necessarily speculative, given the limited amount of research examining the sentencing *process*. Further research is needed to explore the multi-faceted relationships among criminal defendants, offense types, environmental social-structural conditions, and the role of attributions in sentencing outcomes. Qualitative studies investigating judicial decision-making in sanctioning are likely to provide essential knowledge about this process (see Fontaine & Emily, 1978). Research focusing on the nature of judicial deliberation in criminal sentencing, particularly in-depth interviews with and observation of sentencing judges, would likely shed more light on the findings reported here and could also confirm our assumptions regarding the ways in which processes of attribution operate and

influence the operationalization of focal concerns. Research on the sentencing process also has the potential to expand our understanding of the nature of focal concerns and the ways in which both of these are manifested in sentencing decisions for specific offense types. While this kind of research presents numerous challenges, it offers insight into what we can only infer from the more commonly used quantitative approaches and will undoubtedly advance our understanding of the nature and role of attributions—geographic and otherwise—in the criminal sanctioning process.

References

- Albonetti, C. A. (1991). An integration of theories to explain judicial discretion. *Social Problems*, 38(2), 247–265. doi: 10.2307/800532.
- Allison, P. D. (2002). *Missing data*. Thousand Oaks, CA: Sage.
- Anderson, E. (1999). *The Code of the street: Decency, violence, and the moral life of the inner city*. New York, NY: W.W. Norton and Company.
- Auerhahn, K. (2007). Just another crime? Examining disparity in homicide sentencing. *The Sociological Quarterly*, 48(2), 277–313. doi: 10.1111/j.1533-8525.2007.00079.x.
- Baller, R. D., Messner, S. F, Anselin, L., & Deane, G. (2002). The interchangeability of homicide data sources: A spatial analytical perspective. *Homicide Studies*, 6(3), 211–227.
- Baumer, E. P. (2010, September). *The role of race in sentencing outcomes*. Paper delivered at the Symposium on Crime and Justice: The Past and Future of Empirical Sentencing Research, The University at Albany.
- Baumer, E. P. (2012). Reassessing and redirecting research on race and sentencing. *Justice Quarterly*, 30(2), 231–261. doi: 10.1080/07418825.2012.682602.
- Baumer, E. P., & Martin, K. H. (2013). Social organization, collective sentiment, and legal sanctions in murder cases. *American Journal of Sociology*, 119(1), 131–182. doi: 10.1086/672082.
- Berk, R. (1983). An introduction to sample selection bias in sociological data. *American Sociological Review*, 48(3), 386–398.
- Bernstein, I. N., Kelly, W. R., & Doyle, P. A. (1977). Societal reaction to deviants: The case of criminal defendants. *American Sociological Review*, 42(5), 743–755.

