

# Race and Cumulative Discrimination in the Prosecution of Criminal Defendants

Race and Justice

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## Abstract

Most research investigates the effect of a defendant's race on severity of imposed legal sanction at only one of several decision points that comprise the criminal justice system. This myopic focus on what can be termed episodic discrimination is problematic because racial discrimination evinced at one decision point may be amplified, negated, or even reversed at other decision points. Here we synthesize estimates of a defendant's race on the severity of imposed legal sanction at each of the decision points encountered by a defendant as he or she progresses through the criminal justice system. Although initial results show that the effect of race on severity of outcome depends on the specific decision point analyzed, a synthesis of these race estimates in a meta-analysis reveals that the odds of receiving a severe sanction is approximately 42% higher for a Black defendant even after controlling for prior record and other legal and extralegal variables. Thus, although the influence of a defendant's race on the severity of sanction is statistically discernible at just two of the eight criminal justice decision points, a substantive cumulative racial discriminatory effect is evident when all the individual decision points are considered in their totality.

## Keywords

race, cumulative racial discrimination, criminal justice system

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## Background

The relationship between a criminal defendant's race and the severity of imposed legal sanction remains a topic of much interest and controversy. The disparity between Black and White citizens in regard to arrest rates, probation rates, and conviction rates is striking (Gabbidon & Greene, 2008). Blacks also comprise a disproportionate share of the U.S. prison population. Although only comprising about 12% of the U.S. population, approximately 40% of over 1.5 million individuals incarcerated in state and federal prisons are Black (Harrison & Beck, 2006). Indeed, nearly 5% of Black men are under the control of the criminal justice system in America (Bureau of Justice Statistics, 2007a). The consequences of serving time in prison are clearly deleterious. Individuals released from prison have difficulty in securing employment, earn lower wages, are less apt to marry, and have a greater proclivity to recidivate (Mauer & Chesney-Lind, 2002).

There is little debate that Blacks are overrepresented in criminal justice system relative to their numbers in the general population, but disagreement persists as to the causal mechanisms explaining this disparity. A number of studies suggest that the strongest predictor of a criminal defendant's criminal justice outcome is not the defendant's race but rather legal factors such as severity of the criminal offense and prior criminal record (Spohn, 2000). Blacks are thus overrepresented in the criminal justice system as compared to Whites because they violate the law more frequently and commit serious crimes (Sorensen, Hope, & Stemen, 2003). Proponents of this perspective typically focus their attention on the effect of social and or structural factors on criminal offending to help explicate race differences in criminal justice contact. Poverty, economic inequality/deprivation, social disorganization, segregation, and family structure are just a few of the causal factors highlighted in the extant literature (Unnever & Gabbidon, 2011). Within this framework, the legal system is rooted in the logic that criminal laws shape society and regulate human conduct (Pound, 1996).

An alternative position suggests that the overrepresentation of Black citizens in the criminal justice system is the result of racial discrimination (Tonry, 2011). Conflict theory views society as consisting of various groups with differing and competing values, with the state organized to represent the interests of the wealthy and powerful. Within this perspective, the criminal law is a weapon wielded to protect the interests of the elite in society. Because the severity of criminal sanction is dependent on an individual's social class or race, the poor and subordinate racial groups who challenge the status quo are the subjects of increased criminalization, arrest, and incarceration to help ensure that the state can effectively control them (Sampson & Laub, 1993). As Hawkins (1987, p. 724) alludes to in reference to race, "... blacks or other non-whites will receive more severe punishment than whites for all crimes, under all conditions, and at similar levels of disproportion over time."

However, Although conflict theory tends to conceive of racial discrimination as being direct and overt, recent theoretical approaches drawing from conflict theory such as the focal concerns perspective argue that the racial discrimination experienced

by a criminal defendant tends to be subtle and indirect. The focal concerns perspective posits that prosecutorial and judicial decisions depend on three primary criteria: the defendant's blameworthiness, the defendant's perceived dangerousness, and the practical considerations and constraints of criminal justice decision makers (Kramer & Ulmer, 2009). Blameworthiness is essentially an assessment of the criminal defendant's culpability in the alleged crime coupled with the degree of harm that he or she inflicted. Given this culpability and harm, there then is a determination made in regard to a proportional level of punishment. The blameworthiness of the defendant is assessed by legal factors such as offense type and severity of the harm inflicted. The criterion of dangerousness, which centers on the utilitarian goals of deterrence and incapacitation, entails an assessment of the future risk that the defendant poses to the community. When addressing the protection of the community concern, criminal justice decision makers often rely on both legal and extralegal factors such as marital status, employment status, and the defendant's prior criminal record. Practical constraints and consequences for the organization such as the overcrowding of prisons, the family responsibilities of the defendant, and community/political pressures on the court play a salient role in predicting a defendant's ultimate outcome (Johnson, Ulmer, & Kramer, 2008).

