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Demography of the Legal Profession and Racial Disparities in Sentencing

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The demography of the legal profession has changed rather dramatically in recent decades, yet the consequences of a more racially and ethnically diverse pool of lawyers for the administration of justice have not received significant attention. The present research examines how the racial composition of the local legal profession affects one facet of criminal law: the sentencing of convicted defendants. Building on prior work in the fields of law, stratification, and mobility, we hypothesize that racial and ethnic disparities in sentencing are mitigated where the legal profession is more diverse. In line with this hypothesis, analysis of data from a sample of large urban counties taken between 1990 and 2002 shows that the black-white racial disparity in sentencing attenuates as the number of black attorneys in the county increases, net of the percent black in the county and other possible confounding variables. Comparable results are found for Hispanics. The findings are discussed in the context of a demographically changing legal profession and prior work on racial disparities in the justice system.

With the legal profession now more racially and ethnically diverse than at any point in U.S. history, a seemingly important question for the study of law and society is whether this demographic change has consequences for the administration of justice. Yet surprisingly little research to date has examined this issue. The sociolegal literature is well stocked with introspective studies about the changing nature of the legal profession and the transformation of legal practice (Abel 1989; Cappell 1990; see Heinz et al. 2001 for a review). In addition, research continuously documents

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demographic changes with respect to race and gender (EEOC 2003; Nelson 1994), and prior work examines the implications of racial diversity for law school education (Orfield & Whitla 1999). As such, the literature is replete with studies of demographic change and stratification in the legal profession, but researchers know very little about the implications of a racially diverse bar for dispute resolution and criminal case dispositions.

The dearth of research on this issue is symptomatic of a more general paucity of empirical work on the consequences of historically underprivileged groups attaining positions of power. As Cohen and Huffman (2007:681) suggest, research to date has been mostly silent on a "provocative and inherently sociological question: What happens to the status of a subordinate group when some of its members attain positions from which they might reduce inequality?" In this vein, Cohen and Huffman (2007) show that the gender wage gap decreases as the proportion of women in management in a local industry increases. Their conclusion is congruent with a burgeoning body of work on gender and the legal profession that suggests women are more apt than men to fill law firm vacancies with other women (Gorman 2005; see also Beckman & Phillips 2005). Hence, there is mounting evidence that the gender composition of the workforce attenuates gender discrimination in wages and mobility, yet researchers know little about the implications of the racial composition of professions for a range of outcomes, including racial disparities in criminal punishment.

There are reasons to suspect that the structure of the legal profession is consequential for law enforcement and criminal justice outcomes. As Nelson (1994:346) aptly states,

> The character of justice in American society is related fundamentally to the social organization of American lawyers. . . . Lawyers are very often key players in designing and activating the institutional mechanisms through which property is transferred, economic exchange is planned and enforced, injuries are compensated, crime is punished, marriages are dissolved, and disputes are resolved. The ideologies and incentives of the lawyers engaged in these functions directly influence the lived experience of Americans, including whether they feel fairly treated by legal institutions.

In this same spirit, Nelson (1988:368) points out that "if race, gender, and social class are determinants for entry into the profession and for the attainment of certain positions within the profession, it may imply that these same attributes affect the sorts of treatment individuals will receive by legal institutions, in part because they do not have access to lawyers who share a similar social background." The latter claim is tenable but largely untested,

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although some related work in this general area of inquiry is consistent with the premise that sanctioning is partly determined by the race of law enforcers. Research on policing, for instance, finds that the racial demographics of police forces affect the racial pattern of arrests (Donohue & Levitt 2001). Still, the precise implications of a racially diverse pool of lawyers for other legal outcomes are not well understood.

In the present research we investigate to what extent the demography of the legal profession has implications for one aspect of justice: criminal sentencing. In doing so this research speaks to a number of salient themes germane to criminal law and the legal profession. Most notably, why are racial and ethnic disparities in sentencing more pronounced in some counties than others? Racial disparities in sentencing are sizeable in some places but seemingly nonexistent elsewhere, yet prior work on this topic has largely focused on racial demographics of the county as opposed to the racial composition of lawyers in a local area. Moreover, extant work in this vein has yielded equivocal results. One line of research concludes that nonwhites are treated more harshly than whites in counties with larger nonwhite populations (Bridges et al. 1987). A second line of work suggests nearly the opposite (Myers & Talarico 1986), and still a third body of research finds no evidence that county demographics have any significant impact on the association between a defendant's race and sentencing outcomes (Britt 2000).

We approach the issue of racial disparities in sentencing from a different angle. Whereas prior research largely examines whether case dispositions are affected by macrolevel demographic factors such as the percent black (or nonwhite) and the unemployment rate in the county, we call attention to the demographics of the local legal profession. We further suggest that prior work on discrimination in local industrial sectors offers a useful set of propositions that inform the study of sentencing.

In the following section we summarize prior research on race and sentencing. We then describe our theoretical rationale for focusing on the racial composition of the legal profession as a determinant of sentencing disparities. Thereafter, we discuss the data, methods, and findings from our research.

Racial and Ethnic Disparities in Sentencing

Research on criminal sentencing often focuses on racial disparities. However, empirical findings in this area remain "inconsistent" (Steffensmeier & DeMuth 2000:706). One line of work acknowledges that racial differences in sentencing or other sanctioning

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outcomes may exist but are largely attributable to the defendant's prior record or the severity of the offense (Kleck 1981; Weidner et al. 2005:416; Wilbanks 1987). Another body of research, however, finds that blacks and Hispanics are on average treated more harshly than whites even when controlling for prior record and offense severity (Albonetti 1997; DeMuth & Steffensmeier 2004; Fearn 2005; Steffensmeier & DeMuth 2000). These conclusions are balanced by a third body of work suggesting that the race-sentencing nexus is more nuanced. Britt (2000), for instance, finds that blacks are more likely to be sentenced to prison, but among those receiving prison sentences blacks tend to receive shorter sentences than nonblack offenders.

One plausible reason for these inconsistent findings is that scholars often rely on samples from different geographic areas. It is arguably for this reason that recent work gives less attention to *whether* race matters and increasingly emphasizes *where and when* race matters. To that end, empirical work often employs multilevel models that simultaneously consider attributes of the geographic area (e.g., county) and characteristics of defendants. Still, this body of research also yields equivocal findings. One line of work suggests that minorities are sentenced more punitively in places with larger nonwhite populations. For instance, Bridges et al.'s (1987) research from Washington State shows that nonwhites are more likely to receive a sentence of incarceration in counties with larger nonwhite populations. Likewise, Bontrager et al.'s (2005) study of withholding adjudication in Florida finds that blacks and Hispanics are treated more punitively as concentrated disadvantage, a composite indicator that includes black population size, increases (see Crawford 2000 for related argument). Studies from other states reach comparable conclusions. Ulmer and Johnson (2004:165) argue that in Pennsylvania "the effect of being black [on sentence length] was significantly larger in counties with a larger percentage of black residents, and similarly, that the effect of being Hispanic was significantly larger in counties with higher percentages of Hispanic residents." They add that county-level demographics largely account for differences in sentence length between counties.

Yet a second body of research indicates that it is whites, not racial minorities, who are subject to harsher treatment where the nonwhite population is disproportionately large. In an analysis of race and incarceration in Georgia counties, for instance, Myers and Talarico (1986) show that whites are more likely to receive a sentence of incarceration in mostly black counties than in counties with smaller black populations. Related work in neighboring Florida reaches a comparable conclusion, where blacks are treated more harshly than whites where the black population is smaller (Crawford et al. 1998).

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Finally, a third set of studies finds no evidence of a significant interaction effect between county demographics and a defendant's race. Britt (2000) concludes that defendants in counties with larger black populations are more likely to be incarcerated (see also Weidner et al. 2005), yet the effect of a defendant's race is not contingent on county racial demographics. In addition, Ulmer and Johnson (2004) find no interaction effect between percent black in a county and a defendant's race on the decision to incarcerate.

That the empirical research in this area reaches such divergent conclusions suggests the need for further inquiry and perhaps that greater attention be given to factors other than county demographics. We offer an alternative hypothesis that deemphasizes racial demographics of the county in favor of the racial composition of the local legal profession.

Demographics of the Local Legal Profession and Consequences for Criminal Sentencing

We draw theoretical insight from prior work in the respective fields of law and workplace stratification and mobility. Taken together, these literatures suggest direct and indirect paths through which discrimination against minority groups attenuates when and where minority representation is higher in an organization or local industrial sector.

One informative line of work in the sociology of law suggests that members of a given racial group are unlikely to discriminate against others of the same race. This argument factors prominently in Black's (1976) propositions concerning law and cultural distance. For Black, cultural distance largely refers to the degree of heterogeneity—e.g., based on religion or ideology—within a social setting (Black 1976:74). Race and ethnicity, viewed as social classifications of their own or as proxies for ideology, can also be interpreted as measures of cultural distance between people, thus having implications for case dispositions and the severity of punishment. The key notion for Black is that the extent to which law is enforced, e.g., as measured by the severity of punishment, increases with the cultural distance between disputants or third parties involved in legal proceedings. For example, Black would predict that a person is less apt to call the police on someone of the same ethnicity than on someone of a different ethnicity. More pertinent to the present research, cultural distance between officials (e.g., attorneys or judges) and citizens (e.g., criminal defendants) follows the same logic. As Black (1976:77) illustrates, "In an American city, an Italian official is more likely to be lenient with an Italian, a Puerto Rican with a Puerto Rican, a Jew with a Jew.