- Black, D. (1970). Production of crime rates. *American Sociological Review*, 35(4), 733–748.
- Black, D. (1998). *The social structure of right and wrong* (rev. ed.). San Diego, CA: Academic Press.
- Blumstein, A. (1982). On the racial disproportionality of United States' prison populations. *Journal of Criminal Law and Criminology*, 73(3), 1259–1281. doi: 0091-4169/82/7303-1259.
- Boggs, S. L. (1965). Urban crime patterns. *American Sociological Review*, 30(6), 899–908.
- Bontrager, S., Bales, W., & Chiricos, T. (2005). Race, ethnicity, threat and the labeling of convicted felons. *Criminology*, 43(5), 589–622. doi: 10.1111/j.0011-1348.2005.00018.x
- Brennan, P. K., & Spohn, C. (2010). Race/ethnicity and sentencing outcomes among drug offenders in North Carolina. *Journal of Contemporary Criminal Justice*, 26(4), 371–398. doi: 10.1177/1043986208322712.
- Bridges, G. S., & Crutchfield, R. D. (1988). Law, social standing, and racial disparities in imprisonment. *Social Forces*, 66, 699–724.
- Broidy, L. M., Daday, J. K., Crandall, C. S., Sklar, D. P., & Jost, P. F. (2006). Exploring demographic, structural, and behavioral overlap among homicide offenders and victims. *Homicide Studies*, 10(3), 155–180. doi: 10.1177/1088767906288577.
- Browning, C. R., Feinberg, S. L., & Dietz, R. D. (2004). The paradox of social organization: Networks, collective efficacy, and violent crime in urban neighborhoods. *Social Forces*, 83(2), 503–534. doi: 10.1353/sof.2005.0006
- Bushway, S., Johnson, B. D., & Slocum, L. A. (2007). Is the magic still there? The use of the Heckman two-step correction for selection bias in criminology. *Journal of Quantitative Criminology*, 23(2), 151–178. doi: 10.1007/s10940-007-9024-4
- Campbell, E., Henley, J. R., Elliott, D. S., & Irwin, K. (2009). Subjective constructions of neighborhood boundaries: Lessons from a qualitative study of four neighborhoods. *Journal of Urban Affairs*, 31(4), 461–490. doi: 10.1111/j.1467-9906.2009.00450.x
- Castells, M. (1977). *The urban question: A Marxist approach* (A. Sheridan, Trans.). Cambridge, MA: MIT Press.
- Ceccato, V. (2005). Homicide in Sao Paulo, Brazil: Assessing spatial-temporal and weather variations. *Journal of Environmental Psychology*, 25(3), 307–321. doi: 10.1016/j.jenvp.2005.07.002
- Clairmont, D. H., & Magill, D. W. (1974). *Africville: The life and death of a Canadian Black community*. Toronto, Canada: McClelland and Stewart.
- Cohen, J. & Tita, G. (1999). Diffusion in homicide: Exploring a general method for detecting spatial diffusion processes. *Journal of Quantitative Criminology*, 15(4), 453–493. doi: 10.1023/A:1007596225550
- Collins, R. (2008). *Violence: A micro-sociological theory*. Princeton, NJ: Princeton University Press.
- Cook, P. J., Ludwig, J., & Braga, A. A. (2005). Criminal records of homicide offenders. *Journal of the American Medical Association*, 294(5), 598–601. doi: 10.1001/jama.294.5.598
- Cooney, M., & Burt, C. H. (2008). Less crime, more punishment. *American Journal of Sociology*, 114(2), 491–527. doi: 10.1086/592425
- Covington, J., & Taylor, R. B. (1991). Fear of crime in urban residential neighborhoods: Implications of between- and within- neighborhood sources for current models. *The Sociological Quarterly*, 32(2), 231–249. doi: 10.1111/j.1533-8525.1991.tb00355.x
- Clear, T. R., Rose, D. R., Waring, E., & Scully, K. (2003). Coercive mobility and crime: A preliminary examination of concentrated incarceration and social disorganization. *Justice Quarterly*, 20(1), 33–64. doi: 10.1080/07418820300095451
- Cubbin, C., Pickle L. W., & Fingerhut, L. (2000). Social context and geographic patterns of homicide among U.S. black and white males. *American Journal of Public Health*, 90(4), 579–587.
- Curry, T. R., Lee, G., & Rodriguez, S. F. (2004). Does victim gender increase sentence severity? Further explorations of gender dynamics and sentencing outcomes. *Crime and Delinquency*, 50(3), 319–343. doi: 10.1177/0011128703256265
- Curtis, D. (2003). Accomplishing the purposes of sentencing: Criminal history and recidivism. *Federal Sentencing Reporter*, 15(3), 185–189. doi: 10.1525/fsr.2003.15.3.185