There is considerable speculation that both prosecutors and judges rely on perceptual shorthands that allow them to reach quick decisions when confronted with insufficient or contradictory case information (Albonetti, 1991, 1997; Johnson et al., 2008). These perceptual shorthands often hinge on racialized attributions regarding the causes of criminal behavior, a defendant's fitness for rehabilitation, and other social factors. For example, criminal justice decision makers often adopt a stereotypical view of Black defendants, especially young Black male defendants, as being aggressive, disrespectful, and likely to adhere to a criminal lifestyle (Bridges & Steen, 1998; Tittle & Curran, 1988). There is considerable evidence that Hispanic defendants experience the same perception (Everett & Wojtkiewicz, 2002; Schlesinger, 2005; Spohn & Holleran, 2000). This reliance on stereotypical perceptual cues to quickly manage criminal cases inevitably results in criminal justice decision makers developing the view that Black defendants are not only dangerous to the community but also poor candidates for rehabilitation. Thus, because of the racialized perceptual shorthands used by criminal justice decision makers, Black defendants have a greater proclivity of receiving harsh treatment at the different stages of the criminal justice system.<sup>1</sup>

The belief that the criminal justice system may be racially biased has generated a voluminous amount of research over the years, but an unequivocal conclusion is difficult to draw from these empirical inquiries.<sup>2</sup> As Spohn (2000, p. 430) notes, "definitive answers to questions concerning differential sentencing of racial minorities and whites remain elusive." Although many studies report that Black defendants are punished more harshly (Albonetti, 1997; Bales & Piquero, 2012; Holmes et al., 1996; Kramer & Ulmer, 1996; Spohn, Gruhl, & Welch, 1981–1982; Warren, Chiricos, & Bales, 2012; Zatz, 1984), others find little/no difference in the severity of punishment experienced by Black and White criminal defendants (Engen & Gainey,

2000; Klein, Petersilia, & Turner, 1990). Still others report that Whites experience harsher sanctions than do Black defendants (Bernstein, Kelly, & Doyle, 1977; Gibson, 1978; Myers & Talarico, 1987; Wooldredge & Thistlewaite, 2004).

Likewise, studies of presentencing decisions and outcomes—bail decisions, prosecutorial charging decisions, and plea/trial decisions—also display inconsistencies in the role that race may play in such decisions and outcomes, with some studies finding evidence that racial and ethnic minorities are directly disadvantaged at these decision points (e.g., Demuth, 2003; Demuth & Steffensmeier, 2004; Freiburger, Marcum, & Pierce, 2010; Schlesinger, 2005), others finding no evidence of race directly influencing pretrial decisions (Albonetti et al., 1989; Turner, Secret, & Johnson, 2003; Wooldredge, 2012), and others finding evidence that racial and ethnic minorities are advantaged in such decisions and outcomes (Wooldredge & Thistlewaite, 2004).

Summaries of the relevant literature also reach divergent conclusions regarding the amount of racial disparity that permeates the criminal justice system overall. Reviews by Kansal (2005), Mitchell (2005), Spohn (2000), Ulmer (2012), and Zatz (1987, 2000) report evidence of racial discrimination in the criminal justice system, whereas Pratt (1998) does not. Sampson and Lauritsen (1997 p. 362) reach a more equivocal conclusion and claim that, “. . . racial discrimination emerges some of the time at some stages of the system in some locations, but there is little evidence that racial disparities reflect systematic, overt bias on the part of criminal justice decision makers.”

