



Sentencing and State-Level Racial and Ethnic Contexts

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Sentencing studies have incorporated social context in studying sentencing decisions, but to date the bulk of prior work has focused almost exclusively on county context. An unresolved question is whether there also may be statelevel effects on sentencing. Drawing from the minority threat perspective, we examine (1) whether state-level racial and ethnic contexts affect sentencing, (2) whether this effect amplifies the effect of county-level racial and ethnic contexts on sentencing, and (3) whether the interaction of county-level and state-level contextual effects is greater for minorities than for whites. Analysis of State Court Processing Statistics and other data indicates that state-level racial and ethnic contexts are associated with sentencing outcomes and that this effect may differ by outcome (e.g., incarceration versus sentence length) and by type of context (e.g., racial or ethnic). The study's findings and their implications are discussed.

Sentencing disparity has constituted a central focus of criminological and legal studies scholarship. Recent research has highlighted the salience of social context on sentencing decisions, including disparities in sentencing. This work has identified many factors—such as racial and ethnic composition, unemployment rate, and political party representation (e.g., Britt 2000; Fearn 2005; Feldmeyer et al. 2015; Ulmer and Johnson 2004)—that may influence courtroom decision making. Although these studies have significantly advanced scholarship, an unresolved question is whether there also may be state-level effects on sentencing. Specifically, it remains unknown whether state social context affects sentencing decisions, whether this effect conditions the effect of county-level social context, and whether interactive effects of county context and state context are greater for some groups (e.g., blacks and Hispanics) than for whites.

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A focus on direct and interactive effects of state context on sentencing is warranted for several reasons. First, sentencing laws and other factors related to sanctioning, such as the organization of correctional systems and parole boards, are organized at the state level. Second, scholars have argued that state-level effects on sentencing decisions may exist. Over 30 years ago, for example, Eisenstein and Jacob (1977) suggested that state laws and context influence case outcomes. Other work since has reinforced this observation. For example, a study by Crutchfield, Bridges, and Pitchford (1994) found "dramatic and substantively important differences" among states in racial disparities in imprisonment (p. 174); the authors concluded that "differences in [state] context contribute significantly to variation in the form and severity of punishments and to variation in the types of persons and groups punished for crimes" (p. 179) (see also Barker 2009). New lines of research have begun to examine this possibility more closely (see, e.g., Fearn 2005; Helms and Jacobs 2002; Wang et al. 2013). Third, substantive overlap exists in arguments presented for county-level effects and state-level effects; indeed, a number of studies suggest that minority threat effects operate at both county and state levels. Notably, however, studies of county-level effects have focused primarily on sentencing decisions while studies of state-level effects have focused primarily on variation in incarceration rates. Underlying each of these bodies of work is an emphasis on racial and ethnic threat as a factor that influences sentencing decisions and incarceration rates. A logical extension of such work is to combine them by examining how state-level context may influence sentencing decisions, as well as how it may modify county-level contextual effects.

Against this backdrop, the goal of this paper is to contribute to sentencing research aimed at understanding how state-level social context may influence sentencing decisions; in particular, the article seeks to extend efforts to use the minority threat perspective to understand better the factors that influence sentencing decisions. To this end, we develop a series of hypotheses aimed at investigating whether state context influences sentencing decisions, whether these effects amplify county-level effects on sentencing, and, finally, whether county-level and state-level contextual effects together produce more punitive outcomes for some groups than for others. In so doing, this study responds to calls for including state context in sentencing studies and it builds on previous multilevel sentencing research by theorizing and empirically examining interactions across three levels of analysis—individual, county, and state. We argue that, when the three levels of analysis are examined, the functional equivalent of a "perfect storm" model emerges, one that highlights the ways in

which race and ethnicity at multiple levels of analysis can interact to contribute to racial and ethnic disparities in sentencing.

Background

In recent decades, sentencing research has turned to a focus on contextual factors and their influence on sentencing decisions (Ulmer 2012). This new direction has its roots in the court community perspective. According to this perspective, courtroom decision making varies across different contexts (Eisenstein et al. 1988; Eisenstein and Jacob 1977; Ulmer 1997). The challenge has been in identifying specific contextual factors that affect courtroom decision making. In general, extant studies have focused primarily on county factors in examining sentencing decisions. That is not surprising. According to the court community perspective, for example, judges' attitudes toward defendcrime, and criminal justice have at correspondence with local political attitudes and culture, regardless of how judges are selected (Eisenstein and Jacob 1977: 45). In addition, because counties are responsible for building and maintaining court houses and other physical facilities for courts, courtroom actors must work together to compete for scarce resources and they must learn how to adapt to each other. Judges, for example, may need to adapt to pressures from prosecutors and defense attorneys, prosecutors may need to adapt to pressures from the police, and so on (Eisenstein and Jacob 1977). These local court communities may in turn foster their own substantive rationalities that may shape sentencing outcomes and processes (Savelsberg 1992; Ulmer and Kramer 1996).

In short, the court community perspective and a growing body of research have highlighted the importance of identifying contextual effects on a range of individual-level outcomes, including sentencing (Britt 2000; Fearn 2005; Johnson 2005, 2006; Sampson, Morenoff, and Gannon-Rowley 2002; Ulmer and Johnson 2004). Notably, however, little attention has been paid to state-level contextual effects on sentencing. This research gap is significant for several reasons.

First, criminal justice policies and laws are set predominately at the state level. Departments of corrections, parole boards, and sentencing commissions are state-level agencies, and sentencing laws and reforms typically are set at the state level (Shane-DuBow, Brown, and Olsen 1985). Also, states vary in their state court organization. Typically, court organization is controlled and regulated through statewide agencies, although states may have different systems for selecting trial court judges (Rottman et al.

2002). The variation in sentencing laws and court organization is considerable and prompted Crutchfield Bridges, and Pitchford (1994: 170) to observe that "the 50 states are 50 different legal and justice systems."

Second, studies of state incarceration rates have identified a number of state-level factors that may influence courtroom decision making. Eisenstein and Jacob (1977: 300), for example, have argued that "differences in procedures and case outcomes result from the combined effects of structures and rules mandated by state law, local political and cultural values, the structure and policies of sponsoring organizations, and the characteristics of courtroom workgroups." Similarly, Greenberg and West (2001: 618) have maintained that state imprisonment rates are "produced by decisions made by different agencies and actors (e.g., legislatures, governors, police, prosecutors, judges and juries, and parole boards) with different agendas, constituencies, incentives, and constraints." Along with other scholars, Greenberg and West (2001) developed and empirically tested arguments that such factors as state crime rates, racial composition, unemployment, poverty, and political culture may influence incarceration rates (see also Arvanites and Asher 1995; Beckett and Western 2001; Stucky, Heimer, and Lang 2005). Collectively, extant work suggests that state-level context may influence courtroom decision making and, as some researchers have argued, may especially influence incarceration decisions (e.g., Campbell 2011; Lynch 2010; Schoenfeld 2010).

Third, some studies have focused explicitly on state-level factors that may affect sentencing decisions. In each instance, however, the central idea has been that state-level effects need to be controlled for in multilevel studies that investigate county-level contextual effects on sentencing severity (e.g., Fearn 2005; Helms and Jacobs 2002; Weidner, Frase, and Schultz 2005). Thus, beyond controlling for state-level effects through the use of state dummy variables (e.g., Helms and Jacobs 2002) or controlling for states that have sentencing guidelines (e.g., Fearn 2005; Wang and Mears 2010a,b), no study to date has investigated how state-level factors may affect sentencing decisions or condition the effect of county-level context on such decisions.