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Scramble these, and law increases, whether by arrest, a judicial finding, or a parole decision.''

This notion finds some support in prior research. For example, in Engel's account of the small and largely homogeneous ''Sander County,'' most residents shun litigation for resolving disputes between culturally similar disputants. Yet for ''outsiders,'' nonlegal forms of conflict resolution appear hopeless (e.g., Engel 1984:569). Social and cultural distances, according to Engel, are conducive to litigation. Other work on criminal law reaches similar substantive conclusions with respect to race and law enforcement. Donohue and Levitt (2001) find that cities with more white police officers have more arrests of nonwhites, and having more nonwhite police increases arrests of whites. Research on the race of judges and their sentencing practices makes a similar argument. B. Johnson (2006), for example, finds that nonwhite judges are less likely to incarcerate nonwhite defendants.

Much of this work either implicitly or explicitly assumes a penchant for in-group favorability, or a tendency to bestow rewards upon members of the same race. With respect to criminal sentencing, one reason why diversity in the legal profession would mitigate sentencing disparities is because nonwhite defendants have a higher likelihood of encountering nonwhite decision makers such as judges, prosecutors, and defense attorneys. The latter would presumably be less inclined to discriminate against defendants of the same race.

As with the sociolegal literature, theory and research in the area of stratification and mobility also suggests reasons for focusing on the racial composition of attorneys. This line of work often emphasizes the importance of numeric representation of minorities in an organization or industrial sector for minority hiring and promotion. One influential line of research in this vein extends from Kanter's (1977) seminal work on minority representation in organizations. Kanter, who largely focused on gender but clearly saw her work as applicable to other underrepresented groups in professions, suggests that the distribution of rewards in an organization will increasingly favor minority groups as their numeric representation in the organization increases. In Kanter's research, ''token'' women in the organization are outsiders and incapable of changing organizational culture because of their small numbers. Kanter (e.g., 1977:209, 211) posits that a stronger minority presence can affect the culture of a group, balance the reward structure, and minimize stereotyping. Empirical examinations of Kanter's propositions indeed demonstrate an effect of ''strong minority presence'' on hiring and promotion decisions, for instance by showing that minority representation among partners in law firms increases the hiring of minority associates (Chambliss & Uggen 2000).

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Research on stratification and mobility often discusses the distribution of "rewards" with reference to wages, hiring, and promotion, although the underlying sentiment would presumably apply to other types of decisionmaking as well. The absence of minority representation in a profession may permit decision makers to unobtrusively act on stereotypes and assumptions about race and criminality. One can see some indirect evidence of this in existing work on sentencing. For example, in their multimethod analysis of sentencing in three Pennsylvania counties, Ulmer and Kramer (1996:399) find that white defendants were sentenced less harshly in "Rich County" with its "all-white bench and district attorney's office." With respect to racial disparities in sentencing, one judge in this county explained, "You are reluctant to send white offenders to prisons that are largely black. It seems the prisons are becoming more and more black, and judges are leery because they have heard horror stories about things that have happened, violence and whatnot" (Ulmer & Kramer 1996:400). One might think of leniency for white defendants in this case as a type of reward bestowed upon in-group members. Following Kanter (1977), it is plausible that a more racially diverse pool of attorneys would balance the distribution of such rewards and reduce such reliance on "horror stories" and other stereotypes.

Taken together, these respective literatures suggest two mechanisms through which the racial demographics of professions are consequential for discriminatory outcomes. The first involves direct contact. The probability of minority defendants encountering minority lawyers increases where there are more minority attorneys in a local area. Given the penchant for in-group favorability discussed above, intragroup client-attorney dyads would likely entail less discriminatory treatment than intergroup dyads. Second, extant research suggests indirect channels through which diversity in a profession can temper discrimination, for instance by changing the culture of an organization or entire sector of employment. This idea is evident in the work of Kanter (1977) and is equally pronounced in more recent scholarship on gender. For instance, Kulis (1997:154) suggests that the presence of women administrators may "change organizational culture such that evident forms of institutionalized discrimination are not tolerated." Cohen and Huffman (2007) similarly conclude that support for gender equity is likely to increase where women are better represented in the management structure of local industries. There is considerably less empirical work on the association between *racial* diversity and changes in organizational culture, although we draw on the larger body of research on gender to suggest a similar scenario for the case of race and discrimination in the criminal justice

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system.[1] Analogous to gender, minority representation in the legal profession may elevate consciousness of racial disparities and thus keep the issue in the minds of decision makers in the adjudication process. Orfield and Whitla (1999) make a comparable argument for the case of diversity in law school education. They find that alternative perspectives on race and law are more frequently discussed where there is diversity in the classroom. Consistent with this insight, attorneys are likely more attuned, or at least exposed, to discussions of racial disparities in the justice system when and where there is greater diversity in the legal profession. One implication of this claim for the justice system is that sentencing disparities would be lower where the proportion of minority attorneys is higher.

Before moving on, we should clarify our rationale for focusing on the demographics of the local legal profession as opposed to specifically concentrating on the percentage of minority judges. We do so for two reasons. First, and consistent with the notion of intragroup contact discussed above, the vast majority of cases are decided via plea negotiations, particularly negotiated pleas.[2] These typically involve interaction between attorneys in which a formal charge and sentence are negotiated between the attorneys and the judge. The attorneys thereby play a significant role in this process. Second, to the extent that the indirect mechanisms are at play, such as changes in local legal culture, it is instructive to examine the demographics of the legal profession more broadly because attorneys, and not only judges, are likely to influence the local legal culture.

An Alternative Hypothesis

Although we suggest a clear directional hypothesis above, we also cite several reasons for expecting no effect of minority representation in the legal profession on sentencing disparities. For one, to the extent that discrimination is institutionalized and members of a profession conform to existing norms, the demographics of the local legal profession may be of little consequence. From a Weberian perspective on bureaucracy, we might suggest that the office or the position supersedes characteristics of the individual.

[1] Others have also noted the paucity of work on racial diversity relative to gender diversity. For instance, in their discussion of extant work on the contributions of culturally underrepresented groups in organizations, Ely and Thomas (2001:233) cite a number of studies on gender, noting that "the parallel case for racial diversity in organizations is less well developed."

[2] B. Johnson (2003: Table 2), for instance, finds that negotiated pleas far outweigh nonnegotiated pleas and trials. Moreover, attorneys (namely, prosecutors) play a more significant role in these types of pleas than judges.

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This general argument finds some support in the literature on law enforcement. For instance, in their investigation of racial profiling, Barlow and Barlow (2002:338) quote a police officer who stated that he stops and questions African Americans "because it is precisely what his supervisors want him to do." In other words, the practice of profiling is sufficiently institutionalized to the point where front-line officers are unlikely to question prevailing norms. Some black police officers even admitted that they practice racial profiling and see it as a "necessary and legitimate tool for police officers" (Barlow & Barlow 2002:349). Hence, if law enforcement practices are highly institutionalized, then entrenched norms may supersede any effect of minority representation in the local legal profession. There is, in fact, some support for this notion in the literature on judges and sentencing. Prior work finds "remarkable similarities" (Spohn 1990:1197) between black and white judges (see also Walker & Barrow 1985), although extant work is less informative about the question of racial diversification among attorneys more generally. Moreover, having a minority attorney could work against a minority defendant (Bell 1973:196–7; Mann 1988; Russell 1997), particularly at a jury trial (Cohen & Peterson 1981).

In addition, minority attorneys may be poorly positioned to influence decisionmaking if they do not hold positions of power within the legal profession. This argument rests on a strong foundation with respect to the positions that minorities typically hold in the legal profession (Cappell 1990; EEOC 2003; A. Johnson 1997). To the extent that minorities disproportionately represent what Hagan et al. (1988) might label "the working class" of the legal profession, their numbers may have little impact on justice outcomes.

Data, Variables, and Methods

Data

Our data are from the 1990–2002 biannual waves of the State Court Processing Statistics Survey of Felony Defendants in Large Urban Counties (SCPS, hereafter). The SCPS survey is administered during the month of May in even-numbered years in approximately 40 of the 75 most populous counties in the United States. For each county, felony cases filed during the month of May are tracked until final disposition or until one year elapses. The survey captures a sizeable proportion of criminal cases processed in a given year because the sampling frame (75 largest counties) accounts for a third of the U.S. population and half of the reported crimes in the country. The seven waves (1990 through 2002) used

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in the present research include information on nearly 103,000 case dispositions. Since our analysis focuses on sentencing, we restricted the data to cases in which the defendant was ultimately charged and convicted. After listwise deletion of missing cases, our respective analyses are based on more than 50,000 cases.