One plausible reason for these incongruous findings is that the occurrence of racial discrimination depends on the type of offense perpetrated by the defendant. Along these lines, Hawkins (1987) argues that Blacks experience enhanced punishment for white-collar rather than for street crimes because of the widespread belief among criminal justice officials that Blacks commit white-collar-type offenses infrequently. After evincing evidence of racial disparity in the prosecution of drug and sexual offenders, Tittle and Curran (1988, p. 52) theorized that these types of offenses “. . . represent overt behavioral manifestations of the very qualities we contend frighten white adults or generate resentment and envy . . .” Likewise, in her summary of the literature on race and the seriousness of punishment, Zatz (2000, p. 507) writes that, “. . . the empirical literature demonstrates clear race effects in lower level felonies—those that are serious but not particularly heinous.”

Another explanation proffered for the inconsistent findings is that race interacts with victim and or defendant demographic characteristics. Studies find that Black-on-White crimes are punished more harshly than Black-on-Black crimes because these types of interracial offenses are perceived to be more threatening to the interests of Whites in the society (LaFree, 1980; Spohn, 2000; Spohn and Spears, 1996; Walsh, 1987), despite evidence that Black-on-White crimes are deemed to be no more serious in regard to victim injury than White-on-Black crimes (D’Alessio & Stolzenberg, 2009). Still, bias against Blacks as defendants may be canceled out due to bias against Black victims (since most crimes are intraracial in nature), a possibility known as compensating bias (Blumstein, 1982). Others suggest that race interacts with the defendant’s employment status in determining severity of sanction (Nobiling, Spohn, & DeLone, 1998). Furthermore, some argue that unemployed young Black males are

“a privileged target group for imprisonment” in the United States and England because “the dangerous classes are defined by a mix of economic and racial, ethnic and national references” (Melossi, 1989, p. 317; Spohn & Holleran, 2000). The interaction between a defendant’s race and other demographic characteristics may activate stereotypes held by criminal justice actors of potentially dangerous offenders through the mechanism of cognitive bias (Spohn, 2000). It is irrelevant whether unconscious processing of information or overt racial prejudice motivates discriminatory behavior because both apply stereotypes that engender discriminatory behavior (Warren, Tomaskovic-Devey, Smith, Zingraff, & Mason, 2006).

Although scholarly discourse on the factors responsible for the disparate findings reported in the literature has undoubtedly advanced our understanding of the complexity inherent in evaluating the relationship between a defendant’s race and severity of criminal sanction, one overlooked explanation for the absence of a consistent race effect relates to the general failure of prior research to model the criminal justice system as a conglomeration of unique and distinct decision points that are interconnected (Crutchfield, Bridges, & Pitchford, 1994; Zatz, 1987). The vast majority of prior empirical studies test for the presence of racial disparity by simply comparing the outcomes of Black and White defendants at a single criminal justice processing decision point (e.g., sentencing, conviction, pretrial outcomes). To illustrate, in his recent summary of the race punishment literature, Mitchell (2005) found that 37% of the 71 studies reviewed only probed the effect of a defendant’s race on the likelihood of imprisonment. Another 16% of the studies investigated just the sentence length decision. Thus, over 50% of the 71 studies reviewed by Mitchell analyzed a single criminal justice decision point. However, it is important to recognize that a research strategy that concentrates on the occurrence of “episodic discrimination” at a particular decision point in the criminal justice system is problematic because the amount of racial discrimination experienced by a criminal defendant likely varies depending on the decision point analyzed. As Crutchfield et al. (1994, p. 169) point out, “. . . racial differences in treatment may be pronounced at one stage (e.g., filing of charges or pretrial diversion) and small at another (e.g., conviction and sentencing).” Thus, although a researcher might argue that a result showing that Black defendants on average receive longer prison sentences than similarly situated White defendants is evidence that the criminal justice system is racially biased, such an assertion may be incorrect in that prison sentence length is only one of the several possible sanctions that could have been legitimately examined. The selection of another decision point for analysis, such as the decision whether or not to grant bail to the defendant, might have resulted in an entirely different conclusion in regard to the presence of racial discrimination in the criminal justice system.

It is also plausible that a small amount of racial discrimination at an early decision point in the criminal justice process may accumulate across each decision point, leading to an (overall) sizable bias. Zatz (1987, p. 76) is cognizant of this possibility when she writes that, “. . . as the person moves through the system, these [instances of bias] add up to substantial, and often statistically significant, disparities in the processing and outcomes for different social groups.”