Fourth, theoretical accounts, such as the minority threat perspective, point to the potential salience of factors at both county and state levels. Indeed, two isolated but conceptually related research traditions have coexisted in the literature. Specifically, whereas some researchers have used multilevel data to assess the effect of county-level minority population size on sentencing decisions (e.g., Feldmeyer et al. 2015; Ulmer and Johnson 2004; Weidner, Frase, and Schultz 2005), others have focused on state-

level factors to examine whether minority population size explains variation in state incarceration rates (e.g., Beckett and Western 2001; Greenberg and West 2001; Stucky et al. 2005). Studies of county-level minority threat effects typically have focused on individual-level sentencing decisions, whereas studies of state-level minority threat effects have focused primarily on incarceration rates at the state level.

Overall, these different bodies of work suggest that threat effects may operate at county and state levels. However, the insights from them have not been integrated. There exists, then, a need to understand and test how county and state effects may interact. The importance of research on this issue has been highlighted by scholars who have underscored the salience of multilevel contextual analyses of racial and ethnic contexts for understanding punishment policies (Blalock 1984; Huckfeldt and Sprague 1995; Johnson 2006). Work in this tradition has highlighted that courtroom actors do not simply reside in one context; rather, they reside in multiple contexts. Courtroom actors, for example, may work in a county with a large black population size and, at the same time, in a state with a predominantly white population.

Theorizing Minority Population Size and Sentencing Severity

The minority threat perspective has been used to explain the presumed association between minority population size and sentencing severity. The central logic of this perspective is that a growing racial and ethnic minority population poses a threat to white majorities who thus feel compelled to employ greater amounts of formal social control (King and Wheelock 2007). More specifically, Blalock (1967) argued that as the relative size of racial and ethnic minority group increases, members of the majority group—in this case, whites—may perceive a growing threat to them. As minority groups grow in size relative to whites, they are better able to compete with whites for economic resources and political power; accordingly, per this perspective, whites increasingly feel that their economic well-being and political dominance are threatened.

Research on the minority threat perspective suggests that members of a majority group may also associate the presence of large numbers of minorities with a higher level of crime (Bontrager, Bales, and Chiricos 2005: 591–2; see also Quillian and Pager 2001; Taylor 1998). Perceived threat in turn leads whites to demand intensified social control to reduce the threat. Thus,

levels of social control should be positively associated with minority presence in an area. Blalock (1967) further argued that the relationship between minority threat and social control may be nonlinear (p. 145; see also Stults and Baumer 2007). Specifically, he predicted that as the minority population increases, fear of competition increases then levels off, whereas fear of power threat increases slower but then increases more quickly.

Other minority threat research has pointed to a different form of nonlinearity. Specifically, scholars have argued that when minority population size reaches a threshold, the positive relationship between minority population size and levels of social control may change and become negative (Jackson and Carroll 1981; Jacobs, Carmichael, and Kent 2005). The change is held to result from the minority group having achieved a level of political influence sufficient to reduce formal social control efforts targeted against them. From this perspective, the relationship between minority population size and sentencing severity should be positive; however, the relationship may become negative in areas where the minority population has reached a critical threshold of political influence (Jacobs, Carmichael, and Kent 2005: 660).

Prior Research on Minority Population Size and Sentencing

In sentencing research, minority population size has been used as an indicator of racial or ethnic threat that, in turn, has been used to predict sentencing outcomes (e.g., Feldmeyer and Ulmer 2011; Johnson 2003, 2005, 2006; Sutton 2013). In particular, previous studies have investigated the effect of county-level minority population size on state court sentencing decisions. Collectively, these studies have provided "decidedly mixed" findings regarding the association between county-level minority population size, typically measured as the percent of the population that is black, and sentencing severity (Ulmer 2012: 14). For example, whereas Myers and Talarico (1987) found that county-level black percentage was positively associated with imprisonment (see also Britt 2000; Weidner, Frase, and Schultz 2005), other scholars have found no evidence of a relationship between sentencing decisions in state courts and the black population size (e.g., Fearn 2005; Helms and Jacobs 2002; Ulmer 1997; Ulmer and Johnson 2004).

The inconsistency of findings across previous studies is likely due in part to how the research was conducted. To illustrate, most studies have analyzed sentencing in one state, such as Pennsylvania or Georgia (e.g., Britt 2000; Ulmer and Johnson 2004) or several states (e.g., Helms and Jacobs 2002). This approach

does not allow researchers to directly assess the effect of variation in state context. This oversight is significant because the different county-level effects identified in the literature may be due in part to variation in state context. A central contribution of this study, then, is the assessment of the main and interactive effects of county and state contexts on sentencing decisions.

Hypotheses

Building on prior scholarship, we here develop three interrelated hypotheses aimed at understanding the potential effects of state-level context, independently and in interaction with county context and offenders' race and ethnicity, on sentencing decisions. We begin first with state contextual effects. Specifically, state-level minority population size may have a different effect on sentencing than county-level minority population size because of the different nature of the two contexts. Why? Sentencing decisions are a function of judicial decisions, which occur primarily at the county level, and of legislative decisions, which occur primarily at the state level. In addition, although state courts are organized and implemented along county boundaries, the substantive and procedural law in state courts typically originates from state legislatures. (State appeals courts also may shape sanctioning decisions by supporting, or not, state law.) In states that have a large minority population size, legislatures or other state governing bodies (e.g., sentencing commissions) may be more punitive. Given that sentencing decisions are often "governed and constrained substantially by legislative statutes or sentencing guidelines" (Baumer and Martin 2013: 134), tougher legislative statutes and sentencing guidelines may lead to more severe sentencing outcomes for defendants in these states. At the same time, states with a large minority population size may elect more punitive judges; in addition, governors in such states may be more likely to appoint punitive judges. In short, the following hypothesis can be identified:

Hypothesis 1: State-level minority population size will be positively associated with more severe sentencing. In addition, this effect should be nonlinear; past a certain threshold, the likelihood of more severe sentencing either will escalate or decline.

Next, we hypothesize that state-level racial and ethnic contexts will amplify the effect of county-level racial and ethnic contexts on sentencing severity. It is plausible that county-level minority population size may be especially influential in state environments that have a larger minority population size. For

example, states with a large minority population size may elect more punitive judges; in a similar vein, governors in those states may be more likely to appoint punitive judges. In turn, however, judges are likely to be sensitive to the social climate and collective sentiments in the counties in which they reside and carry out their work. Such judges may be even more punitive in counties with greater numbers of minorities. Indeed, per the logic of minority threat theory, communities resort to symbolic, "get tough" measures to control crime and reduce threat. By extension, if counties operate within a broader "threat" context, such as a state in which perceived threat from minorities is high, they may be even more likely to resort to severe sentencing. This potential for an interaction leads to the following hypothesis:

Hypothesis 2: A positive association between state-level minority population size and sentencing severity will be greater in counties with larger concentrations of minorities.

Finally, the last hypothesis assesses whether any identified interaction effect between county-level and state-level minority population sizes has differential effects for minority offenders versus white offenders. Steffensmeier, Kramer, and Jeffery Ulmer (1998: 789) have argued that "researchers who simply test for the direct effect of defendant's race may miss the subtle and potentially more interesting interactive effects," and, in so doing, "may discount the continuing significance of race in American society." Here, we test a logical extension of the previous hypotheses. In particular, we examine the possibility that individual-level threat effects may be amplified by county-level racial and ethnic contexts and by state-level racial and ethnic contexts. For example, blacks and Hispanics in areas with higher levels of threat may be viewed as representatives of a class of "dangerous offenders" and thus face tougher sentencing than whites who reside in these areas (Ulmer and Johnson 2004: 145). Here is our last hypothesis:

Hypothesis 3: Minority defendants will receive more severe sanctioning in counties and in states with larger concentrations of minorities.