- Demuth, S. (2003). Racial and ethnic differences in pretrial release decisions and outcomes: A comparison of Hispanic, black and white felony arrestees. *Criminology*, 41(3), 873–907. doi: 10.1111/j.1745-9125.2003.tb01007.x
- Demuth, S., & Steffensmeier, D. (2004). The impact of gender and race-ethnicity in the pretrial release process. *Social Problems*, 51(2), 222–242. doi: <http://dx.doi.org/10.1525/sp.2004.51.2.222>
- Dobash, R. P., Dobash R. E., Cavanagh, K., Smith, D., & Medina-Ariza, J. (2007). Onset of offending and life-course among men convicted of murder. *Homicide Studies*, 11(4), 243–271. doi: 10.1177/1088767907306850
- Durkheim, E. (1895/1982). *The rules of sociological method*. New York, NY: Free Press.
- Entrikin, J. N. (1991). *The characterization of place. Wallace W. Atwood Lecture*. Worcester, MA: Clark University Press.
- Engen, R. L., & Gainey, R. R. (2000). Modeling the effects of legally relevant and extralegal factors under sentencing guidelines: The rules have changed. *Criminology*, 38(4), 1207–1230. doi: 10.1111/j.1745-9125.2000.tb01419.x
- Farrell, R. A., & Holmes, M. D. (1991). The social and cognitive structure of judicial decision-making. *The Sociological Quarterly*, 32(4), 529–542. doi: 10.1111/j.1533-8525.1991.tb00152.x
- Farrell, R. A., & Swigert, V. L. (1978). Legal disposition of inter-group and intra-group homicides. *The Sociological Quarterly*, 19(4), 565–576. doi: 10.1111/j.1533-8525.1978.tb01200.x
- First Judicial District of Pennsylvania. (2008). *Court of Common Pleas Criminal Trial Division – Winter/Spring 2008 Judicial Schedule*. Philadelphia, PA.
- Flowerdew, R., & Green, M. (2005). Developments in areal interpolation methods and GIS. *Annals of Regional Science*, 26, 67–78.
- Fontaine, G., & Emily, C. (1978). Causal attribution and judicial discretion: A look at the verbal behavior of municipal court judges. *Law and Human Behavior*, 2(4), 323–337. doi: <http://dx.doi.org/10.1007/BF01038985>
- Frohmann, L. (1997). Convictability and discordant locales: Reproducing race, class, gender, and gender ideologies in prosecutorial decisionmaking. *Law & Society Review*, 31(3), 531–555.
- Galster, G. (1986). What is neighborhood? An externality-space approach. *International Journal of Urban and Regional Research*, 10(2), 243–261. doi: 10.1111/j.1468-2427.1986.tb00014.x
- Galster, G. (2003). Investigating behavioural impacts of poor neighborhoods: Towards new data and analytic strategies. *Housing Studies*, 18(6), 893–914. doi: 10.1080/0267303032000135492
- Garland, D. (2005). Penal excess and surplus meaning: Public torture lynchings in twentieth-century America. *Law and Society Review*, 39(4), 793–833. doi: 10.1111/j.1540-5893.2005.00245.x
- Garland, D. (2001). *The culture of control*. Chicago, IL: University of Chicago Press.
- Gottfredson, S. D., & Taylor, R. B. (1988). Community contexts and criminal offenders. In T. Hope & M. Shaw (Eds.), *Communities and crime reduction*. London, England: HMSO.
- Greene, W. H. (1993). *Econometric analysis* (2nd ed.). New York, NY: Macmillan.
- Gregory, D. (1979). *Ideology, science, and human geography*. New York, NY: St. Martin's Press.
- Griffiths, E. & Chavez, J. M. (2004). Communities, street guns, and homicide trajectories in Chicago, 1980–1995: Merging methods for examining homicide trends across space and time. *Criminology*, 42(4), 941–978.
- Groff, E. R., & Lockwood, B. (2014). Criminogenic facilities and crime across street segments in Philadelphia uncovering evidence about the spatial extent of facility influence. *Journal of Research in Crime and Delinquency*, 51(3), 277–314. doi: 10.1177/0022427813512494
- Groff, E. (2011). Exploring ‘near’: Characterizing the spatial extent of drinking place influence on crime. *Australian & New Zealand Journal of Criminology*, 44(2), 156–179. doi: 10.1177/0004865811405253
- Gujarati, D. (1995). *Basic econometrics* (3rd ed.). New York, NY: McGraw-Hill.
- Guest, A. M. & Lee, B. A. (1984). How urbanites define their neighborhoods. *Population & Environment*, 71(1), 32–56. doi: 10.1007/BF01257471
- Hagan, J. (1974). Parameters of criminal prosecution: An application of path analysis to a problem of criminal justice. *Journal of Criminal Law and Criminology*, 65(4), 536–544. doi: 10.2307/1142527