The SCPS data include rich information on a number of case characteristics, including demographic characteristics of defendants such as sex, age, and race. In addition, we were able to control for the two most salient determinants of sentencing: criminal history and offense severity. The data could also be merged with county-level census and U.S. Department of Justice data using Federal Information Processing Standards codes to incorporate county-level variables of interest.[3]

Dependent Variables

Consistent with much prior work on sentencing (e.g., DeMuth & Steffensmeier 2004; B. Johnson 2006; Ulmer & Kramer 1996; Wheeler et al. 1982), we measured sentencing severity with two indicators. The first outcome variable was a dichotomous indicator of whether the convicted defendant received a sentence of incarceration, be it jail or prison, as opposed to probation, time in an explicit treatment facility, or other non-incarceration sentence.[4] Our second dependent variable measured the length of the sentence in logged months. Defendants receiving probation or an alternative to incarceration were coded zero. We retained the original coding for defendants receiving life sentences (coded as the log of 11,952 months) or death sentences (coded as the log of 13,020 months). We are mindful that these cases are outliers and thus further skewed the distribution when including them. However, models for sentence length that omitted these few cases yielded consistent results.

[3] We omitted county-years with apparently problematic data on the prior conviction variable. In five county-years—Erie County, NY, in 1996; Cook County, IL, in 1990 and 1998; Salt Lake County, UT, in 1990; and Suffolk County, NY, in 1996—there was substantial missing data or questionable coding on the prior conviction variable. Although we excluded cases from these county-years from the present analysis, the results were consistent with respect to direction, magnitude, and statistical significance of the coefficients when including these county-years.

[4] There is some debate in the sentencing literature as to whether jail and prison sentences should be combined into a single incarceration measure or whether they should be modeled separately (Holleran & Spohn 2004). We combined them in this analysis for two reasons. First, we were interested in the decision to deprive the defendant of his or her liberty, which can be achieved by commitment to jail or prison. Second, prior research using the SCPS data finds no difference in the effect of race or ethnicity on jail or prison sentences (relative to a non-incarceration sentence such as probation; see DeMuth & Steffensmeier 2004:1002). Other recent research using other data reaches comparable conclusions with respect to the measurement of total incarceration as related to race and ethnicity (Harrington 2008; B. Johnson 2006).

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Focal Independent Variables

Our two focal predictor variables were the race of the defendant and the racial composition of the local legal profession. With respect to the former, the SCPS survey includes separate variables for race and ethnicity, which we combined to create a single indicator consisting of four categories: white, black or African American, Hispanic or Latino, and an "other" category consisting of groups with smaller populations in the SCPS data (e.g., Asian, American Indian, Pacific Islander). In this coding scheme our Hispanic or Latino category consisted entirely of defendants who identified with an ethnicity (Hispanic or Latino) but not a racial category.[5]

To measure the racial composition of the legal profession in the county we obtained occupational data disaggregated by race and ethnicity for 1990 and 2000 from the EEOC Supplement (via the U.S. Census and the Interuniversity Consortium for Political and Social Research). This special tabulation is based upon the number and percentage of employees who work in counties with a population of 50,000 or more. The purpose of these data is to assist employers in completing required Affirmative Action Plans that need to be submitted to the Office of Federal Contract Compliance. We measured the percentage of blacks and Hispanics, respectively, employed as lawyers in the public and private sector in the county. We interpolated figures for years between censuses (1992, 1994, 1996, and 1998) and extrapolated for 2002.

Before discussing other variables used in the analysis, we note a few limitations in the data with respect to race and the legal profession. First, we could not control for the race of the judge or characteristics of the prosecuting and defense attorneys involved in a given case. Unfortunately, this information is not included in the SCPS survey. Although we would certainly have preferred to have such data at hand, we did not see this as a substantial limitation in our research for two reasons. First, and as noted above, much prior research finds that judge's race has only a marginal, if any, effect on sentencing decisions (Farrell et al. 2009; Spohn 1990; Uhlman 1978; Walker & Barrow 1985; but see B. Johnson 2006), and thus we saw utility in exploring other contextual factors, namely the role of nonjudicial actors, that might account for racial disparities in sentencing. Second, much prior work investigating characteristics of court actors generally rely on data from a single court (e.g., Spohn 1990; Uhlman 1978) or a single state (e.g., B. Johnson 2006), while the data used in this analysis allowed us to look at a

[5] We did this because of the relatively small number of respondents who identified as black-Hispanic or other-race-and-Hispanic. In fact, the majority of Hispanics and Latinos in the SCPS data did not select a racial category.

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diverse sample of counties from across the United States. Hence, our approach sacrificed some precision with respect to measurement but enabled us to incorporate variables infrequently utilized in sentencing research and test them for a large and diverse sample of U.S. counties. A second limitation is that the EEOC data did not allow us to specify the type of law practiced by attorneys (e.g., divorce, tax, civil litigation, criminal). However, we felt that the percentage of black and Hispanic attorneys in the county was a reasonable proxy for their respective proportions working in the area of criminal law. To the extent that measurement error existed, our estimates likely underrepresented the proportion of minority attorneys working in the realm of criminal law.[6]

Control Variables

When examining the association between race and sentencing, we controlled for several other characteristics of the defendant, case, and county that were likely to affect sentencing. At the case and defendant level, we controlled for sex (male coded 1) as well as age and age-squared. We included the latter term to capture nonlinearity in the age effect. In addition, a dummy variable indicated whether the defendant was found guilty at trial (as opposed to a guilty plea), since defendants may pay a "trial tax" at sentencing if found guilty. We also controlled for offense severity and prior convictions, arguably the two strongest determinants of sentencing. Total number of prior convictions was top-coded at 10 and thus ranged from 0 to "10 or more." We measured offense severity by a series of 18 dummy variables indicating the most serious conviction charge.[7]

[6] Research on race and legal practice suggests that minority lawyers are more likely than whites to begin their careers in government and public interest law (which includes public defenders) and less likely to enter private practice and judicial clerkships after law school (Cappell 1990; Chambliss 2004; Hull & Nelson 2000; Lempert et al. 2000; National Association of Law Professionals 2006). While no national data on the distribution of minority lawyers beyond their first job exist, survey data indicate that minority-white patterns of employment persist after initial employment (Chambliss 2004; Olsson & Kim 2006), with work in criminal law, personal injury, and family law particularly likely (Segal 1983).

[7] The eighteen charges were as follows: robbery (omitted as the reference category), murder, rape, assault, other violent crime, burglary, larceny-theft, motor vehicle theft, forgery, fraud, other property offense, drug sales, other drug offense, weapons offense, driving-related offense, other public-order offense, unknown felony offense, or misdemeanor. We acknowledge some limitations with our measures of criminal history and offense severity. For instance, our prior conviction variable did not differentiate between types of convictions (e.g., violent offenses, drug offenses). In addition, the offense severity variables did not capture the severity within a given offense category. For example, the category *robbery* might include cases with serious injury to the victim along with offenses entailing only minor injury. The latter issue would only bias our findings if nonwhite offenders had a greater proclivity to induce injury during an offense, although recent research casts some doubt on this possibility (see D'Alessio & Stolzenberg 2009 on injury to

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We also controlled for several county-level indicators thought to be associated with sentencing. For instance, we accounted for the percent black and the percent Hispanic in the county. Given regional variation in sentencing practices and historic race relations, we also included a dummy variable indicating whether the county is located in the southern census region. These demographic measures were taken from the decennial censuses in 1990 and 2000. We collected annual population data for the inter-census years, as well as the 2002 county racial composition, from archived population estimates reported in the People and Households section at the U.S. Census Web site (http://www.census.gos/popest/archives). In addition, we controlled for two economic measures. We calculated the Gini index of income inequality for 1990 and 2000 using household income data from the census.[8] We interpolated for the years between censuses and extrapolated to estimate the value for 2002. The unemployment rate was also included as a county-level control variable. We took these data from the Bureau of Labor Statistics annual estimates for U.S. counties. Beyond these demographic and economic indicators, our models also controlled for the degree of political conservatism in the county based on the percentage of votes cast for the Republican candidate in the most recent presidential election (e.g., the percent voting Republican in 1996 was used for 1996 and 1998). We took the latter data from the Elections Research Center's Congressional Quarterly *America Votes* publications. In addition, we controlled for the index crime rate per 100,000 in the county using county-level offense data from the Uniform Crime Reports in even-numbered years between 1990 and 2002. Descriptive statistics for all variables are reported in Table 1.

Modeling

We employed three different estimators to assess the impact of defendant and county-level characteristics on criminal sentencing. Our first set of models assessed the effects of our predictor variables on the decision to incarcerate. In this case we employed hierarchical linear modeling (HLM; see Bryk & Raudenbush 1992)

victims in interracial rape and robbery offenses). The absence of highly detailed offense data is not unique to our analysis. As DeMuth and Steffensmeier (2004:1008) note, this issue "typifies research on sentencing outcomes" using nonfederal sentencing data. We note, however, that our findings with respect to defendant's race and sentencing outcomes were largely consistent with studies using federal data that include more detailed offense information.