Data and Methods

Data

We test these three hypotheses by using a combination of individual-level sentencing data and county-level and state-level contextual data. The criminal sentencing data came from the State Court Processing Statistics (SCPS) for 1998, 2000, and 2002, which, after removing missing data, include 17,440 convicted felon offenders in 60 urban counties across 23 states (Bureau of Justice Statistics 2006). The data have been used by a number of scholars (see, e.g., Bushway and Piehl 2007; Demuth and Steffensmeier 2004a,b; Fearn 2005) and have several strengths, including information about the processing of defendants and their race, ethnicity, and prior contact with the criminal justice system. Another important strength of the SCPS data is that they include felony cases filed across a number of states and counties, making it one of the best available data sources for studying the effect of state-level social context on sentencing. That said, the SCPS data lack information on judge and victim characteristics, defendants' demeanor and socioeconomic status, and statutory differences across jurisdictions. Nonetheless, "many researchers have usefully relied on the SCPS data" (Ulmer 2012: 5), and most importantly, the SCPS data provide a unique opportunity to extend work on contextual-level influences on state sentencing.

The second level consists of county-level characteristics. County-level data were obtained from three sources. The first source was the 2000 U.S. Census which we used to capture county-level variation in the relative size of black and Hispanic populations, and levels of resource deprivation. The second source was Leip's Atlas of U.S. Presidential Elections which we used to obtain county-level variation in political context. The third source was the Uniform Crime Reports from which we extracted county-level violent crime rates.

Finally, the third level of analysis consists of state-level characteristics, which constitute the primary focus of this study. The data on state-level black and Hispanic population sizes and economic context were extracted from the 2000 U.S. Census. Leip's Atlas of U.S. Presidential Elections was used to obtain information concerning state-level political context. Last, the National Center for State Courts was used to construct the sentencing guideline information. Collectively, these three levels of data, after being merged, allow us to investigate the effect of racial and ethnic contexts at different levels of analysis. Below, we describe each variable in the analysis. Table 1 provides the means and standard deviations for all of the study variables.

¹ Approximately 18 percent of the individual-level cases were missing. Although more recent SCPS data are available, we used 1998, 2000, and 2002 data to coincide with the 2000 U.S. Census which was the main source of the county-level and state-level measures.

Table 1. Descriptive Statistics

	Mean	s.d.
Outcome Measures		
Incarceration ($N=17,440$)	0.76	0.43
Ln sentence length (Natural log, N=13,179)	2.45	1.56
Offender Level (N=17,440)		
Black	0.42	0.49
Hispanic	0.25	0.43
Male	0.83	0.38
Age	31.02	10.05
Age Age^2	100.90	150.34
Criminal justice status	0.38	0.49
Criminal history scale	0.00	1.00
Multiple arrest charge	0.59	0.49
Violent offense	0.17	0.38
Property offense	0.32	0.47
Drug offense	0.39	0.49
Detention	0.53	0.50
Plea bargaining	0.95	0.22
Year 1998	0.34	0.47
Year 2000	0.32	0.46
County Level (N=60)		
Racial threat		
Percent black	16.38	13.47
Percent black ²	178.31	346.47
Ethnic threat		
Percent Hispanic	16.92	15.37
Percent Hispanic ²	232.17	530.21
Controls		
Violent crime rates	705.73	397.58
Resource deprivation	0.00	1.00
Percent violent crime	18.81	9.30
Percent voting for Bush	39.90	11.89
State Level (N=23)		
Racial threat		
Percent black	12.06	7.77
Percent black ²	57.77	79.72
Ethnic threat	· · · · ·	, , , , ,
Percent Hispanic	9.46	9.30
Percent Hispanic ²	82.65	145.60
Control	04.00	1 10.00
Percent voting for Bush	48.47	7.87
Percent below poverty	11.60	2.52
Sentencing guideline states	0.39	0.50
2 g garacinic sauces	0.00	3.50

Dependent Variables

Since Wheeler, Weisburd, and Bode's (1982) study, scholars typically have broken the sentencing decision into two distinct but related stages: the decision to incarcerate and the sentence length decision if incarcerated (King, Johnson, and McGeever 2010; Light 2014). This study follows that practice.² The incarceration variable was coded 1 if

² As indicated by Ulmer (2012), some researchers have argued against combining prison and jail sentences, and demonstrated the usefulness of using multinomial logistic regression to predict different types of incarceration (e.g., Harrington and Spohn 2007; Holleran and Spohn 2004). Ideally, we would examine state-level effects on different types of incarceration. However, because several counties in a few states sentenced no or very few offenders to jail, these empty or small cells created problems for three-level multinomial

the offender was sentenced to any length of confinement in a county jail or state prison and 0 if the offender was sentenced to any combination of nonincarceration options (i.e., probation, restitution, fines, suspended sentence, and so forth). Among these convicted felons in the sample, 76 percent were sentenced to a county jail or state prison. For those incarcerated, the sentence length variable was coded as the natural log of the months of incarceration in a county jail or state prison to address skew. After the transformation, the skewness statistic was -0.73, which was significantly lower than the value of 8.13 prior to the transformation.

Racial and Ethnic Contexts at County and State Levels

In this study, we investigate the effects of racial and ethnic contexts separately. At the county and state levels, we use the percentage of blacks to reflect racial context and the percentage of Hispanics to represent ethnic context. To evaluate the possible nonlinear effect of racial and ethnic contexts, we employ linear and quadratic terms of these variables. To minimize collinearity problems, the state-level and county-level percentages of blacks and Hispanics, respectively, were mean-centered before they were multiplied to create the interaction terms and the quadratic terms (Cohen et al. 2003).

Control Variables

To reduce the likelihood that any identified effect concerning racial and ethnic contexts is spurious, we included control variables at individual, county, and state levels. A broad range of individual-level controls were incorporated into the analysis. At the individual level, felons' race (1 = non-Hispanic black; 0 = otherwise) and ethnicity (1 = Hispanic; 0 = otherwise) were included.³ Because Steffensmeier, Kramer, and Ulmer (1995) found that the age-sentencing association was an inversed U-shaped curve, we included both a linear term for age (in years) and a quadratic term (age was mean centered before creation of the quadratic term).

logistic regression. For this reason, we combined prison and jail and created a total incarceration variable. We re-ran the analyses using prison sentences only (i.e., prison versus jail and non-custodial sanctions); although substantively similar, none of the main and interactive effects associated with state-level racial and ethnic contexts approached statistical significance (results available upon request). The use of the total incarceration variable is consistent with the approach used in and recommended by a number of prior studies (e.g., King, Johnson, and McGeever 2010; Light 2014; Wheeler, Weisburd, and Nancy Bode 1982).

³ Because fewer than 3 percent of defendants were classified as "other" and because our focus is on racial and ethnic contexts, we removed these individuals from the analysis.

Prior sentencing research also consistently shows that offenders' criminal history and offense severity affect sentencing outcomes. Here, we constructed measures similar to those used in prior sentencing studies, and, in particular, to those that have used the SCPS data (e.g., Bushway and Piehl 2007; Demuth and Steffensmeier 2004a,b; Fearn 2005). First, we included criminal justice status (1 = ves; 0 = no) to reflect whether the convicted felon's criminal justice status at the time of arrest was active. Second, we obtained a criminal history scale by performing a principal components analysis on four variables that reflect an offender's level of prior contact with the criminal justice system. These included the number of prior felony arrests, number of prior felony convictions, number of prior jail incarcerations, and number of prior prison incarcerations ($\lambda = 2.64$, factor loading > 0.68, Cronbach's alpha = 0.78). To control for offense severity, we included three dummy variables to capture the most serious offense type for which the offender was convicted: violent offense (1 = yes; 0 = no), property offense (1 = yes; 0 = no)0 = no), and drug offense (1 = ves; 0 = no), holding other offense as the reference category (see Fearn 2005; Ulmer and Johnson 2004). We then included a dummy variable designed to capture whether a defendant had multiple arrest charges (1 = ves; 0 = no). Research also indicates that the conviction mode and pretrial outcome affect sentencing severity (e.g., Albonetti 1986; Feldmeyer et al. 2015); accordingly, we controlled for detention (1 = detained prior to trial; 0 = otherwise) and plea bargaining (1 = conviction resulting from plea bargaining; 0 = otherwise). In addition, as the defendants were processed in state courts in years 1998, 2000, and 2002, there might be cohort differences that should be assessed due to changes in laws, policies, and law enforcement and court practices from year to year. Thus, we created dummy variables for 1998 and 2000, holding 2002 as the reference year.