- Haney, W. G. & Knowles, E. (1978). Perceptions of neighborhoods by city and suburban residents. *Human Ecology*, 6(2), 201–214. doi: 10.1007/BF00889095
- Hallman, H. W. (1984). *Neighborhoods: Their place in urban life*. Beverly Hills, CA: Sage.
- Harvey, D. (1989). *The urban experience*. Oxford, England: Blackwell.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York, NY: Wiley.
- Hipp, J. (2007). Income inequality, race, and place: Does the distribution of race and class within neighborhoods affect crime rates? *Criminology*, 45(3), 665–697. doi: 10.1111/j.1745-9125.2007.00088.x
- Hipp, J. (2010). What is the ‘neighbourhood’ in neighbourhood satisfaction? Comparing the effects of structural characteristics measured at the micro-neighbourhood and tract levels. *Urban Studies*, 47(12), 2517–2536. doi: 10.1177/0042098009359950
- Hipp, J. (2012). Segregation through the lens of housing unit transition: what roles do the prior residents, the local micro-neighborhood, and the broader neighborhood play? *Demography*, 49(4), 1285–1306. doi: 10.1007/s13524-012-0121-0
- Holleran, D., & Spohn, C. (2004). On the use of the total incarceration variable in sentencing research. *Criminology*, 42(1), 211–240. doi: 10.1111/j.1745-9125.2004.tb00518.x
- Holmes, M. D., & Antell, J. A. (2001). The social construction of American Indian drinking: Perceptions of American Indian and White officials. *The Sociological Quarterly*, 42(4), 151–173. doi: 10.1111/j.1533-8525.2001.tb00029.x
- Huebner, B., & Bynum, T. (2006). An analysis of parole decision making using a sample of sex offenders: A focal concerns perspective. *Criminology*, 44(4), 961–991. doi: 10.1111/j.1745-9125.2006.00069.x
- Huebner, B., & Bynum, T. (2008). The role of race and ethnicity in parole decisions. *Criminology*, 46(4), 907–938. doi: 10.1111/j.1745-9125.2008.00130.x
- Johnson, B. D. (2003). Racial and ethnic disparities in sentencing departures across modes of conviction. *Criminology*, 41(2), 449–489. doi: 10.1111/j.1745-9125.2003.tb00994.x
- Jones, T. A., & Scull, A. (1973). Durkheim’s ‘Two laws of penal evolution.’ *Economy and Society*, 2(3), 278–284. doi: 10.1080/03085147300000013
- Katz, L. F., Krueger, A. B. (1999). The high-pressure U.S. labor market of the 1990s. *Brookings Papers on Economic Activity*, 1, 1–87. doi: 10.2307/2534662
- Keller, S. (1968). *The urban neighborhood*. New York, NY: Random House.
- Kelling, G. L. & Wilson, J. Q. (1982). Broken windows: the police and neighborhood safety. *Atlantic Monthly*, 249(3), 29–38.
- Kelly, H. H. (1976). A comparison of defense strategy and race influences in differential sentencing. *Criminology*, 14(2), 241–249. doi: 10.1111/j.1745-9125.1976.tb00015.x
- Klinger, D. A. (1997). Negotiating order in patrol work: An ecological theory of police response to deviance. *Criminology*, 35(2), 277–306. doi: 10.1111/j.1745-9125.1997.tb00877.x
- Lee, M. (2000). Concentrated poverty, race, and homicide. *The Sociological Quarterly*, 41(2), 189–206. doi: 10.1111/j.1533-8525.2000.tb00091.x
- Lieber, M. J., & Blowers, A. N. (2003). Race and misdemeanor sentencing. *Criminal Justice Policy Review*, 14(4), 464–485. doi: 10.1177/0887403403254492
- Levin, D. J., Langan, P. A., & Brown, J. M. (2000). *State court sentencing of convicted felons, 1996*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.
- Lundsgaarde, H. P. (1977). *Murder in space city: A cultural analysis of Houston homicide patterns*. New York, NY: Oxford University Press.
- Lynch, K. (1960). *The image of the city*. Cambridge, MA: MIT Press.
- Lynch, J. P., & Sabol, W. J. (2004). Assessing the effects of mass incarceration on informal social control in communities. *Criminology and Public Policy*, 3(2), 267–294. doi:10.1111/j.1745-9133.2004.tb00042.x
- Maguire, K. (Ed.). (2012). *Sourcebook of criminal justice statistics* (Table 3.106.2009). Retrieved from <http://www.albany.edu/sourcebook/pdf/t31062009.pdf>