[8] To calculate the Gini index, we first generated income share categories to represent the proportion of total households that are in each category. We then expanded the dataset into a household-level file by creating an observation for each household within each income category. The index was then generated using the *ineqdec0* procedure in Stata.

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Table 1. Descriptive Statistics

	N	Range	Mean	SD
Dependent variables				
Incarcerated	55,126	0–1	0.72	0.45
Sentence length (logged)	54,257	0–9.47	1.83	1.63
Defendant and case characteristics				
White	58,115	0–1	0.38	0.49
Black	58,115	0–1	0.46	0.50
Hispanic	58,115	0–1	0.14	0.35
Other race	58,115	0–1	0.02	0.15
Age	59,165	13–90	29.93	9.68
Male	59,193	0–1	0.84	0.37
Prior convictions	56,015	0–10	2.74	3.27
Trial	59,024	0–1	0.06	0.25
Offense type	59,271			
Murder		0–1	0.005	0.07
Rape		0–1	0.01	0.09
Robbery		0–1	0.07	0.26
Assault		0–1	0.06	0.24
Other violent offense		0–1	0.03	0.17
Weapons offense		0–1	0.03	0.17
Burglary		0–1	0.07	0.26
Forgery		0–1	0.02	0.15
Fraud		0–1	0.02	0.13
Larceny-theft		0–1	0.08	0.27
Motor vehicle theft		0–1	0.03	0.16
Other property offense		0–1	0.04	0.20
Drug sales		0–1	0.15	0.36
Other drug offense		0–1	0.15	0.36
Driving-related		0–1	0.03	0.17
Other public-order offense		0–1	0.02	0.15
Misdemeanor		0–1	0.20	0.40
Unknown offense		0–1	0.004	0.06
County-level variables	272			
% black		0.74–66.22	18.14	14.21
% Hispanic		0.49–80.69	16.11	14.72
% black lawyers		0–16.83	4.98	4.14
% Hispanic lawyers		0–46.08	4.39	5.64
Crime rate		1,231–13,429	6,367	2,348
Gini index		0.35–0.54	0.44	0.03
% voting Republican		9.1–67.7	38.09	12.17
Unemployment rate		1.60–13.20	5.63	2.08
South		0–1	0.33	0.47

Note: In five county-years—Erie County, NY, in 1996; Cook County, IL, in 1990 and 1998; Salt Lake County, UT, in 1990; and Suffolk County, NY, in 1996—there were substantial missing data or questionable coding on the prior conviction variable. After listwise deletion our effective sample size was 50,243 for the analysis of sentence length and 51,014 for the in-out decision.

because we had an outcome variable with cases nested within counties.[9] A simple (logistic) regression model would be inappropriate in this case because of the nested data structure. Cases adjudicated in the same county are likely to share similarities with respect to their disposition and thus we could not readily treat them as independent. Nonindependence, in turn, increases the risk of correlated error within counties and heightens the probability of falsely rejecting a null hypothesis. HLM is designed, in

[9] These models were estimated using HLM 6.06 (Raudenbush et al. 2004).

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part, to address this issue by taking into account dependence among cases within the same unit, organization, or in this case, county (Bryk & Raudenbush 1992).

HLM is also useful for assessing cross-level interactions. Our data consisted of variables measured at two levels—case and defendant characteristics (level 1) and county characteristics (level 2)—and our theory posited that the effects of some level 1 factors on sentencing were contingent on level 2 covariates such as the demographics of the legal profession. HLM allowed us to treat the regression slopes from an initial model as outcomes and then assess whether the race coefficient significantly varied based on selected level 2 covariates. Our focus here was on the interaction between the defendant's race and the demographics of the legal profession and thus we allowed the race/ethnicity of the defendant coefficient to vary across counties. Since the "in-out" sentencing decision in this model was dichotomous, we specified a Bernoulli distribution with a logit link function.[10]

The model described above was fairly straightforward, and prior work has frequently employed HLM when modeling the decision to incarcerate. However, model specification for sentence length entailed additional complications. Many of the same issues described above, such as the nested nature of the data and the risk of correlated errors, still applied to our analysis of sentence length. Yet this variable involved additional complications because of its distributional properties. Sentence length was effectively zero for defendants receiving probation or another alternative to incarceration. These cases were in effect left censored, and it follows that the distribution of the outcome variable was not normal. Researchers typically deal with distributions of this type by employing a tobit estimator. Tobit models are suitable for truncated variables because the estimator accounts for both the probability that the outcome variable exceeds zero and the mean value of the outcome variable as adjusted by covariates. The difficulty for the present analysis was that the HLM software (Raudenbush et al. 2004) does not allow for a tobit specification. We thus specified a different type of multilevel model: a random effects tobit model.[11] Random effects models are often utilized in the analysis of nested data—for instance, when time points are nested within persons or countries. Important for the present data structure, the random effects model includes an error term with two components. One component represents the traditional error term unique to each observation and a second represents the difference between the intercepts of the

[10] Continuous predictor variables were grand-mean centered in all models unless otherwise noted.

[11] The model was estimated using *xttobit* in Stata.

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cross-sectional units and the overall intercept (Kennedy 1998). The random effects tobit model is thus well suited for both the distribution of the outcome variable and the nested nature of the data. We included product terms for race of the defendant and selected county-level variables to assess the significance of cross-level interactions.

Two additional points about the modeling are noteworthy. First, we report the results of an additional set of fixed effects models. As discussed above, we hypothesized that the effect of race on sentencing is contingent on the racial composition of attorneys in the county. Yet one could argue that the effect is spurious. That is, some counties may be particularly sensitive to racial injustice and are more apt to take proactive measures to eradicate racial discrimination, perhaps through affirmative action in the legal profession or oversight and scrutiny of sentencing disparities. This orientation may lead to both more nonwhites in the legal profession and less discrimination in sentencing. One method of minimizing such unit-specific propensities is to fix the county effect, which allows for an assessment of within-unit change. This was possible with the SCPS data because every county in the sample was included during two or more years, even if some counties were sampled more frequently than others. We could exploit the quasi-panel nature of the data to employ a fixed effects model. If the cross-level interaction coefficients and standard errors for race and demographics of the legal profession remained consistent in this model, then we could say with greater confidence that the effects were not simply the result of an underlying and unobserved county-level propensity to purge discrimination from the courts.

Second, and as one might expect, the percent black in a county was positively correlated with the percentage of black attorneys ($r = 0.79$) and the percent Hispanic is positively correlated with percentage of Hispanic attorneys ($r = 0.84$). Such a degree of collinearity is clearly a source of concern and warranted careful attention.[12] We addressed this issue in two ways. First, we estimated an OLS model (results not shown here) for sentence length in order to generate variance inflation factors (VIFs). The scores for the measures of percent black (VIF = 7.85), percent Hispanic (VIF = 6.81), percent black in the legal profession (VIF = 4.35), and percent Hispanic in the legal profession (VIF = 3.41) were all below the generally accepted threshold level of 10. Second, and of greater significance, we estimated various models that omitted one

[12] We also point out that collinearity is inherent to this type of analysis. That is, an analysis of demographics of the legal profession would be suspect if it failed to control for general demographic characteristics of the county. At the same time, it is inevitable that the two variables would be highly correlated.

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or the other of the correlated indicators to assess whether the magnitude of the coefficients or the standard errors changed appreciably. It is important that we found no meaningful change in the cross-level interactions between race of the defendant and percentage black or Hispanic in the legal profession when including or omitting the control variables for black population size and/or Hispanic population size. The interaction coefficients for analyses of sentence length (discussed below) were also consistent when we included or omitted the county racial demographics as control variables. We footnote where we found differences for other variables in the models.

Results

The Incarceration Decision

We first present the HLM results for the decision to incarcerate in Table 2.[13] We report the results in a single model that estimated main effects for the control variables and cross-level interactions for the *black defendant* and *Hispanic defendant* variables. We also note that the county-level covariates were race-specific for the cross-level interactions. That is, we tested if the coefficient for black defendant varied by percent black and percentage of black lawyers, and if the Hispanic defendant coefficient varied based on percent Hispanic and percentage of Hispanic lawyers.

The coefficients in the upper portion of the table indicate that several county-level factors were significantly associated with the likelihood of receiving an incarceration sentence, net of the level 1 covariates. For instance, the odds of incarceration were higher where the respective black ($b = 0.032$) and Hispanic ($b = 0.079$) populations were larger. Conversely, the odds of receiving an incarceration sentence were lower where the percentage of black attorneys ($b = -0.059$) and Hispanic attorneys ($b = -0.128$) in the county was high.[14] Income inequality was also inversely associated

[13] We report the results of the unit-specific models with robust standard errors. Results were consistent for the population-averaged models. It is also noteworthy that tests of variance components indicated significant differences in the effect of race on an incarceration sentence across counties (for blacks and Hispanics relative to whites). We do not discuss the variance components at length here because in some ways they are irrelevant for purposes of our article. We were interested in testing a specific theoretically derived hypothesis that entailed a cross-level interaction. As Snijders and Bosker (1999) note, researchers should proceed with the cross-level interaction regardless of the random slope variance if there is a theoretical argument to be tested with the interaction. They further note (1999:75) that the significance test in the interaction model is of "considerably higher power" than the corresponding test for the random slope.