Because the sentence length models include only those cases where a jail or prison sentenced was imposed, we used the Heckman two-stage model to control for potential selection bias when predicting sentence length (see Berk 1983; Bushway, Johnson, and Slocum 2007; Heckman 1979). Specifically, we first ran a probit model to predict those who had valid sentence length values. Second, following Bushway, Johnson, and Slocum (2007: 161), we constructed the Inverse Mill's Ratio (IMR) for each case that was included in the sentence length models. An important challenge is selecting a set of measures for the selection equation that would prevent multicollinearity between the IMR and the predictors of sentence length. Similar to prior sentencing literature that successfully implemented the Heckman models as

exclusion restrictions (e.g., Griffin and Wooldredge 2006), we included several dummy variables indicating whether a defendant was charged with a weapon-related offense, forgery, fraud, and motor vehicle theft. We found these variables were statistically significant predictors of receiving a jail or prison sentence, but did not lead to longer sentences. However, the collinearity between the IMR and other predictors in the sentence length model was problematic, with the IMR having the highest VIF (18) and a condition index of 51, exceeding established thresholds for problematic levels of collinearity (Bushway, Johnson, and Slocum 2007). For that reason, we did not include the IMR in our analysis of sentence length. However, we conducted ancillary analyses with the IMR included, and the findings related to our variables of interest were substantively identical (result available upon request).

A range of county-level and state-level contextual measures were included in the analysis. At the county level, we controlled for local violent crime rates (the average violent crime rates per 100,000 from 1998 to 2002, Cronbach's alpha = 0.97) and resource deprivation. Consistent with prior research (e.g., Kubrin and Herting 2003; Land, McCall, and Cohen 1990; Mears and Bhati 2006), the resource deprivation measure was created by performing a principal components analysis on the following variables: median family income, median household income, percent receiving public assistance, percent below poverty, percent unemployed in civilian populations above 16 years old, and per capita income ($\lambda = 4.77$, absolute value of all factor loadings > 0.81). Further, prior work has found that the proportion of violent crime that makes up a court's caseload may influence sentencing decisions (Johnson 2005, 2006; Ulmer and Johnson 2004). For this reason, we controlled for the percentage of court caseload made up of violent crime, measured by the percentage of violent offenses from the SCPS data set for the years included in the analysis. In addition, because local political context may affect sentencing severity (Baumer and Martin 2013; Fearn 2005), we controlled for the percentage of the county population who voted for George W. Bush in the 2000 presidential election.

Finally, sentencing practices may vary due to laws and state-level policies. For this reason, we included a dummy variable that indicates counties that are located in states with sentencing guide-lines. Prior scholarship has suggested that state-level political and economic contexts may be related to incarceration rates (see Greenberg and West 2001). Accordingly, we controlled for the percentage of state population that voted for George W. Bush in

the 2000 presidential election and percentage of the state population that was below poverty.⁴

Analytic Strategy

Due to the nature of the data—convicted felons were sentenced in 60 counties across 23 states—we used three-level hierarchical modeling, which incorporates a unique random effect into the statistical model for each county and state, thereby producing more robust standard errors than nonhierarchical models allow (Raudenbush and Bryk 2002: 100). In addition, we used three-level hierarchical generalized linear modeling (HGLM) for the incarceration decision. Incarceration is a dichotomous variable, so the individual-level (level 1) model is expressed:

logit(incarceration) =
$$\pi_{0jk} + \pi_{1jk}a_{1jk} + \ldots + \pi_{pjk}a_{pijk}$$
,

where π_{0jk} is the intercept and the mean log odds of incarceration in county j and state k, π_{pjk} is the effect of individual-level variable a_p (e.g., criminal history scale) on the log-odds of incarceration for county j and state k, and a_{pjjk} represents the values of individual-level variable a_p (e.g., criminal history scale) of defendant i in county j and state k, centering on the grand mean of variable a_p .

The county-level (level 2) model takes the form:

$$\pi_{0jk} = \beta_{00k} + \beta_{01k} X_{1jk} + \ldots + \beta_{0qk} X_{qjk} + r_{0jk},$$

where β_{00k} is the average log odds of incarceration in state k, β_{0qk} is the effect of county-level variable X_q (e.g., county-level percent black) on the intercept, π_{0jk} (i.e., the mean log odds of incarceration in county j and state k), and X_{qjk} represents the values of county-level variable X_q (e.g., county-level percent black) in county j and state k, centering on the grand mean of variable X_q . This model is specified with an error term, r_{0jk} , representing a random county effect on the intercept, π_{0jk} (i.e., the mean log odds of incarceration in county j and state k).

The state-level (level 3) model is expressed:

$$\beta_{00k} = \gamma_{000} + \gamma_{001} W_{1k} + \ldots + \gamma_{00m} W_{mk} + u_{00k}.$$

Here, γ_{000} is the average log odds of incarceration across states, and γ_{00m} represents the effect of state-level variable W_m (e.g.,

 $^{^4\,}$ Ideally, we would construct a state-level economic context measure by conducting a principal components analysis with several variables obtained from the U.S. Census, including percent below poverty, percent unemployed, and percent receiving public assistance that are highly correlated. However, the small number of states (N = 23) precluded this approach. Thus, we used one measure, percent below poverty, to represent state-level economic context.

state-level percent black) on the intercept, β_{00k} (i.e., the mean log odds of incarceration in state k), centering on the grand mean of this variable. This state-level model is specified with an error term, u_{00k} , which represents a random state effect on the intercept, β_{00k} (i.e., the mean log odds of incarceration in state k).

We used hierarchical linear modeling (HLM) for the sentence length decision. The individual-level (level 1) model for sentence length is expressed:

$$Y_{ijk} = \pi_{0jk} + \pi_{1jk}a_{1jk} + \ldots + \pi_{pjk}a_{pjk} + e_{ijk},$$

where π_{0jk} is the intercept and the mean sentence length of defendants in county j and state k, π_{pjk} is the effect of individual-level variable a_p (e.g., criminal history scale) on sentence length for county j and state k, and a_{pijk} represents the values of individual-level variable a_p (e.g., criminal history scale) for defendant i in county j and state k, centering on the grand mean of variable a_p . e_{ijk} is an individual-level random effect on sentence length.

The county-level (level 2) model for sentence length takes the form:

$$\pi_{0jk} = \beta_{00k} + \beta_{01k} X_{1jk} + \ldots + \beta_{0qk} X_{qjk} + r_{0jk},$$

where β_{00k} is the average sentence length in state k, β_{0qk} is the effect of county-level variable X_q (e.g., county-level percent black) on the intercept, π_{0jk} (i.e., the mean sentence length in county j and state k), and X_{qjk} represents the values of county-level variable X_q in county j and state k, centering on the grand mean of variable X_q . This model is specified with an error term, r_{0jk} , representing a random county effect on the mean sentence length in county j and state k.