- McCarthy, B., & Lindquist, C. A. (1984). Factors influencing sentences for violent offenses: An exploratory comparison of crime-specific and undifferentiated research strategies. *Criminal Justice Review*, 9, 37–46. doi: 10.1177/073401688400900206
- McConnell, P. R. (2008). *Toward a holistic vectored geography of homicide* (Unpublished doctoral dissertation). Temple University, Philadelphia, PA.
- McCord, E. S., & Ratcliffe, J. H. (2009). Intensity value analysis and the criminogenic effects of land use features on local crime patterns. *Crime Patterns and Analysis*, 2(1), 17–30.
- Messner, S. F., Anselin, L., Baller, R. D., Hawkins, D. F., Deane, G., & Tolnay, S. E. (1999). The spatial patterning of county homicide rates: An application of exploratory spatial data analysis. *Journal of Quantitative Criminology*, 15(4), 423–450. doi: 10.1023/A:1007544208712
- Morenoff, J. D., Sampson, R. J., & Raudenbush, S. W. (2001). Neighborhood inequality, collective efficacy, and the spatial dynamics of urban violence. *Criminology*, 39(3), 517–559. doi: 10.1111/j.1745-9125.2001.tb00932.x
- Myers, M. A. (1979). Offended parties and official reactions: Victims and the sentencing of criminal defendants. *The Sociological Quarterly*, 20(4), 529–540. doi: 10.1111/j.1533-8525.1979.tb01233.x
- Myers, M. A. (1980). Social contexts and attributions of criminal responsibility. *Social Psychology Quarterly*, 43(4), 405–419. doi: 10.2307/3033960
- Nardulli, P. F., Eistenstein, J., & Flemming, R. B. (1988). *The tenor of justice: Criminal courts and the guilty plea process*. Chicago, IL: University of Illinois Press.
- Oberwittler, D., & Wikstrom, P. O. H. (2008). Why small is better: Advancing the study of the role of behavioral contexts in crime causation. In D. Weisburd, W. Bernasco, & G. J. N. Bruinsma (Eds.), *Putting crime in its place: Units of analysis in geographic criminology*. New York, NY: Springer.
- Ousey, G.C. (1999). Homicide, structural factors, and the racial invariance assumption. *Criminology*, 37(2), 405–426. doi: 10.1111/j.1745-9125.1999.tb00491.x
- Peterson, R. D., & Krivo, L. J. (2010). *Divergent social worlds: Neighborhood crime and the racial-spatial divide*. New York, NY: Russell Sage Foundation.
- Rappaport, A. J. (1997). Criminal history and the purposes of sentencing. *Federal Sentencing Reporter*, 9(4), 184–188.
- Ratcliffe, J. H. (2005). Detecting spatial movement of intra-region crime patterns over time. *Journal of Quantitative Criminology*, 21(1), 103–123. doi: 10.1007/s10940-004-1789-0
- Reibel, M., & Bufalino, M. E. (2005). Street-weighted interpolation techniques for demographic count estimation in incompatible zone systems. *Environment and Planning A*, 37(1), 127–139. doi: 10.1068/a36202
- Rengert, G. F., & Groff, E. R. (2011). *Residential burglary: How the urban environment and our lifestyles play a role*. Springfield, IL: Charles C. Thomas.
- Rengert, G. F., & Lockwood, B. (2008). Geographical units of analysis and the analysis of crime. In D. Weisburd, W. Bernasco, and G. J. N. Bruinsma (Eds.), *Putting crime in its place: Units of analysis in geographic criminology*. New York, NY: Springer.
- Rengert, G. F., Piquero, A. R., & Jones, P. R. (1999). Distance decay reexamined. *Criminology*, 37(2), 427–445. doi: 10.1111/j.1745-9125.1999.tb00492.x
- Rose, D. R., & Clear, T. R. (1998). Incarceration, social capital, and crime: Implications for social disorganization theory. *Criminology*, 36(3), 441–480. doi: 10.1111/j.1745-9125.1998.tb01255.x
- Rose, H. M. (1978). The geography of despair. *Annals of the Association of American Geographers*, 68(3), 453–464. doi: 10.1111/j.1467-8306.1978.tb01209.x
- Rountree, P. W. & Land, C. L. (1996). Burglary victimization, perceptions of crime risk, and routine activities: A multilevel analysis across Seattle neighborhoods and census tracts. *Journal of Research in Crime & Delinquency*, 33(2), 147–180. doi: 10.1177/002242789603300200
- Sack, R. D. (1993). The power of place and space. *Geographical Record*, 83(3), 326–329. doi: 10.2307/215735