[14] We are cautious about the interpretation of these intercepts. As mentioned above, we ran additional models that omitted selected variables that demonstrated high levels of collinearity. These results indicated that the intercept for percent black (top part of Table 2)

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Table 2. HLM Cross-Level Interaction Coefficients for Decision to Incarcerate ($N = 51{,}014$)

	Coefficient	Standard Error
Intercept	1.818***	0.114
% black	0.032*	0.012
% Hispanic	0.079***	0.010
% voting Republican	−0.010	0.007
Unemployment rate	−0.043	0.041
Crime rate	−0.000008	0.00003
% Hispanic lawyers	−0.128***	0.022
% black lawyers	−0.059*	0.029
Gini coefficient	−16.701***	3.412
South	−0.139	0.169
Black (intercept)	0.253***	0.035
% black	0.004	0.004
% voting Republican	−0.002	0.003
Unemployment rate	0.007	0.018
Crime rate	−0.00004**	0.00001
% black lawyers	−0.027*	0.013
Gini coefficient	0.121	1.248
South	0.120	0.068
Hispanic (intercept)	0.368***	0.071
% Hispanic	−0.003	0.007
% voting Republican	0.003	0.005
Unemployment rate	0.021	0.026
Crime rate	−0.00007**	0.00003
% Hispanic lawyers	−0.002	0.015
Gini coefficient	0.475	2.619
South	−0.193	0.177
Other race	−0.025	0.086
Male	0.487***	0.031
Prior convictions	0.214***	0.005
Age	0.037***	0.006
Age squared	−0.0006***	0.00009
Trial	0.268***	0.054

*$p < 0.05$, **$p < 0.01$,***$p < 0.001$.

Note: The models also control for the type of offense for which the defendant was convicted, but the coefficients are not included here because of the large number of dummy variables. Robbery was omitted as the reference category and the following variables were included as dummies in the models: murder, rape, assault, other violent crime, burglary, larceny, motor vehicle theft, forgery, fraud, other property crime, drug sales, other drug crime, weapons offense, driving-related offense, other public order offense, misdemeanor, or unknown crime. The murder coefficient was positive and significant, the rape coefficient was not statistically significant, and all other coefficients were negative and significant ($p < 0.001$).

with the likelihood of incarceration. This effect, which has also been found in other sentencing research (Myers 1987), could be attributable to higher caseload pressures where inequality is high, or to the possibility that elites are apathetic about the punishment of lower classes where inequality is pronounced.

was not statistically significant when percentage of black attorneys was omitted, although the negative effect of Hispanic population size remained consistent. We also found that the intercepts for percent Hispanic attorneys and percent black attorneys were no longer statistically significant when percent Hispanic and percent black in the general population were omitted from the model (again, compare with top portion of Table 2). However, the results reported below with respect to the interaction coefficients were unchanged in the supplementary models.

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The lower portion of Table 2 indicates that several defendant characteristics were also significantly associated with the odds of incarceration, and these were quite consistent with extant work on sentencing. For instance, the likelihood of a jail or prison sentence was higher for men, those with more prior convictions, those found guilty at trial (as opposed to a guilty plea), and defendants found guilty of more serious crimes (see "Note" below Table 2 on the latter). Age exhibited a nonlinear effect in which the odds of incarceration increased until about age 30, at which point the slope reversed direction.[15] Net of these effects, the defendant's race was also significantly associated with incarceration. The odds of incarceration increased by 29 percent ($e^{.253}$) for black defendants and 44 percent ($e^{.368}$) for Hispanic defendants, relative to white defendants. However, racial differences in incarceration were not uniform across counties. According to the cross-level interactions, black-white and Hispanic-white differences in the likelihood of incarceration were smaller where crime rates were higher, perhaps indicating that race matters less where case volume is high. More pertinent to the present research, the higher likelihood of incarceration for blacks was driven downward as the percentage of black lawyers in the county increased ($b = -0.027$). Unlike with blacks, however, the association between Hispanic ethnicity and an incarceration sentence was unaffected by the percentage of Hispanic lawyers in the county.[16]

The above findings for black-white disparities in sentencing as conditioned by the percentage of black attorneys in the county are graphically depicted in Figure 1. The figure shows the predicted probability of receiving an incarceration sentence for blacks and whites when the percentage of black attorneys was at 1, 8, and 15 percent (all other predictors held at their mean values). Two points are particularly noteworthy from this figure. First, the overall odds of incarceration decreased by a nontrivial margin for both races as the percentage of black attorneys increased. Second, and of particular interest here, the racial differences in the probability of incarceration attenuated as the percentage of black attorneys in the county increased. The difference in expected probabilities was 0.07 (0.83–0.76) when the percent black attorneys was 1 percent. This difference was reduced to 0.04 when the percent black lawyers was

[15] The apex of the curvilinear association was calculated using the following formula: $apex = -b/2b^2$. The apex of the curve is thus 30.8 years (− 0.037/[2*–0.0006]).

[16] A reviewer suggested that we test the cross-level interactions without including the other level 2 covariates in that part of the model. Taking this approach arguably showed greater continuity between the HLM and tobit models. This approach yielded consistent results with respect to the direction, magnitude, and statistical significance of the cross-level interaction coefficient (percent black attorneys * defendant's race).

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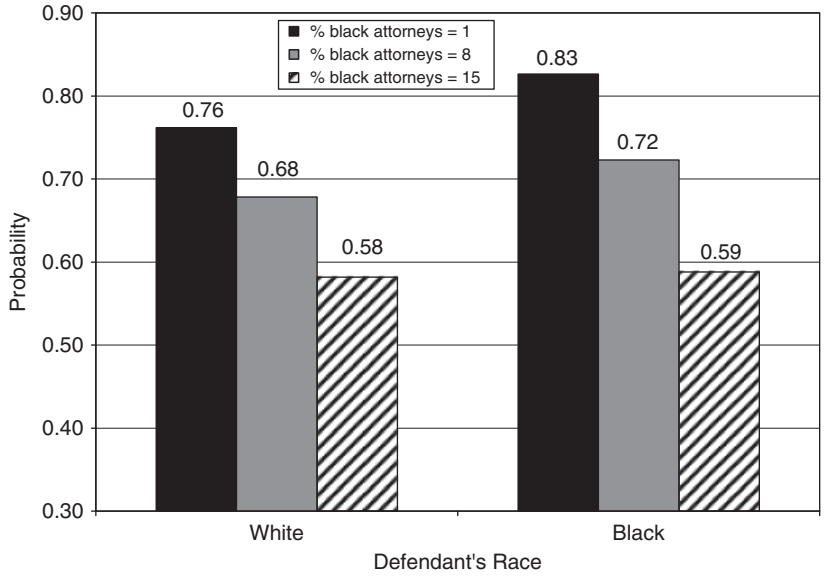

Figure 1. Predicted Probabilities of Incarceration by Defendant's Race and Percentage Black Attorneys.

Note: The graph was generated using HLM 6.06. To generate predicted probabilities, we first re-estimated the model from Table 2 *without* centering the variables so that values for percent black attorneys were more interpretable (coefficient sizes in this model were consistent).

at 8 percent, and to 0.01 when the black attorneys indicator reached 15 percent.

Sentence Length

We next examine whether race of the defendant and the racial composition of attorneys is consequential for sentence length (Table 3). Here we employed a random effects tobit estimator to account for the left censoring of cases resulting in a sentence other than incarceration. The main effects model without interaction terms (model 1) showed considerable continuity with the HLM findings for the "in-out" decision reported above. As expected, males, those with more prior convictions, and those found guilty at trial received longer sentences, net of the crime severity indicators (the latter are not shown in the table). Age again had a nonlinear effect that was quite consistent with the age coefficients reported in Table 2. In addition, sentences were on average longer in counties with larger black and Hispanic populations but shorter in counties with proportionately more black and Hispanic lawyers. With respect to defendant's race, black and Hispanic defendants on average received slightly longer sentences compared to whites. Overall,

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Table 3. Random Effects Tobit Models for Sentence Length ($N = 50{,}243$)