One way that the cumulative influence of racial discrimination may transpire is that prosecutors and judges may identify defendants receiving adverse outcomes early in the process as more deserving of state punishment. To illustrate, in addition to exercising "... a tremendous amount of discretion in charging and plea bargaining processes with no external oversight and very little accountability to the constituents they serve" (Davis, 2007–2008, p. 205), a prosecutor does not usually spend an inordinate amount of time gathering the information necessary to make an informed decision regarding how to handle a particular criminal case. Time constraints, engendered by pressure to clear cases as quickly as possible to prevent a backlog, often motivate prosecutors to make relatively hurried decisions to expedite the prosecution of criminal cases. The enormous amount of discretion afforded to prosecutors, coupled with the necessity of relatively quick decisions without full case information, creates a situation whereby the prosecutors are forced to rely on stereotypical perceptual cues regarding race. These racial cues then help prosecutors identify defendants more deserving of harsh punishment (Bridges & Steen, 1998). This widespread belief among prosecutors, and among the general populace (Johnson, Stewart, Pickett, & Gertz, 2011), that Black criminal defendants are more deserving of harsh punishment then elevates the amount of time and resources the state directs at prosecuting the defendant. However, it is important to recognize that the focal concerns guiding prosecutorial decision making are similar but not identical to those concerns that guide judicial decisions (Danzigera, Levavb, & Avnaim-Pessoa, 2011; Hartley, Maddan, & Spohn, 2007; Spohn & Holleran, 2000). Thus, although both judges and prosecutors rely on factors such as the perceived dangerousness of the defendant and the degree of harm inflicted, the practical concern of likelihood of conviction rather than the cost associated with punishment tends to influence prosecutors (Hartley et al., 2007). Nonetheless, both prosecutors and judges employ racialized perceptual shorthands to guide their decisions when confronted with incomplete case information and time constraints.

Defendants subjected to racial discrimination early in the criminal justice process may also become discouraged with defending themselves because such resistance, after initial setbacks, seems futile in determining their ultimate outcome (Abramson, Seligman, & Teasdale, 1978). A defendant's ability to defend himself or herself against the state also dwindles as he or she progresses through the criminal justice system. As Schrantz and McElroy (2000, p. 2) write, "... if bail practices result in minorities being detained before trial at greater rates than similarly situated whites, they will also be disadvantaged at trial and sentencing by having reduced access to defense counsel, community resources, and treatment options." Studies find that a defendant's race plays a noteworthy role in determining pretrial detention and that being held pretrial results in a harsher sentencing outcome later in the criminal justice process (Zatz, 1985). Thus, racial discrimination that occurs early in the criminal justice system may magnify the likelihood of racial discrimination transpiring at later stages.

It is also possible that racial discrimination is less rather than more likely to occur at decision points later in the criminal justice system. Dismissals, sentences to

probation, and other criminal justice processing factors ultimately reduce the number of criminal cases that move forward in the criminal justice system. Criminal cases resolved early in the criminal justice process can decrease variation in the demographic characteristics of criminal defendants at later decision points (Berk, 1983). This situation is problematic when attempting to study the influence of race on criminal sanction because "...if defendants become more sociologically homogeneous as they move through successive stages of criminal processing (Farnworth & Horan, 1980), failure to control for this selection process may mask the impact of race and other extralegal factors on sentencing decisions" (Miethe & Moore, 1986, p. 218). Indeed, some observers note that race plays a salient role in the attrition of cases in that "the general resulting pattern is that white and middle class defendants are more likely to be filtered out of the system at earlier decision points than are poor defendants and defendants of color..." (Zatz, 2000, p. 507). The effect of race on outcome might then diminish as a defendant progresses through the criminal justice system simply because defendants become more racially homogenous at the later stages of criminal processing. However, the converse may also be occurring—the winnowing of White defendants out of the process at earlier stages may leave the criminal justice system with Whites who are "truly deserving" or criminally culpable compared to Blacks and other racial minorities who may display greater variation in their legal culpability (e.g., strength of evidence against defendants).<sup>3</sup> In other words, the appearance of reduced racial discrimination at later decision points may be misleading due to relative legal culpability of Whites and Blacks (other minorities) whose cases have progressed further into the system.

Overall, although the effect of a defendant's race on the severity of imposed sanction may not be statistically significant at any one decision point in the criminal justice system, it is certainly plausible that a small, statistically unobservable effect at more than one decision point may in fact have a substantive "overall" discriminatory effect when more decision points are considered (Crutchfield, Fernandes, & Martinez, 2010).<sup>4</sup> As Blank, Dabady, and Citro (2004, p. 223) point out in regard to racial discrimination generally:

... studies might measure small effects of discrimination at each stage in a domain (e.g., hiring, evaluation, promotion, and wage setting in the labor market), thus leading one to conclude that discrimination is relatively unimportant because the effects at any point in time are small. However, these small and non-statistically discernable effects... could cumulate into substantial differences.