- Sampson, R. J., Morenoff, J. D., & Gannon-Rowley, T. (2002). Assessing "neighborhood effects": Social processes and new directions in research. *Annual Review of Sociology*, 28, 443–478. doi:10.1146/annurev.soc.28.110601.141114
- Savelsberg, J. (2002). Dialectics of norms in modernization. *The Sociological Quarterly*, 43(2), 277–305. doi: 10.1111/j.1533-8525.2002.tb00050.x
- Shaw, C. R., & McKay, H. D. (1942). *Juvenile delinquency and urban areas: A study of rates of delinquency in relation to differential characteristics of local communities in American cities*. Chicago, IL: University of Chicago Press.
- Shuck, A. M., & Widom, C. S. (2005). Understanding the role of neighborhood context in the long-term criminal consequences of child maltreatment. *American Journal of Community Psychology*, 36(3/4), 207–222. doi: 10.1007/s10464-005-8615-1
- Smith, D. A. (1986). The neighborhood context of police behavior. In A. J. Riess, Jr. & M. Tonry (Eds.), *Communities and crime: crime and justice: A review of research* (vol. 8). Chicago, IL: University of Chicago Press.
- Smith, W R., Frazee, S. G., & Davison, E. L. (2000). Furthering the integration of routine activity and social disorganization theories: Small units of analysis and the study of street robbery as a diffusion process. *Criminology*, 38(2), 489–523. doi: 10.1111/j.1745-9125.2000.tb00897.x
- Soja, E. (1989). *Postmodern geographies*. London, England: Verso.
- Spohn, C. C. (1995). Courts, sentences, and prisons. *Daedalus*, 124, 119–143.
- Spohn, C. C., & Cederblom, J. (1991). Race and disparities in sentencing: A test of the liberation hypothesis. *Justice Quarterly*, 8(3), 305–327. doi: 10.1080/07418829100091071
- Spohn, C. C., & Holleran, D. (2000). The imprisonment penalty paid by young, unemployed black and Hispanic male offenders. *Criminology*, 38(1), 281–526. doi: 10.1111/j.1745-9125.2000.tb00891.x
- Stark, R. (1987). Deviant places: A theory of the ecology of crime. *Criminology*, 25(4), 893–909. doi: 10.1111/j.1745-9125.1987.tb00824.x
- Steen, S., Engen, R. L., & Gainey, R. R. (2005). Images of danger and culpability: Racial stereotyping, case processing, and criminal sentencing. *Criminology*, 43(2), 342–468. doi: 10.1111/j.0011-1348.2005.00013.x
- Steffensmeier, D. (1980). Assessing the impact of the women's movement on sex-based differences in the handling of adult criminal defendants. *Crime & Delinquency*, 26(3), 344–357. doi: 10.1177/001112878002600305
- Steffensmeier, D., & Demuth, S. (2000). Ethnicity and sentencing outcomes in U.S. federal courts: Who is punished more harshly? *American Sociological Review*, 65(5), 705–729. doi: 10.2307/2657543
- Steffensmeier, D., & Demuth, S. (2001). Ethnicity and judges' sentencing decisions: Hispanic- black-white comparisons. *Criminology*, 39(1), 145–178. doi: 10.1111/j.1745-9125.2001.tb00919.x
- Steffensmeier, D., & Demuth, S. (2006). Does gender modify the effects of race-ethnicity on criminal sanctioning? Sentences for male and female white, black, and Hispanic defendants. *Journal of Quantitative Criminology*, 22(3), 241–261. doi: 10.1007/s10940-006-9010-2
- Steffensmeier, D., Ulmer, J. T., & Kramer, J. (1998). The interaction of race, gender, and age in criminal sentencing: The punishment cost of being young, black, and male. *Criminology*, 36(4), 763–797. doi: 10.1111/j.1745-9125.1998.tb01265.x
- Stewart, E. A. & Simons, R. A. (2009). *The code of the street and African-American adolescent violence*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, National Institute of Justice. NCJ 223509.
- Stimson, J. A. (1985). Regression in time and space: A statistical essay. *American Journal of Political Science*, 29(4), 915–947. doi:10.2307/2111187
- Sudnow, D. (1965). Normal crimes: Sociological features of the penal code in a public defender office. *Social Problems*, 12(3), 255–276. doi: 10.2307/798932 255-276
- Suttles, G. D. (1972). *The Social construction of communities*. Chicago, IL: University of Chicago Press.
- Swigert, V. L., & Farrell, R. A. (1977). Normal homicides and the law. *American Sociological Review*, 42(1), 16–32. doi: 10.2307/2117729