	(1)	(2)	(3)	(4)	(5)
Defendant and case characteristics					
Male	0.513***	0.514***	0.513***	0.513***	0.512***
	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
Prior convictions	0.166***	0.166***	0.166***	0.166***	0.167***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Age	0.036***	0.036***	0.036***	0.036***	0.036***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Age squared	−0.001***	−0.001***	−0.001***	−0.001***	−0.001***
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Black	0.211***	0.256***	0.302***	0.308***	0.256***
	(0.019)	(0.034)	(0.031)	(0.033)	(0.027)
Hispanic	0.220***	0.177***	0.294***	0.200***	0.310***
	(0.028)	(0.042)	(0.074)	(0.044)	(0.050)
Other race	−0.002	0.111	−0.074	0.104	−0.192
	(0.059)	(0.088)	(0.117)	(0.095)	(0.128)
Trial	0.746***	0.749***	0.748***	0.749***	0.747***
	(0.037)	(0.037)	(0.037)	(0.037)	(0.037)
Aggregate-level variables					
% black	0.034***	0.035***	0.030***	0.031***	0.030***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
% Hispanic	0.050***	0.047***	0.048***	0.046***	0.048***
	(0.004)	(0.005)	(0.005)	(0.006)	(0.006)
% voting Republican	0.002	0.002	0.001	0.002	0.002
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Unemployment rate	−0.013	−0.024	−0.016	−0.025	−0.010
	(0.019)	(0.020)	(0.019)	(0.019)	(0.019)
Crime rate	−0.0001**	−0.0001***	−0.0001***	−0.00005**	−0.00004*
	(0.00002)	(0.00002)	(0.00002)	(0.00002)	(0.00001)
Gini coefficient	−10.843***	−10.292***	−9.949***	−10.024***	−10.530***
	(1.532)	(1.607)	(1.615)	(1.641)	(1.600)
South	0.071	0.058	0.109	0.099	0.097
	(0.071)	(0.092)	(0.083)	(0.080)	(0.080)
% black lawyers	−0.045**	−0.043*	−0.038*	−0.028	−0.036*
	(0.017)	(0.017)	(0.017)	(0.019)	(0.016)
% Hispanic lawyers	−0.095***	−0.090***	−0.089***	−0.087***	−0.087***
	(0.010)	(0.012)	(0.011)	(0.012)	(0.011)

(*continued*)

Table 3. (Continued)

	(1)	(2)	(3)	(4)	(5)
Interactions					
Black * % black		−0.002			
		(0.002)			
Hispanic * % black		0.005			
		(0.003)			
Other race * % black		−0.014			
		(0.008)			
Black * % Hispanic			−0.005***		
			(0.001)		
Hispanic * % Hispanic			−0.003		
			(0.002)		
Other race * % Hispanic			0.003		
			(0.005)		
Black * % black lawyers				−0.020***	
				(0.006)	
Hispanic * % black lawyers				0.003	
				(0.008)	
Other race * % black lawyers				−0.034	
				(0.024)	
Black * % Hispanic lawyers					−0.010*
					(0.004)
Hispanic * % Hispanic lawyers					−0.015*
					(0.007)
Other race * % Hispanic Lawyers					0.043
					(0.025)
Constant	5.950***	5.825***	5.678***	5.658***	5.708***
	(0.698)	(0.730)	(0.729)	(0.750)	(0.721)

Standard errors in parentheses.

*$p<0.05$, **$p<0.01$, ***$p<0.001$.

Note: The models also control for the type of offense for which the defendant was convicted, but the coefficients are not included here because of the large number of dummy variables. Robbery was omitted as the reference category and the following variables were included as dummies in the models: murder, rape, assault, other violent crime, burglary, larceny, motor vehicle theft, forgery, fraud, other property crime, drug sales, other drug crime, weapons offense, driving-related offense, other public order offense, misdemeanor, or unknown crime. The murder coefficient was positive and significant, the rape coefficient was not statistically significant, and all other coefficients were negative and significant ($p<0.001$).

these coefficients closely aligned with prior research on sentencing and also our findings from Table 2.

Model 2 in Table 3 shows the interaction coefficients for race and percent black in the county, and model 3 is a comparable model testing for an interaction between race and Hispanic population size. The interaction coefficients in model 2 were not statistically significant, indicating that black defendants are not sentenced longer in counties with larger black populations. Model 3 also shows that the interaction between Hispanic defendants and percent Hispanic in the county was not significant, although it appeared that the coefficient for black defendants was driven downward in counties with larger Hispanic populations ($b = -0.005$).

In models 4 and 5 we again saw evidence of a significant interaction effect between defendant's race and the proportion of minority attorneys in the local legal profession. Black defendants received longer sentences on average compared to whites, but this effect was driven downward as the proportion of blacks in the local legal profession increased. These estimates suggest that the slope for *black defendant* was 0.288 when the percentage of black lawyers was about 1 percent, or roughly one standard deviation below the mean ($0.308 - 1* -0.02 = 0.288$). The slope coefficient was more than halved when the percent black in the local legal profession reached 10 percent (roughly one standard deviation above the mean; $0.308 - 10* -0.02 = 0.108$; see model 4). The magnitude of the interaction coefficient was comparable, albeit slightly weaker, for the case of Hispanic defendants and the percentage of Hispanic attorneys in the legal profession (see model 5). Moreover, model 5 indicated that the percentage of Hispanics in the legal profession had a similar effect for black defendants.[17]

We briefly take stock of the above findings before proceeding to a final set of models. First, and consistent with prior research, a number of case and defendant characteristics were associated with sentencing outcomes. Prior record and offense severity were sizeable and robust correlates of the "in-out" decision and sentence length and, net of these effects, sentences were also more punitive for males, those convicted at trials, middle-aged defendants, and blacks and Hispanics relative to whites. Second, and with only one exception (black defendant * percent Hispanic for sentence length), the race coefficients did not significantly differ based on the racial composition of the county. Third, and in line with our

[17] One of our focal predictor variables, the respective percentages of blacks and Hispanics in the legal profession, entailed a fair amount of interpolation in the intercensus years. This was a reasonable practice so long as the change over time followed a fairly linear pattern. We note that an additional set of HLM and tobit models that only used data from 1990 and 2000—years for which we had data on this variable—yielded the same substantive results. Results of these models are available upon request.

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expectations, the racial composition of the local legal profession was meaningful for understanding variation in racial disparities in sentencing. The "sentencing tax" paid by black and Hispanic defendants attenuated in counties with proportionately more black or Hispanic lawyers, respectively.

Endogeneity

As discussed above, it is plausible that an underlying and unmeasured characteristic of counties, perhaps an acute awareness of racial disparities in the administration of justice by local politicians, could drive the hiring of more nonwhite attorneys and minimize racial disparities in sentencing. To the extent that this occurs, our key findings with respect to race and racial demographics of the local legal profession could be spurious, as both are attributable to an unmeasured propensity. We tried to minimize this possibility by controlling for several factors that are reasonable proxies for such an underlying propensity, such as the political preference of the general population and county racial demographics. Still, an alternative means of accounting for unobservables is to fix the county effect, assuming that any underlying propensity determining both sentencing practices and demographics of attorneys does not change appreciably over time. We see this as a tenable assumption given the short time period in which our data were collected (1990–2002).

The SCPS data permit such an analysis because each county was sampled two or more times between 1990 and 2002, and with the exception of the region variable (which was omitted) the county-level covariates change from year to year. We thus employed a conditional logistic regression model, also known as a fixed effects logit model, to test the robustness of our findings for the decision to incarcerate. In addition, we utilized an unconditional fixed effects tobit model for sentence length.[18] To limit the amount of clutter we only show the coefficients for the interaction terms and their component variables in Table 4. For both dependent variables—the decision to incarcerate and sentence length—the interaction between race of the defendant and racial demographics of the local legal profession were significant and negative, and the magnitude of the coefficients was comparable to those reported for the HLM and random effects

[18] Allison (2006) provides an accessible discussion on the advantages of using the conditional logistic regression model when estimating fixed effects for binary outcome variables. This model was estimated using the PROC LOGISTIC command in SAS. A conditional tobit model could not be estimated, although the unconditional model (adding dummy variables for all but one county) could be estimated. The advantage of this model is that it better accounted for time-stable unobservables, although at the expense of introducing some bias in the coefficient estimates.

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Table 4. Fixed Effects Models for Sentence Length and Decision to Incarcerate

	Model 1 Sentence length (tobit)	Model 2 Sentence length (tobit)	Model 3 In/out (logistic)	Model 4 In/out (logistic)
Black	0.312***	0.260***	0.358***	0.322***
	(0.031)	(0.027)	(0.043)	(0.035)
Hispanic	0.196***	0.372***	0.330***	0.519***
	(0.043)	(0.045)	(0.061)	(0.061)
Other race	0.101	−0.256	0.081	−0.376*
	(0.097)	(0.132)	(0.128)	(0.174)
%black lawyers	−0.072***	−0.086***	−0.056*	−0.071**
	(0.016)	(0.016)	(0.023)	(0.023)
%Hispanic lawyers	0.011	0.020	−0.049**	−0.044**
	(0.013)	(0.013)	(0.017)	(0.017)
Black * % black lawyers	−0.021***		−0.015*	
	(0.006)		(0.007)	
Hispanic * %black lawyers	−0.005		−0.015	
	(0.008)		(0.010)	
Other race * %black lawyers	−0.037		−0.052	
	(0.025)		(0.032)	
Black * %Hispanic lawyers		−0.010**		−0.007
		(0.004)		(0.005)
Hispanic * %Hispanic lawyers		−0.030***		−0.037***
		(0.006)		(0.007)
Other race * %Hispanic lawyers		0.053*		0.072*
		(0.026)		(0.037)
N	50,243	50,243	51,014	51,014

*$p <= 0.05$, **$p < 0.01$, ***$p < 0.001$.