Thus, if one were to consider the effect of race on the severity of imposed sanction at all the different criminal justice decision points, an overall race effect might emerge even when an effect was not statistically discernible at any single decision point.

Finally, most prior studies on the role of race in criminal justice decision making have been confined to a single court, a single district, or even a single state (Mitchell, 2005; see also Frase, 2009). Hence, the equivocal nature of prior findings may be due to jurisdictional or regional differences in the role of race in criminal justice decision



making, as a number of scholars have debated (Blumstein, 1993; Frase, 2009; Johnson et al., 2008; Mauer, 1997; Sorensen et al., 2003). A study based on national sample of criminal courts would serve to reduce this concern.

There have been a limited number of studies that have examined multiple decision points in the processing of a criminal defendant, with most of these studies either failing to find evidence of racial discrimination or finding that racial minorities are advantaged at certain decision points. For instance, Kingsnorth, MacIntosh, and Wentworth (1999), using data tracking 265 sexual assault cases from Sacramento County (California), failed to find evidence of racial bias at four decision points (decision to prosecute, trial vs. guilty plea, and jail vs. prison sentence and length of sentence). Wooldredge and Thistlewaite (2004), examining a sample of over 2,000 male misdemeanor domestic assault arrestees from an Ohio court, found that Blacks received *shorter* jail sentences and were *less likely* to be charged or prosecuted, controlling for socioeconomic status and other legally relevant factors. More recently, Shermer and Johnson (2010), who examined charging and sentencing outcomes in federal court, discovered that race played no significant role in overall charging decisions but found that Blacks (and Hispanics) received longer sentences (after controlling for charging decisions). And Wooldredge (2012) failed to find evidence of a direct race effect on pretrial release decisions (release on recognizance and bond amounts) and prison sentences once legal factors such as offense severity were considered in his analysis of over 5,000 felony defendants from an urban district in Ohio. However, Wooldredge did find that an interaction term that comprised race and age was a statistically significant predictor of pretrial release and sentencing decisions, finding that young Blacks experienced lower odds of favorable pretrial decisions and higher odds of incarceration. Overall, these studies demonstrate the complexities and subtleties associated with evaluating the role of race at multiple decision points in the criminal justice process.

### Current Study

Rather than focusing our attention on the effect of a defendant's race at one or two individual decision points that pepper the criminal justice system like most previous research, the current study generates an estimate of the "cumulative effect" of a defendant's race on the severity of state-imposed sanction by considering multiple decision points in the processing of a criminal defendant. A determination is first made of the influence of a defendant's race on the severity of sanction at several decision points encountered by the criminal defendant as he or she progresses through the criminal justice system (Schlesinger, 2007). These decision points include whether release on bail was financial, whether bail was denied, the bail amount, whether the defendant made bail, whether the defendant was held pretrial, whether the case was adjudicated as a felony, whether the defendant received an incarcerative sentence, and the length of the imposed incarcerative sentence. Controls are included for offense type, prior record, and several other legal and extralegal factors. The results generated in these initial analyses were then synthesized in a meta-analysis, which is an analytic



method used to integrate the results from the existing studies to reveal patterns underlying relations and causalities (Borenstein et al., 2009), to determine whether racial discrimination exists when many individual decision points are considered in their totality.

## Methodology

We analyze data drawn from the State Court Processing data set on the prosecution of felony criminal defendants in 65 of the 75 most populous counties in the United States for the following years: 1990, 1992, 1994, 1996, 1998, 2000, 2002, and 2004 (Bureau of Justice Statistics, 2007b).<sup>5</sup> These 65 counties were measured consistently over each of these time periods. The data set contains information on the prosecution of felony cases filed in May of even numbered years. Each felony case prosecuted in state court was tracked until the final disposition of the case was reached or until 1 year had passed since the filing of the case. Information relating to the demographic characteristics, arrest charges, criminal history, pretrial detention, adjudication, and sentencing outcome for each defendant is included in the data set. The data set is advantageous for our purposes because it contains information on each criminal case as it progresses through the criminal justice system and because it has wide geographical breadth that allows for broad generalization of our results.<sup>6</sup> Prior studies have also utilized these data (e.g., Demuth, 2003; Schlesinger, 2005) but have not examined all of the available decision points (as our study does).