The state-level (level 3) model for sentence length is expressed:

$$\beta_{00k} = \gamma_{000} + \gamma_{001} W_{1k} + \ldots + \gamma_{00m} W_{mk} + u_{00k}.$$

Here, γ_{000} is the average sentence length across states, and γ_{00m} represents the effect of state-level variable W_m (e.g., state-level percent black) on the intercept, β_{00k} (i.e., the mean sentence length in state k), centering on the grand mean of this variable. This model is specified with an error term, u_{00k} , which represents a random state effect on the mean sentence length in state k.

Further, to assess moderating effects of the state-level measures of racial and ethnic contexts on the county-level measures of racial and ethnic contexts, as well as their interaction with the offender's race and ethnicity, cross-level interaction techniques

were employed. We used HLM 7 for the analysis. Prior to estimating models to assess our hypotheses, we conducted multicollinearity diagnostics to ensure that there was no harmful multicollinearity in the regression analysis. The results of variance inflation factors (VIF) and condition indexes indicated that collinearity was not problematic (Hair et al. 1998). The models—one set focused on racial threat and the other focused on ethnic threat—that assess the effect of state-level racial and ethnic contexts include individual-level, county-level, and state-level controls. Again, we grand-mean centered the individual-level and county-level predictors because we are interested in estimating the effects of state-level racial and ethnic contexts on sentencing (see Baumer and Martin 2013; Enders and Tofighi 2007).

For reference, Appendix A displays results for the incarceration and sentence length models that include the individual-level, county-level, and state-level controls. The models used to estimate state effects also include these control variables. However, we omitted them from the tables discussed below to highlight better the results from the interaction analyses; the effects of the controls were similar to those shown in Appendix A.⁵ Appendix B presents the random slope models for the incarceration and sentence length decisions. Although these models indicated that some coefficients varied significantly across counties or states, the modest number of counties and states precluded robust estimation using this approach (Raudenbush and Bryk 2002: 258). Following Johnson's (2006) recommendation, we instead employed a fixed effects modeling approach to "maximize the number of aggregate units for which a unique regression equation could be estimated and to facilitate model convergence" (p. 281).

Results

Hypothesis 1

Models 1a and 1b in Table 2 examine whether state-level black population size is associated with the incarceration and sentence length decisions. The incarceration model (model 1a) does not indicate a statistically significant effect of state-level black

⁵ Before proceeding to estimate multivariate models, we first estimated unconditional models to assess the level of between-county and between-state variance in incarceration and sentence length decisions. The significant random effects components at both county and state levels indicated that the likelihood of receiving an incarceration sentence and the length of incarceration differed across counties (p < 0.01) and states (p < 0.01).

⁶ We included the squared terms of county-level and state-level black or Hispanic population sizes in the incarceration and sentencing length models, but removed them when they were not statistically significant.

Table 2.	Hierarchical Regression Models of the Effect of State-Level Racial
	Threat on Sentencing Decisions ^a

	Incarceration		Ln	sentence ler	ngth	
	Model 1a	Model 2a	Model 3a	Model 1b	Modes 2b	Model 3b ^b
Intercept	1.08**	1.20**	1.22**	2.77**	2.75**	2.76**
Black	(0.19) 0.21**	(0.21) 0.20** (0.05)	(0.21) 0.29** (0.07)	(0.10) 0.02 (0.03)	(0.10) 0.02	(0.11) -0.02
County pct. black	(0.05) -4.21 (20.16)	(0.03) -7.42 (20.34)	(0.07) -7.80 (20.16)	12.65 (8.79)	(0.03) 11.22 (9.03)	(0.04) 10.60 (9.09)
County pct. black ²	1.30* (0.51)	0.80 (0.85)	0.90 (0.85)	(0.70)	(0.00)	(0.00)
State pct. black	-46.30 (32.01)	-39.36 (31.69)	-37.96 (31.47)	51.26** (16.58)	50.31** (16.59)	49.49** (17.06)
State pct. black × county pct. black		-3.49 (2.32)	-3.75 (2.30)		0.37 (0.57)	0.09 (0.61)
State pct. black × county pct. black ²		0.14* (0.07)	0.12 (0.07)			
Black × state pct. black			28.65** (10.41)			-0.03 (7.42)
Black × county pct. black			-18.10* (7.08)			-5.01 (3.09)
Black × county pct. black ²			0.33 (0.35)			
Black × state pct. black × county pct. black			-0.1.63 (1.04)			0.98* (0.39)
Black × state pct. black × county pct. black ² Random effects			0.07 (0.04)			
Level-1 intercept	_	_	_	1.63	1.63	1.63
Level-2 intercept	0.55**	0.51**	0.50**	0.13**	0.13**	0.13**
χ² Level-3 intercept	812.90 0.34**	751.35 0.30**	737.45	643.02 0.10**	643.01 0.10**	621.04 0.12**
χ^2	61.84	60.42	60.60	59.28	59.57	61.83

population size. By contrast, the sentence length model (model 1b) reveals a statistically significant and positive effect of statelevel black population size (b = 51.26). A different pattern surfaces for county effects. Here, we can see in the incarceration model that there is a nonlinear relationship between county-level black population size and incarceration, as indicated by the statistically significant quadratic term (b = 1.30), whereas no significant association surfaces in the sentence length model.

^{*}p<0.05; ** p<0.01 (two-tailed test). ^aCoefficients and standard errors, except for the intercept and black, were multiplied by

^bThe black slope was allowed to vary across states, because the variance was statistically significant.

⁷ To check whether the observed nonlinear finding between county-level black population size and the incarceration decision was an artifact of an outlier county that had over 60 percent blacks, we estimated models without it; the results were substantively similar. In 9 of the 60 counties, over 30 percent of the population was black; in 7 of them, over 35 percent of the population was black; and in 6 of them, over 40 percent of the population was black. This distribution, together with the preliminary analyses, lends support to the view that the observed U-shape curve between county-level black population size and the incarceration decision is relatively robust.

Table 3.	 Hierarchical Regression Models of the Effect of State-Level Eth 	nic
	Threat on Sentencing Decisions ^a	

	Incarceration		Ln	Ln sentence length		
	Model 1a	Model 2a	Model 3a	Model 1b	Model 2b	Model 3b ^b
Intercept	0.98**	1.16*	1.15*	2.80**	2.67**	2.65**
Hispanic	(0.17) 0.23** (0.06)	(0.51) 0.23** (0.06)	(0.51) 0.31 (0.25)	(0.12) 0.01 (0.03)	(0.15) 0.01 (0.03)	(0.15) 0.10 (0.09)
County pct.	-13.15	1.80	-5.36	-1.38	-11.74	-13.72
Hispanic	(12.91)	(40.83)	(41.08)	(5.81)	(9.52)	(9.11)
State pct.	16.36	-6.39	-6.09	-33.14*	-26.54	-26.66
Hispanic	(31.52)	(75.04)	(75.06)	(14.65)	(15.25)	(15.39)
State pct. Hispanic ²	3.39* (1.39)	4.43 (2.79)	4.36 (2.80)	,		,
State pct. Hispanic		-1.00	0.16		0.74	.99
× county		(5.07)	(5.11)		(0.55)	(0.52)
pct. Hispanic						
State pct. Ĥispanic ²		-0.00	-0.04			
× county pct.		(0.18)	(0.18)			
Hispanić						
Hispanic × state			-35.01			-5.60
pct. Hispanic			(29.40)			(5.25)
Hispanic × state			2.71*			
pct. Hispanic ²			(1.20)			
Hispanic × county			-24.37			-2.39
pct. Hispanic			(26.56)			(6.15)
Hispanic × state			1.84			0.24
pct. Hispanic ×			(3.23)			(0.35)
county pct. Hispanic						
Hispanic × state			-0.09			
pct. Hispanic ² ×			(0.11)			
county pct. Hispanic						
Random effects						
Level-1 intercept	_	_	_	1.63	1.63	1.63
Level-2 intercept	0.70**	0.69**	0.69**	0.13**	0.12**	0.11**
χ^2	841.36	816.76	814.55	610.65	521.39	419.17
Level-3 intercept	0.01	0.004	0.01	0.18**	0.17**	0.18**
χ^2	24.50	23.96	24.18	85.27	85.05	97.50

^{*}p<0.05; **p<0.01 (two-tailed test).