Note: Models control for all variables included in Tables 2 and 3 above (with the exception of "south"), in addition to county dummy variables. Models 3 and 4 are based on a conditional logit model estimated in SAS (see Allison 2006).

models.[19] Given this degree of consistency across model specifications, we conclude with a fair degree of confidence that racial and ethnic diversity in the legal profession significantly attenuates racial disparities in sentencing.

Discussion

In their review of research on law and inequality Seron and Munger (1996:202) state that "the relationship between lawyers and the evolution of major institutions of the society . . . should be a prime area for continuing development of theory and research." In the present work we heeded this advice and asked how the

[19] There was one notable exception. In model 4 of Table 4, the interaction coefficient for Hispanic defendant * percent Hispanic attorneys was statistically significant and negative for the analysis of incarceration, whereas the cross-level interaction in the HLM model (Table 2) was not statistically significant. One plausible reason for this difference is that we allowed the Hispanic defendant intercept to vary for multiple level 2 covariates in the HLM model, while we only allowed for an interaction between Hispanic defendant and percentage of Hispanic attorneys in model 4 of Table 4. When we estimated an HLM model that only allowed the Hispanic defendant intercept to vary by percent Hispanic attorneys, the difference in coefficients between Table 2 and Table 4 was considerably smaller.

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demography of the legal profession influences an important practice within a powerful legal institution: sentencing in the American criminal courts. Our results provided little support for the notion that nonwhite defendants are punished more harshly than whites in counties with larger nonwhite populations, as some prior research has suggested. Rather, it was the demographics of the local legal profession that partly explained county-level variation in racial sentencing disparities. To summarize our results concisely, we conclude that more racial diversity in the bar results in less racial disparity in criminal sentencing.

Our key findings lend additional support to the notion that disparities in the administration of justice are likely to attenuate as minorities are increasingly represented in the profession (A. Johnson 1997). To the extent that the representation of nonwhites in the legal profession continues to increase, our results bode well for those concerned with uneven outcomes in the criminal justice system. This is not to say that the problem is easily eradicated or that assembling a racially diverse pool of lawyers is an easy or taken for granted task (see Sander 2004). Still, an implication of our research is that demographic change in the profession is likely to influence more than promotions and wages; it may mitigate disparities in justice outcomes as well. In this sense our results lend credibility to claims that substantive representation—having more persons of color making decisions in the justice system—can minimize racial disparities in criminal courts (compare S. Johnson 1985).

At a more abstract level, our work demonstrates how ideas salient in the study of occupations and mobility inform research on the legal profession and case dispositions. This line of research motivated us to look beyond the demographics of counties or states, which existing research has often considered in the study of race and sentencing. We suggested two avenues through which the racial composition of the legal profession might influence justice outcomes. One mechanism was rather rudimentary in nature and simply built on the idea of in-group favorability. From this perspective, the probability of nonwhite defendants encountering nonwhite attorneys increased with the proportion of nonwhite lawyers in the county. A second mechanism involved the role of culture and suggested that consciousness and awareness of racial discrimination were elevated where more decision makers were members of underrepresented groups. On this note, one limitation of our study was that we could not definitively determine to what extent these two mechanisms played a causal role. In other words, we theorized the precise mechanisms that served as the conduit linking the demography of the legal profession and sentencing outcomes, but we could not measure these directly. This limitation was not unique to our analysis, as most macro-level studies that

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focus on county or state demographics must make similar assumptions about the specific causal mechanisms at play. Related work on wages and the demography of industrial sectors rests on comparable assumptions as well (e.g., Cohen & Huffman 2007). We suggest that future research would be well served by giving attention to these mechanisms. For instance, survey research could gauge lawyers' sentiments about the degree of discrimination that they perceive in the justice system, and whether such attitudes among white attorneys change as diversity in the profession increases. Likewise, surveys of defendants about their perceptions of fair treatment might consider the race of their attorneys as a variable of theoretical interest. Research of this nature would provide a more complete portrait of how and why diversity in the local legal profession impacts sentencing or, presumably, other facets of dispute resolution.

We also acknowledge some other limitations in our research. For instance, recent work on sentencing indicates that court characteristics such as caseload pressures, size of the court, and trial rates are salient determinants of sentencing (B. Johnson 2006), yet these variables were unavailable in the SCPS data. To the extent that these variables do not change appreciably over time, our results from Table 4, which included county dummy variables to control for time-constant unobservables, may mitigate potential bias from these omitted variables. Still, future research might test the robustness of our findings if data become available that include information on the local legal profession and indicators of court context. In addition, we utilized data on the local legal profession partly as a proxy for the demographics of lawyers working in the realm of criminal law. For reasons articulated above, we saw this as a reasonable proxy, and to our knowledge these are the best available data on the racial composition of the legal profession. Still, should information on attorneys working in the criminal courts become available we would hope that future research would test the robustness of the findings with more fine-grained measures.

Mindful of these limitations, the key findings from this research are relevant to the role of affirmative action in the field of law. Much research in this vein has focused on law school admissions, attrition, and the hiring and wages of minority attorneys. An additional and important question relevant to affirmative action is how leveling the playing field affects those who are subject to the coercive power of the state. Our results suggest that efforts to diversify the legal profession may have the ancillary benefit of minimizing unequal treatment across racial lines.

Finally, we believe the findings from this research inform the larger literature on race and punishment. For instance, future work might look at other stages of criminal processing to determine

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whether the demographics of the local legal profession have explanatory power. We would expect comparable effects for the decision to charge, plea negotiations, pretrial detention, and the use of peremptory challenges to exclude black jurors. Future work might also investigate whether the demographics of the legal profession affect perceptions of fairness, which has been suggested in prior work (Reynoso 2005). This is an important question given the purported association between perceptions of fairness and compliance with law (Tyler 1990). In addition, a long line of empirical work has investigated temporal and spatial variation in rates of criminal punishment, use of the death penalty, racial disparities in incarceration rates, and related topics (e.g., Greenberg & West 2001; Jacobs & Carmichael 2002; Keen & Jacobs 2009). Among the rather stable correlates of punishment has been the racial composition of the geographic area, namely the state. To our knowledge this line of work has not systematically incorporated measures associated with the legal profession, such as the proportion of black attorneys. One hypothesis stemming from our argument is that states with more blacks per capita in the legal profession would have smaller racial disparities in state prisons and lower racial disparities in the use of capital punishment. A related argument might be advanced for other types of social control as well. For instance, the demography of the psychiatric profession may have consequences for racial disparities in mental health facility commitments. These represent but a sampling of questions and issues that logically extend from our argument. We see this as a fruitful line of scholarship, and one that informs a larger and consequential set of questions about the implications of a demographically changing legal profession for the administration of justice.

References

Abel, Richard (1989) *American Lawyers*. New York: Oxford Univ. Press.

Albonetti, Celesta (1997) "Sentencing under the Federal Sentencing Guidelines: Effects of Defendant Characteristics, Guilty Pleas, and Departures on Sentence Outcomes for Drug Offenses, 1991–1992," 31 *Law & Society Rev.* 789–822.

Allison, Paul D. (2006) "Fixed Effects Regression Methods in SAS," http://www2.sas.com/proceedings/sugi31/184-31.pdf (accessed 3 Oct. 2009).

Barlow, David, & Melissa Hickman Barlow (2002) "Racial Profiling: A Survey of African American Police Officers," 5 *Police Q.* 334–58.

Beckman, Christine M., & Damon J. Phillips (2005) "Interorganizational Determinants of Promotion: Client Leadership and Promotion of Women Attorneys," 70 *American Sociological Rev.* 678–701.

Bell, Derrick A. (1973) "Racism in American Courts: Cause for Black Disruption or Despair?," 61 *California Law Rev.* 165–203.

Black, Donald (1976) *The Behavior of Law*. New York: Academic Press.

Bontrager, Stephanie, et al. (2005) "Race, Ethnicity, Threat and the Labeling of Convicted Felons," 43 *Criminology* 589–622.