The variable of theoretical interest is the race of the defendant, which is coded 1 = *Black* and 0 = *White*. Controls are included in each of the analyses for several legal and extralegal factors. Offense type is a dummy-coded variable representing the criminal offense the defendant was prosecuted for. The dummy-coded, offense-type variable encompasses whether the crime was murder, rape, robbery, assault, other violent offense, burglary, larceny theft, motor vehicle theft, forgery, fraud, other property offense, drug sales, other drug offense, weapons offense, driving-related offense, or other public order offense. Other legally related factors taken into account include the number of arrest charges filed against the defendant, whether the defendant was adjudicated at the felony level, whether the defendant was charged with a second felony, whether the defendant had an active criminal justice status at the time of the arrest, and whether the defendant previously failed to appear in court.

We measure a defendant's prior record with three variables: the number of prior felony convictions, the number of prior misdemeanor convictions, and the number of prior prison admissions. Because preliminary analysis revealed excessive collinearity among these prior record variables, factor analysis was used to amalgamate them into a criminal history index (see Table 1). Prior research suggests that a composite measure of prior criminal record has a stronger influence on severity of punishment than single-dimension indicators such as prior convictions or prior incarcerations (Vigorita, 2001).

Hispanic origin, gender, age, and type of attorney were the extralegal factors included in each of the estimated models. Many of these variables are salient in determining

**Table 1.** Principal Component Analysis.

	% of Variance	Prior Record Component
Number of prior felony convictions	66.024	.883
Number of prior prison incarcerations	23.070	.846
Number of prior misdemeanor convictions	10.906	.696

severity of sanction (Myers & Talarico, 1987). Because juveniles transferred to adult court are included in the data set and because there is a possibility that elderly defendants are treated more leniently by the criminal justice system, we modeled the effect of a defendant's age as a second-order polynomial to determine whether a curvilinear relationship existed between age and severity of punishment.<sup>7</sup> If the relationship between the age and severity of sanction conforms to an inverted U-shaped pattern, the sign of the coefficient for the age variable should be positive and its square negative.

Additionally, because a number of studies report that the combination of race and other defendant characteristics are important in predicting criminal justice outcome (Spohn, 2000; Ulmer, 2012), we added an interaction term between race and prior record to the analysis to determine whether Black criminal defendants with severe prior criminal records are punished more harshly. Black defendants with lengthy criminal histories are speculated to receive more severe sanctions because they engender a greater degree of moral panic in society.

Because the selection of certain defendants for further criminal justice processing may result in a nonrandom subsample of defendants at later stages of the criminal justice system, we felt it appropriate to incorporate a "hazard rate" variable into the equations using the Heckman's two-step method as a means to help account for these selection effects (Heckman, 1979). The attrition of cases is an issue of concern that warrants attention because it may bias parameter estimates (Berk, 1983). This is especially true when examining the effect of race on sanctioning since White rather than Black defendants are more likely to filter out at earlier stages of the criminal justice process (Zatz, 1985). In all, 39% of the White defendants, as compared to 35% of the Black defendants prosecuted in the 65 counties, never reached the length of sentence decision point. Not only the hazard rate variable attenuates bias by controlling for the attrition of defendants as they progress through the criminal justice system, but it also acts as a control for offense severity (Myers, 1987). Table 2 presents the means, standard deviations, and definitions for all the variables.

## Results

We used logistic regression and ordinary least squares regression to estimate the different models depending on the measurement of the dependent variable. We selected a 10% random sample for each of the eight criminal justice system decision points. Because we examine different defendants at each decision point, the race effect size generated in one model is statistically independent of the race estimate generated