A parallel analysis is presented in Table 3; only here the focus is on the effect of Hispanic population size on sentencing severity. Inspection of model 1a shows that the relationship between statelevel Hispanic population size and the likelihood of incarceration is nonlinear, as indicated by the statistically significant quadratic term (b = 3.39). Specifically, a greater presence of Hispanics is associated with increasingly greater probabilities of incarceration. The effect on sentence length is, by contrast, negative (b = -33.14), thus, a greater presence of Hispanics is associated with shorter prison terms. There is no evidence of a statistically significant effect of county-level Hispanic population size on incarceration or sentence length.

^aCoefficients and standard errors, except for the intercept and Hispanic, were multiplied by 1.000.

^bThe Hispanic slope was allowed to vary across counties, because the variance for the slope was statistically significant.

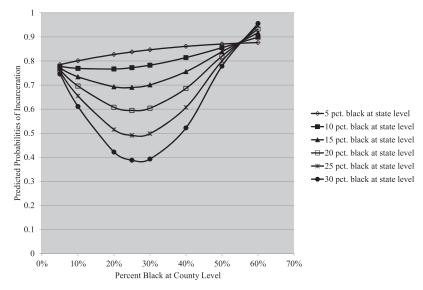


Figure 1. Predicted Probabilities of Receiving a Jail or Prison Sentence, Given Different Levels of Percent Black at County and State Levels.

Hypothesis 2

Models 2a and 2b in Table 2 provide a test of the interaction between county-level and state-level racial contexts on the incarceration and sentence length decisions. Review of model 2a for the incarceration decision indicates that the interaction term for state-level black population size and the quadratic specification for county-level black population size is statistically significant (b = 0.14). To facilitate discussion of this interaction, Figure 1 displays the predicted probabilities of receiving a jail or prison sentence, setting the covariates at their means.

Inspection of Figure 1 indicates that state-level percent black amplifies the effect of county-level percent black on the incarceration decision. However, the interaction is complicated. When approximately 25–30 percent or more of a county's population is black, predicted probabilities of receiving a jail or prison sentence increase. That pattern is reflected in the set of upward-slopes—after the 25–30 percent threshold—for each of the different state-level black population percentages. It is similar to findings from Giles et al. (1975) and Valenty and Sylvia (2004). Specifically, Giles et al. (1975) found that when 30 percent or more of school district's population was black, white transfer rates significantly increased. Similarly, Valenty and Sylvia (2004) focused on the effect of Hispanic presence, and found that when the percent of Hispanics in a given area was greater than 30 percent, voters were more likely to vote for racially- and ethnically-charged ballot

propositions. Although their analyses did not include interactions, these results highlight the potential for a threshold effect similar to that identified here.

In sum, in counties *above* the 25–30 percent black threshold, an increase in county-level percent black is associated with a greater probability of incarceration; this effect is more pronounced in states that have a larger size of black population. In short, convicted felons are sentenced especially harshly when they reside in states and counties that have greater concentrations of blacks. The effect differs *below* the threshold, however. When less than 25–30 percent of the county population is black, predicted probabilities of receiving a jail or prison sentence decrease as county-level percent black increases. This decrease generally is more pronounced in states with a larger black population size, a pattern that is unanticipated and that we discuss in the conclusion.

In contrast to the results that focus on predicting incarceration, we see no evidence that state racial context conditions the effect of county-level black population size on sentence length. Similarly, the parallel set of analysis that examines state ethnic context (models 2a and 2b in Table 3) yield no statistically significant state-county interactions. In short, the only statistically significant state-county interaction involves state and county racial contexts and an effect on the incarceration decision, not sentence length.

Hypothesis 3

Finally, we turn to hypothesis 3, which anticipates a three-way interaction between state, county, and individual racial and ethnic measures. In Table 2, models 3a and 3b test this hypothesis when the focus is on race. In Table 3, models 3a and 3b test this hypothesis when the focus is on ethnicity. Inspection of the models reveals a statistically significant three-way interaction involving race and sentence length decisions (Tables 2, model 3b). No evidence of significant three-way interactions for race and incarceration (Table 2, model 3a) or for ethnicity and incarceration (Table 3, model 3b) emerged.

For ease of presentation, we present the results from the interactive model involving race and sentence length in figures. Specifically, we present the estimated sentence lengths in months. In so doing, we set the covariates at their means and examine different levels of county-level and state-level percent black for blacks (Figure 2) and whites (Figure 3), respectively.⁸

⁸ We took the exponential of the predicted values obtained from model 3b in Table 2 because all the variables were regressed on the natural log of sentence length in months.

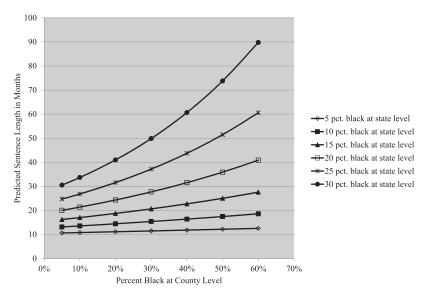


Figure 2. Predicted Sentence Length in Months for Convicted Black Felons, Given Different Levels of Percent Black at County and State Levels.

Of particular relevance is Figure 2, which suggests that for black felons, county-level black population size is positively associated with sentence length and that this positive association is significantly amplified by state-level black population size. It indicates that black felons receive longer sentences in counties and states characterized by a greater black presence. For both groups, there is no appreciable state-level conditioning effect until state-level percent black reaches 25-30%. In states that pass this threshold, more pronounced sentence length differences between blacks and whites emerge, as can be seen when comparing Figures 2 and 3. For example, the most remarkable difference between blacks and whites in predicted sentence length occurs in a 60 percent-black county and a 30 percent-black state: Convicted black felons receive sentences that average 90 months, as opposed to an average of 53 months among convicted white felons residing in states with a similar concentration of blacks. In short, partial support for a "perfect storm" interactive effect exists: Specifically, relative to their white counterparts, blacks receive longer sentence terms in counties and states characterized by a greater black presence.

Discussion and Conclusions

Heeding calls for multilevel contextual analyses of the minority threat perspective (Blalock 1984; Liu 2001) and calls for

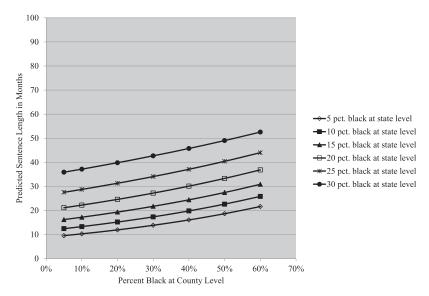


Figure 3. Predicted Sentence Length in Months for Convicted White Felons, Given Different Levels of Percent Black at County and State Levels.

contextual analyses of sentencing (e.g., Johnson 2006; Ulmer and Johnson 2004), this study contributes to sentencing research by examining the effect of state-level racial and ethnic contexts and the potential interaction of state context with county-level racial and ethnic contexts as well as with individual defendants' race and ethnicity. Building on the minority threat perspective and prior scholarship, we developed hypotheses about the main and interactive effects of state-level minority population size. We then tested these hypotheses through analysis of state court processing data and a range of county and state variables.