Bridges, George S., et al. (1987) "Crime, Social Structure and Criminal Punishment: White and Non-White Rates of Imprisonment," 34 *Social Problems* 345–61.
Britt, Chester L. (2000) "Social Context and Racial Disparities in Punishment Decisions," 17 *Justice Q.* 707–32.
Bryk, Anthony S., & Stephen W. Raudenbush (1992) *Hierarchical Linear Models*. Newbury Park, CA: Sage Publications.
Cappell, Charles L. (1990) "The Status of Black Lawyers," 17 *Work and Occupations* 100–21.
Chambliss, Elizabeth (2004) *Miles to Go: Progress of Minorities in the Legal Profession*. Report prepared by the American Bar Association Commission on Racial and Ethnic Diversity in the Legal Profession. Chicago: American Bar Association.
Chambliss, Elizabeth, & Christopher Uggen (2000) "Men and Women of Elite Law Firms: Reevaluating Kanter's Legacy," 25 *Law & Social Inquiry* 41–68.
Cohen, David L., & John L. Peterson (1981) "Bias in the Courtroom: Race and Sex Effects of Attorneys on Juror Verdicts," 9 *Social Behavior and Personality* 81–7.
Cohen, Philip N., & Matt L. Huffman (2007) "Working for the Woman? Female Managers and the Gender Wage Gap," 72 *American Sociological Rev.* 681–704.
Crawford, Charles (2000) "Gender, Race and Habitual Sentencing in Florida," 38 *Criminology* 263–80.
Crawford, Charles, et al. (1998) "Race, Racial Threat, and Sentencing of Habitual Offenders," 36 *Criminology* 481–512.
D'Alessio, Stewart J., & Lisa Stolzenberg (2009) "Racial Animosity and Interracial Crime," 47 *Criminology* 269–96.
DeMuth, Stephen, & Darrell Steffensmeier (2004) "Ethnicity Effects on Sentence Outcomes in Felony Cases: Comparisons Among White, Black, and Hispanic Defendants," 85 *Social Science Q.* 994–1011.
Donohue, John J. III, & Steven D. Levitt (2001) "The Impact of Race on Policing and Arrests," 44 *The J. of Law and Economics* 367–94.
Ely, Robin J., & David A. Thomas (2001) "Cultural Diversity at Work: The Effects of Diversity Perspectives on Work Group Processes and Outcomes," 46 *Administrative Science Q.* 229–73.
Engel, David M. (1984) "The Oven Bird's Song: Insiders, Outsiders, and Personal Injuries in an American Community," 18 *Law & Society Rev.* 551–82.
Equal Employment Opportunity Commission (2003) "Diversity in Law Firms," http://www.eeoc.gov/stats/reports/diversitylaw/index.html (accessed 19 Oct. 2009).
Farrell, Amy, et al. (2009) "Race Effects of Representation among Federal Court Workers: Does Black Workforce Representation Reduce Sentencing Disparities?," 623 *The Annals of the American Academy of Political and Social Science* 121–33.
Fearn, Noelle (2005) "A Multilevel Analysis of Community Effects on Criminal Sentencing," 22 *Justice Q.* 452–87.
Gorman, Elizabeth (2005) "Gender Stereotypes, Same-Gender Preferences, and Organizational Variation in the Hiring of Women: Evidence from Law Firms," 70 *American Sociological Rev.* 702–28.
Greenberg, David, & Valerie West (2001) "State Prison Populations and their Growth, 1971–1991," 39 *Criminology* 615–53.
Hagan, John, et al. (1988) "Class Structure and Legal Practice: Inequality and Mobility among Toronto Lawyers," 22 *Law & Society Rev.* 9–55.
Harrington, Michael P. (2008) "Revisiting the Total Incarceration Variable: Should Researchers Separate Jail from Prison Sentences in Sentencing Research?," 24 *J. of Contemporary Criminal Justice* 462–78.
Heinz, John, et al. (2001) "The Scale of Justice: Observations on the Transformation of Urban Law Practice," 27 *Annual Rev. of Sociology* 337–62.
Holleran, David, & Cassia Spohn (2004) "On the Use of the Total Incarceration Variable in Sentencing Research," 42 *Criminology* 211–40.

Hull, Kathleen E., & Robert L. Nelson (2000) "Assimilation, Choice or Constraint? Testing Theories of Gender Differences in the Careers of Lawyers," 79 *Social Forces* 229–64.

Jacobs, David, & Jason T. Carmichael (2002) "The Political Sociology of the Death Penalty: A Pooled Time-Series Analysis," 67 *American Sociological Rev.* 109–31.

Johnson, Alex (1997) "Symposium: Representing Race: The Underrepresentation of Minorities in the Legal Profession: A Critical Race Theorist's Perspective," 95 *Michigan Law Rev.* 1005–62.

Johnson, Brian D. (2003) "Racial and Ethnic Disparities in Sentencing Departures across Modes of Conviction," 41 *Criminology* 501–42.

——— (2006) "The Multilevel Context of Criminal Sentencing: Integrating Judge- and County-Level Influences," 44 *Criminology* 259–98.

Johnson, Sheri (1985) "Black Innocence and the White Jury," 83 *Michigan Law Rev.* 1611–1708.

Kanter, Rosabeth Moss (1977) *Men and Women of the Corporation*. New York: Basic Books.

Keen, Bradley, & David Jacobs (2009) "Racial Threat, Partisan Politics, and Racial Disparities in Prison Admissions: A Panel Analysis," 47 *Criminology* 209–38.

Kennedy, Peter (1998) *A Guide to Econometrics*, 4th ed. Cambridge, MA: MIT Press.

Kleck, Gary (1981) "Racial Discrimination in Criminal Sentencing: A Critical Evaluation of the Evidence with Additional Evidence on the Death Penalty," 46 *American Sociological Rev.* 783–805.

Kulis, Stephen (1997) "Gender Segregation among College and University Employees," 70 *Sociology of Education* 151–73.

Lempert, Richard, et al. (2000) "From the Trenches and Towers: Law School Affirmative Action: An Empirical Study of Michigan's Graduates in Practice: The River Runs Through Law School," 25 *Law & Social Inquiry* 395–505.

Mann, Coramae Richey (1988) *Unequal Justice: A Question of Color*. Bloomington, IN: Indiana Univ. Press.

Myers, Martha A. (1987) "Economic Inequality and Discrimination in Sentencing," 65 *Social Forces* 746–66.

Myers, Martha A., & Susette M. Talarico (1986) "The Social Contexts of Racial Discrimination in Sentencing," 33 *Social Problems* 236–51.

National Association of Law Professionals (2006) "Employment Patterns 1982–2004," *National Association for Law Placement Bulletin*, http://www.nalp.org/2006junemploymentpatterns (accessed 16 Oct. 2009).

Nelson, Robert (1988) *Partners with Power: The Social Transformation of the Large Law Firm*. Berkeley, CA: Univ. of California Press.

——— (1994) "The Future of American Lawyers: A Demographic Profile of a Changing Profession in a Changing Society," 44 *Case Western Reserve Law Rev.* 345–406.

Olsson, Nils Greger, & Dustin Kim (2006) *Annual Report on the Status of Women and Racial/Ethnic Minorities in the State Bar of Texas (2005–2006)*, State Bar of Texas Department of Research and Analysis, http://www.texasbar.com/template.cfm?section=research_and_analysis (accessed 16 Oct. 2009).

Orfield, Gary, & Dean Whitla (1999) *Diversity and Legal Education: Student Experiences in Leading Law Schools*. Cambridge, MA: The Civil Rights Project, Harvard University.

Raudenbush, Stephen, et al. (2004) *HLM 6: Hierarchical Linear and Nonlinear Modeling*. Lincolnwood, IL: Scientific Software International.

Reynoso, Cruz (2005) "A Survey of Latino Lawyers in Los Angeles County—Their Professional Lives and Opinions," 38 *University of California-Davis Law Rev.* 1563–642.

Russell, Margaret (1997) "Symposium: Representing Race: Beyond "Sellouts" and "Race Cards": Black Attorneys and the Straitjacket of Legal Practice," 95 *Michigan Law Rev.* 766–94.

Sander, Richard H. (2004) "A Systemic Analysis of Affirmative Action in American Law Schools," 57 *Stanford Law Rev.* 367–483.

Segal, Geraldine (1983) *Blacks in the Law: Philadelphia and the Nation*. Philadelphia: Univ. of Pennsylvania Press.
Seron, Carroll, & Frank Munger (1996) "Law and Inequality: Race, Gender . . . and, of Course, Class," 22 *Annual Rev. of Sociology* 187–212.
Snijders, Tom, & Roel Bosker (1999) *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. London: Sage.
Spohn, Cassia (1990) "The Sentencing Decisions of Black and White Judges: Expected and Unexpected Similarities," 24 *Law & Society Rev.* 1197–216.
Steffensmeier, Darrell, & Stephen DeMuth (2000) "Ethnicity and Sentencing Outcomes in U.S. Federal Courts: Who Is Punished More Harshly?," 65 *American Sociological Rev.* 705–29.
Tyler, Tom (1990) *Why People Obey the Law*. New Haven, CT: Yale Univ. Press.
Uhlman, Thomas M. (1978) "Black Elite Decision Making: The Case of Trial Judges," 22 *American J. of Political Science* 884–95.
Ulmer, Jeffery T., & Brian D. Johnson (2004) "Sentencing in Context: A Multilevel Analysis," 42 *Criminology* 137–77.
Ulmer, Jeffery T., & John Kramer (1996) "Court Communities under Sentencing Guidelines: Dilemmas of Formal Rationality and Sentencing Disparity," 34 *Criminology* 383–408.
Walker, Thomas G., & Deborah J. Barrow (1985) "The Diversification of the Federal Bench: Policy and Process Ramifications," 47 *The J. of Politics* 596–617.
Weidner, Robert R., et al. (2005) "The Impact of Contextual Factors on the Decision to Imprison in Large Urban Jurisdictions: A Multilevel Analysis," 51 *Crime and Delinquency* 400–24.
Wheeler, Stanton, et al. (1982) "Sentencing the White-Collar Offender: Rhetoric and Reality," 47 *American Sociological Rev.* 641–59.
Wilbanks, William (1987) *The Myth of a Racist Criminal Justice System*. Monterey, CA: Brooks/Cole Publishing.

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