- Taub, R. B., Surgeon, G. P., Lindholm, S., Otti, P. B., & Bridges, A. (1977). Urban voluntary associations, locality based and externally induced. *American Journal of Sociology*, 83(2), 425–442. doi: 10.1086/226554
- Taylor, R. B. (1997). Order and disorder of streetblocks and neighborhoods: Ecology, microecology and the systemic model of social organization. *Journal of Research in Crime and Delinquency*, 34(1), 113–155. doi: 10.1177/0022427897034001006
- Taylor, R. B. (2015). *Community criminology: Fundamentals of spatial and temporal scaling, ecological indicators, and selectivity bias*. New York: New York University Press.
- Taylor, R. B., & Covington, J. (1993). Community structural change and fear of crime. *Social Problems*, 40(3), 374–397. doi: http://dx.doi.org/10.2307/3096886
- Thomson, R. J., & Zingraff, M. T. (1981). Detecting sentence disparity: Some problems and evidence. *American Journal of Sociology*, 86(4), 869–880.
- Tiryakian, E. A. (1964). Durkheim's 'two laws of penal evolution.' *Journal for the Scientific Study of Religion*, 3(2), 261–266. doi: 10.2307/1384521
- Trojan, C., & Salfati, G. S. (2010). A multidimensional analysis of criminal specialization among single-victim and serial homicide offenders. *Homicide Studies*, 14(2), 107–131. doi: 10.1177/1088767910364936
- Trojan, C., & Salfati, G. S. (2011). Linking criminal history to crime scene behavior in single-victim and serial homicide: Implications for offender profiling research. *Homicide Studies*, 15(1), 3–31. doi: 10.1177/1088767910397281
- U.S. Bureau of the Census. (2004). *U.S. interim projections by age, sex, race and Hispanic origin*. Available online at <https://www.census.gov/population/projections/data/national/usinterimproj.html>
- Ulmer, J. T. (1997). *Social worlds of sentencing: Court communities under sentencing guidelines*. Albany, NY: State University of New York Press.
- Ulmer, J. T., Kurlychek, M. C., & Kramer, J. H. (2007). Prosecutorial discretion and the imposition of mandatory minimum sentences. *Journal of Research in Crime and Delinquency*, 44(4), 427–458. doi: 10.1177/0022427807305853
- Venkatesh, S. (2006). *Off the books: The underground economy of the urban poor*. Cambridge, MA: Harvard University Press.
- Warren, P., Chiricos, T., & Bales, W. (2012). The imprisonment penalty for young Black and Hispanic males: A crime-specific analysis. *Journal of Research in Crime and Delinquency*, 49(1), 56–80. doi: 10.1177/0022427810397945
- Weisburd, D., Bushway, S., Lum, C., & Yang, S. (2004). Trajectories of crime at places: A longitudinal study of street segments in the city of Seattle. *Criminology*, 42(2), 283–231. doi: 10.1111/j.1745-9125.2004.tb00521.x
- Werthman, C., & Piliavin, I. (1967). Gang members and the police. In D. J. Bordua (Ed.), *The police: Six sociological essays*. New York, NY: Wiley.
- Wilson, W. J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy*. Chicago, IL: University of Chicago Press.
- Wilson, W. J. (1996). *When work disappears: The world of the new urban poor*. New York, NY: Vintage Books.
- Winship, C., & Mare, R. D. (1992). Models for sample selection bias. *Annual Review of Sociology*, 18, 327–350.
- Wooldredge, J. D. (1998). Analytical rigor in studies of disparities in criminal case processing. *Journal of Quantitative Criminology*, 14(2), 155–179. doi: 10.1023/A:1023076104837
- Wooldredge, J. D. (2002). Examining the (ir)relevance of aggregation bias for multilevel studies of neighborhoods and crime with an example comparing census tracts to official neighborhoods in Cincinnati. *Criminology*, 40(3), 681–709. doi: 10.1111/j.1745-9125.2002.tb00970.x
- Wooldredge, J. D. (2007). Neighborhood effects in felony sentencing. *Journal of Research in Crime and Delinquency*, 44(2), 238–263. doi: 10.1177/0022427807299825
- Wooldredge, J. D., & Thistlethwaite, A. (2004). Bilevel disparities in court dispositions for intimate assault. *Criminology*, 42(2), 417–456. doi: 10.1111/j.1745-9125.2004.tb00525.x