Table 4 summarizes the results of the hypothesis tests. Here, we identify several key patterns that surfaced. First, the study identified more evidence of a racial threat effect than of an ethnic threat effect; the difference was most notable for the sentence length decision. Second, greater evidence of an ethnic threat effect than a racial threat effect emerged when examining the decision to incarcerate. Third, state-level black population size amplified the effect of county-level black population size in increasing the probability of incarceration, but only after a certain county-level percent threshold (25–30 percent black population) was crossed. Fourth, the study found partial support for a "perfect storm" interactive effect when racial threat and sentence length were examined: The black-white disparity in sentence length was more pronounced in counties and states with larger black population sizes.

Table 4. Results of Hypothesis Tests

Hypotheses	Incarceration Decision Results	Sentence Length Results
Racial threat		-
1: State-level black population size will be	Not	Partially
positively associated with more severe sentencing. In addition, this effect will be nonlinear; past a certain threshold, the	supported	supported
likelihood of more severe sentencing either will escalate or decline.		
2: A positive association between state-level	Partially	Not
black population size and individual-level sentencing will be greater in counties with larger concentrations of blacks.	supported	supported
3: Black defendants will receive more severe sanctioning in counties and in states with larger concentrations of blacks.	Not supported	Supported
Ethnic threat		
1: State-level Hispanic population size will be positively associated with more severe sentencing. In addition, this effect will be nonlinear; past a certain threshold, the likelihood of more severe sentencing either will escalate or decline.	Supported	Not supported
2: A positive association between state-level	Not	Not
Hispanic population size and individual-level sentencing will be greater in counties with larger	supported	supported
concentrations of Hispanics. 3: Hispanic defendants will receive more severe sanctioning in counties and in states with larger concentrations of Hispanics.	Not supported	Not supported

Several observations flow from these findings. First, state-level racial and ethnic contexts appear to be associated with sentencing severity. However, state-level racial context appears to exert different effects on the incarceration decision as compared to the sentence length decision. When state-level racial context was examined in this study, the threat effect was evident for the sentence length decision, but not for the incarceration decision. This finding suggests that state-level racial threat may be more salient when courts consider sentence length. The opposite pattern arose when state-level *ethnic* context was examined—here, the threat effect was pronounced for the incarceration, but not the sentence length, decision. Why?

We speculate that in states with higher percentages of blacks, blacks may have greater social and political resources and influence that may raise public awareness about discrimination and injustice. Legislatures in turn may emphasize or call for more restrained use of imprisonment. By extension, courts may feel a greater need to moderate the use of incarceration. However, given a decision to incarcerate, court actors then may perceive less pressure to exercise moderation in setting sentence lengths.

By contrast, in states with higher percentage of Hispanics, such as Arizona, Hispanics may not wield as much political power and influence. Accordingly, courts may feel less constrained in assigning incarceration as a sanction. As a result, courts may incarcerate, on average, less serious cases and, in turn, subsequently assign shorter sentence terms. These possibilities perforce must remain speculative until data allow for testing them. What remains clear is that, as prior scholarship has highlighted, studies will want to examine racial and ethnic groups separately when testing arguments derived from the minority threat perspective (see Feldmeyer and Ulmer 2011; Ulmer 2012; Wang and Mears 2010a,b).

Second, state-level racial context amplified the threat effect of county-level racial context only after a threshold was crossed, and it increased sentencing disparities for black convicted felons in counties characterized by a greater black presence. Thus, black felons appear to experience a "perfect storm" of threat effects—that is, they receive longer sentences because of their race and the effect of race is intensified when they reside in counties and in states with larger black population sizes. This finding reinforces minority threat and focal concerns arguments that identify the centrality of race in American society. From these perspectives, it is not simply that race matters; rather, in some contexts, it may matter more. As this study suggests, multiple contexts can exist that compound the effects of race in sentencing decisions.

Here, however, a question remains: Why was county-level percent black associated with a lower likelihood of incarceration in counties that were below the 25–30 percent black threshold? Absent more detailed information about county-level and statelevel criminal justice operations and processing, we cannot provide a definitive explanation. Here, however, we speculate that as increased numbers of blacks enter an area, greater contact with blacks may lead to increased racial integration and interactions, thus enhancing tolerance, which in turn may reduce sentencing severity. Such a possibility accords with the logic of the contact hypothesis (Allport 1954). Past a tipping point, however, the perception may arise among whites, and possibly minorities as well, that a need for intensified social control exists. Residents may feel that a greater level of minority presence signals an existing or incoming threat to community order and safety (Sampson and Raudenbush 2004), in turn not only reducing tolerance but also increasing calls for concerted efforts, including "get tough" sentencing, to restore order and safety.

<u>Third</u>, the findings here—and the possibility of state-level, county-level, and individual-level interactions—can be used to explain prior mixed research findings regarding the effect of

county-level percent black on sentencing severity. As indicated in Figure 1, the association between county-level percent black and predicted probabilities of receiving a jail or prison depends on state-level percent black. If a study uses data from states that have a small black presence (e.g., 5 percent), it is likely to find that county-level percent black is positively related to predicted probabilities of receiving a jail or prison sentencing. However, if a study uses data from states that have a larger black presence, it is likely to reveal a null finding, especially if a quadratic term is not included, or a U-shaped relationship if a quadratic term is included. In short, the selection of states that have differential distributions of black population size may significantly influence estimated effects of county-level percent black on sentencing severity.

<u>Fourth</u>, the findings from this study suggest that theoretical accounts of sentencing should consider the potential for main and interactive effects that involve state-level, county-level, and individual-level units of analysis. Threat effects at one level of analysis, for example, may amplify threat effects at another level (Stolzenberg, D'Alessio, and Eitle 2004). In particular, future research will want to investigate the possibility that county-level and state-level minority threat processes result in the targeting of minority offenders for more punitive sanctions. Here, a fruitful line of research may be to integrate minority threat theory with other related theories, including focal concerns (Steffensmeier, Kramer, and Ulmer 1998; Steffensmeier and Demuth 2000), the race-out-of-place perspective (Novak and Chamlin 2012), and uncertainty avoidance theory (Albonetti 1991).

<u>Fifth</u>, a growing body of research has argued that changes in minority population size (e.g., Caravelis, Chiricos, and Bales 2011; Feldmeyer et al. 2015; Wang and Mears 2010a) may play a salient role in the minority threat perspective. A focus on change involves examining whether an increase in threat results in an increase in tougher sanctioning. That focus is important, but it also is distinct from the question of whether levels of threat are associated with punitive sentencing. Both lines of research are important. Future research may want to examine how changes in state-level racial and ethnic contexts affect sentencing decisions independently and interactively with changes in county-level racial and ethnic contexts.

Sixth, despite the prominence of the minority threat perspective as a framework for understanding sentencing disparities, it may provide an inadequate explanation of how racial and ethnic contexts influence sentencing decisions (Feldmeyer and Ulmer 2011). In this study, we observed that as county-level black population size increases (up to 25–30 percent), the probability of

incarceration decreases and then, after this threshold, greater concentrations of blacks are associated with increased probabilities of incarceration (see Figure 1). This finding is inconsistent with minority threat arguments. As noted above, one potential explanation stems from research on intergroup contact, which suggests that higher levels of minority presence may lead whites to interact more frequently with minority groups, which in turn may facilitate positive racial attitudes and racial tolerance (Allport 1954; Carsey 1995; Liu 2001; Voss 1996). Accordingly, sentencing severity might well be lower in areas with higher concentrations of minorities. However, after a certain "tipping point," threat processes may arise that lead to greater rather than lesser sentencing severity. The data for this study do not allow for testing this possibility. Yet it seems plausible that different processes may arise at varying levels of minority presence. If so, theories, such as minority threat and contact, will be needed that can identify these processes and the conditions under which they are activated. For example, contact alone is not likely sufficient to engender more positive interracial relationships; rather, the frequency and nature of interactions likely matter and so would need to be modeled (Allport 1954).

Seventh, notwithstanding the strengths of the SCPS data and analysis, the above-identified patterns should be interpreted with caution. One of the major weaknesses of the SCPS data is the lack of information on offense severity and statutory differences across states. As demonstrated by Baumer and Martin (2013: 153), there are significant jurisdictional differences in incarceration and sentence length prescribed for each offense, and these differences may play an important role in generating variation across jurisdictions in sentencing outcomes.

In a related vein, this study highlights the need for research that addresses the complexity of multilevel sentencing research. Two limitations of this study illustrate the challenges. First, states may have different types and amounts of crime on court caseloads. These differences in turn may be related to state-level racial and ethnic contexts. This situation makes it difficult to estimate net effects of racial threat processes and differences in the types of crime that states—and, by extension, state legislatures seek to address. Second, estimates of state-level effects, such as those identified in this study, may arise through mechanisms other than minority threat. For example, as noted above, the differences in sanctioning across states may result from judicial practices. To illustrate, two states may have nearly identical sentencing laws, but the application of the laws by judges in one state may differ from the application of these laws in the other state. Conversely, states may have judges and courts that arrive at

different sentencing decisions because of differences in their sentencing laws. This study was not able to partial out these different possibilities, and future research will face considerable challenges in doing so as well because of limitations in extant data sets. Even so, addressing such challenges will be critical for advancing scholarship on sentencing.

Finally, from a policy perspective, this study's findings echo those of prior work in highlighting the importance of race and ethnicity for sentencing. When race and ethnicity are associated with sentencing decisions even after controlling for legally relevant factors, concerns about fairness and justice arise. These concerns arise as well when social context, such as the extent of minority presence in a given community, influences sentencing decisions. This study's findings do not in any direct way establish that discriminatory sentencing practices exist. They do, however, suggest that greater attention should be directed toward identifying, explaining, and ameliorating minority disparities in the administration of justice.

Appendix A

Hierarchical Regression of Individual-Level Variables and
Contextual Controls on the Incarceration and Sentence
Length Decisions

	Incarceration		Ln sentence	ce length	
	b	s.e.	В	s.e.	
Intercept	1.16**	0.19	2.77**	0.13	
Offender-level factors					
Black	0.20**	0.05	0.02	0.03	
Hispanic	0.23**	0.06	0.01	0.03	
Male	0.34**	0.05	0.26**	0.03	
Age	-0.00	0.00	-0.01**	0.00	
Age ²	-0.00**	0.00	-0.00	0.00	
Criminal justice status	0.32**	0.05	0.13**	0.02	
Criminal history scale	0.53**	0.03	0.34**	0.01	
Multiple arrest charge	0.27**	0.05	0.25**	0.02	
Violent offense	0.15	0.09	0.78**	0.04	
Property offense	-0.37**	0.07	0.08*	0.04	
Drug offense	-0.52**	0.07	0.13**	0.04	
Detention	1.10**	0.05	0.75**	0.03	
Plea bargaining	-0.20*	0.09	-0.89**	0.05	
Year 1998	0.56**	0.06	0.03	0.03	
Year 2000	0.21**	0.05	0.06*	0.03	
County-level controls					
Violent crime rates	0.00	0.00	-0.00	0.00	
Resource deprivation	-0.25	0.18	0.14	0.09	
Percent violent crime	0.02	0.02	-0.01	0.01	
Percent voting for Bush	-0.01	0.01	-0.00	0.01	
State-level controls					
Percent voting for Bush	0.00	0.03	0.03	0.02	

Appendix (Continued)

	Incarceration		Ln sentence leng	
	b	s.e.	В	s.e.
Percent below poverty	-0.02	0.09	-0.03	0.06
Sentencing guideline states	-0.39	0.43	-0.20	0.29
Random effects				
Level-1 intercept	_		1.63	
Level-2 intercept	0.64**		0.13**	
Level-2 intercept χ ²	826.12		599.06	
Level-3 intercept	0.36**	0.28**		
χ^2	62.94		141.24	
N "	17,440		13,179	

Appendix B

Three-Level HLM Random Coefficient Models

	Incarce	Incarceration		nce length
	b	s.e.	b	s.e.
Intercept	1.32**	0.19	2.89**	0.12
Offender-level factors				
Black	0.17**	0.03	0.05	0.04
Hispanic	0.19**	0.06	0.04	0.05
Male	0.41**	0.05	0.25**	0.04
Age	-0.00	0.00	-0.01**	0.002
Age ²	-0.00*	0.00	0.0001	0.000
Criminal justice status	0.47**	0.07	0.01	0.07
Criminal history scale	0.70**	0.07	0.29**	0.04
Multiple arrest charge	0.26**	0.05	0.28**	0.04
Violent offense	0.38*	0.15	0.99**	0.10
Property offense	-0.31**	0.08	0.28**	0.08
Drug offense	-0.20	0.15	0.41**	0.11
Detention	1.24**	0.08	0.64**	0.06
Plea bargaining	-0.27	0.14	-0.55**	0.12
Year 1998	0.66*	0.27	0.04	0.09
Year 2000	-0.07	0.14	-0.01	0.07
Random effects	Variance	χ^2	Variance	χ^2
County-level random effects		70		,,
Level-1 intercept	_	_	1.45	
Level-2 intercept	0.48**	88.48	0.11**	265.79
Black	0.02	5.52	0.01*	13.98
Hispanic	0.05	5.24	0.02*	13.77
Male	0.02	8.11	0.02*	14.93
Age	0.00	8.87	0.00**	19.93
Age ²	0.00*	13.43	0.00*	14.91
Criminal justice status	0.06	7.17	0.01*	14.69
Criminal history scale	0.00	5.22	0.01**	19.28
Multiple arrest charge	0.02	8.63	0.02**	23.96
Violent offense	0.08*	12.80	0.17**	52.90
Property offense	0.16**	18.77	0.05**	20.00
Drug offense	0.16**	24.10	0.06**	29.76
Detention	0.11**	21.16	0.12**	83.29
Plea bargaining	0.27**	16.41	0.30**	75.67
Year 1998	0.48**	15.14	0.12**	55.43
Year 2000	0.39**	31.16	0.11**	51.47

 $^{^*}p{<}0.05;\,^{**}p{<}0.01$ (two-tailed test). N=17,440 defendants for incarceration decision models or 13,179 for sentence length decision models; N=60 counties; N=23 states.

Appendix (Continued)

	Incarceration		Ln senten	ce length
	b	s.e.	b	s.e.
State-level random effects				
Level-3 intercept	0.47**	62.91	0.27**	114.46
Black	0.00	2.75	0.02**	23.42
Hispanic	0.04	12.18	0.03	5.97
Male	0.01	10.08	0.02	8.56
Age	0.00	4.49	0.00*	20.24
Age ²	0.00	4.63	0.00	18.06
Criminal justice status	0.06**	30.26	0.09**	45.49
Criminal history scale	0.07**	92.49	0.03**	31.89
Multiple arrest charge	0.02	10.94	0.01	14.21
Violent offense	0.25**	26.87	0.09**	26.72
Property offense	0.03	5.36	0.07**	39.29
Drug offense	0.27**	51.26	0.17**	59.18
Detention	0.06**	26.47	0.04	17.17
Plea bargaining	0.11	11.53	0.20**	28.54
Year 1998	0.87**	56.89	0.10	15.29
Year 2000	0.16**	34.15	0.04	10.58
N	17,4	40	13,1	79

^{*}p < 0.05; **p < 0.01 (two-tailed test).

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