About the Authors

Kathleen Auerhahn, PhD is an Associate Professor in the Department of Criminal Justice at Temple University. She holds M.A. and Ph.D. degrees in Sociology from the University of California, Riverside, and a B.A. in Sociology from Tulane University. Her research interests center around issues relating to formal social control; research applications include examinations of the ethics and efficacy of criminal justice policy and policy reform, disparities in the adjudication and sanctioning process, and the development of innovative uses of research methods to further our understanding of social processes and organizations. Her work has appeared in *The Sociological Quarterly*, *Law and Social Inquiry*, *Criminology*, *Journal of Criminal Law and Criminology*, *Criminology & Criminal Justice*, *Journal of Drug Issues*, *Criminology and Public Policy*, and the *Annual Review of Sociology*. She is the author of *Selective Incapacitation and Public Policy: Evaluating California's Imprisonment Crisis*, published by SUNY press in 2003, and (with Caitlin J. McGuire) *Revisiting the Social Contract: Community Justice and Public Safety* (NovaScience Publishers, 2010).

Jaime S. Henderson, PhD is Director of Research and Development for the First Judicial District, Commonwealth of Pennsylvania. She holds a PhD from the Department of Criminal Justice at

Temple University, holding a B.A. in Psychology from the University of Nebraska-Lincoln, and an M. A. in Forensic Psychology from Castleton State College. Her research interests largely fall within the policy realm, particularly focusing on juvenile sex offender policy and implications for the juvenile justice system, youthful offenders, and public safety.

Patrick R. McConnell, PhD, PMP, GISP is the Director of the CSRA Agile Center of Excellence at CSRA in Washington, DC. He holds a Ph.D. in Criminal Justice from Temple University and is a certified Geographic Information Systems Professional. His research interests include the application of GIS technologies to the study of spatial behavior and the synthesis of high level geographic and statistical methods. His prior work includes publications in the *Journal of Criminal Justice Education* and *Teaching Sociology*.

Brian Lockwood, PhD is an Associate Professor in the Department of Criminal Justice at Monmouth University. He received his B.A. from the College of New Jersey and his M.A. and Ph.D. in Criminal Justice from Temple University. His research interests include the applications of GIS toward the study of crime and juvenile delinquency. His work has appeared in *Justice Quarterly*; *Journal of Urban Affairs*; *Police Practice and Research*; *Youth Violence and Juvenile Justice*; *Criminology*, *Criminal Justice*, *Law & Society*; and the *Journal of Research in Crime and Delinquency*.

Endnotes

- ¹ Pursuant to Section 7-401(u) of Philadelphia's Home Rule Charter, all employees of the First Judicial District are required to reside within the city limits.
- ² An attempt was made to estimate a hazard function to correct for selection bias in the models (Steen et al., 2005; Wooldredge, 2007) using proxy data on Philadelphia from other available data sets (State Court Processing Statistics and Pennsylvania Sentencing Data), weighted to match the characteristics of the current sample on demographic characteristics. However, in both of these data sets, the number of defendants convicted of homicide was so small statewide as to preclude estimation of a hazard function. There were three homicide defendants in the Pennsylvania subset of the State Court Processing Statistics for 1996 and only one in the 1998 collection; the Pennsylvania Sentencing Data (1998) contained only 31 homicide offenders.