**Table 2.** Means, Standard Deviations, and Definitions for the Variables.

	Mean	Srd. Dev.	Total N	Definition
Financial release	0.47	0.50	67,014	Coded 1 if the defendant was granted a financial pretrial release, 0 if the defendant was granted a nonfinancial pretrial release
Denied bail	0.08	0.26	113,204	Coded 1 if the defendant was denied bail, 0 if the defendant was released or held on bail
Bail amount	36,093.51	157,464.88	63,900	Bail amount in dollars
Held on bail	0.52	0.50	63,900	Coded 1 if the defendant given bail was unable to post bail, 0 if the defendant given bail was able to post bail
Pretrial incarceration	0.38	0.48	113,204	Coded 1 if the defendant was detained pretrial, 0 if the defendant was released pretrial
Adjudicated as felony	0.85	0.36	101,728	Coded 1 if the defendant was adjudicated at the felony level, 0 if the defendant was adjudicated at the misdemeanor level
Sentenced to incarceration	0.72	0.45	65,253	Coded 1 if the defendant was sentenced to incarceration, 0 otherwise
Sentence length	29.13	55.63	46,013	Sentence length in months
Defendant Black	0.56	0.50	97,346	Coded 1 if the defendant is Black, 0 if the defendant is White.
Defendant Hispanic	0.25	0.43	99,728	Coded 1 if the defendant is Hispanic, 0 otherwise
Defendant male	0.83	0.37	118,198	Coded 1 if the defendant is male, 0 otherwise
Defendant age	30.03	9.99	117,217	Age of the defendant in years
No. of charges	2.36	2.75	91,771	Total number of arrest charges
Second felony charge	0.39	0.49	118,419	Coded 1 if the defendant was charged with a second felony, 0 otherwise.
Active CJ status	0.36	0.48	104,053	Coded 1 if the defendant had an active criminal justice status when arrested, 0 otherwise
Prior FTA	0.31	0.46	108,336	Coded 1 if the defendant had previously failed to appear for a court appearance, 0 otherwise
Public defender	0.80	0.40	69,534	Coded 1 if the defendant was assigned a public defender or private attorney by the court, 0 if the defendant retained a private attorney
Prior record	0.00	1.00	102,441	Factor scores from principal component analysis of three variables: (a) number of prior felony convictions, (b) number of prior misdemeanor convictions, and (c) number of prior prison incarcerations

Note. CJ = criminal justice; FTA = failed to appear.

in another model. The meta-analysis procedure we use to generate an overall race effect assumes that the individual race effect sizes are statistically independent.

Table 3 shows the results for the models estimated for the eight different decision points. A visual examination of Table 3 shows that the effect of race is not consistently statistically significant in either the positive or the negative direction across the different decision points. Two of the eight tests show a statistically significant race effect. Black defendants are more apt to receive an incarcerative sentence and a longer incarcerative sentence when applied than are Whites. There is little evidence of a strong race effect on the granting of financial release, the denying of bail, bail amount, held on bail, pretrial incarceration, and whether the defendant was adjudicated as a felon. However, although the effect of race is not statistically substantive for these six decision points, it is unwise to overlook the substantive significance of race for a couple of reasons. First, the coefficients for the race variable generated in five of these equations are in the positive direction. Although such a result might be due to randomness, it gives pause for one to ponder the possibility that racial disparity may be present to some small degree at these decision points. Second, even trivial amounts of racial disparity observed at multiple decision points might be relevant if they accumulate to generate substantial disparity over the entire system.

An examination of Table 3 also reveals a harmonious relationship between several of the control variables and severity of the official state sanction. Similar to Spohn, Gruhl, and Welch (1981–1982), we find that defendants assigned a public defender tend to receive stiffer sanctions than those relying on the services of a private attorney. Legal variables such as prior record, number of charges, second felony charge, and active criminal justice status are also generally relevant in determining a defendant's outcome. There is little evidence that Hispanics face more severe punishment than non-Hispanics. The Hispanic variable is not statistically significant in any of the estimated equations. These results are interesting in that they fail to support the work of Schlesinger (2005) who found that Hispanic defendants received harsher punishment than either White or Black defendants during criminal processing.

The sanctioning of defendants also varies by the sex of the defendant. Males typically receive harsher punishment than do women. Finally, the results presented in Table 3 establish that the effect of the Race  $\times$  Prior Record interaction term depends on the specific decision point. A Black defendant with a severe prior criminal record is sanctioned more harshly in determining bail amount but less harshly in the length of sentence decision. However, for the most part, the interaction effect is not substantive. The results for the other control variables are not consistently consequential in predicting criminal justice outcome.<sup>8</sup> The  $R^2$ s for the models are reported at the bottom of Table 3.

To discover whether there was an overall race effect for the criminal justice system as a whole, we used meta-analysis to synthesize the race effects produced in the individual analyses (Biostat, 2005). As previously mentioned, to circumvent the problem of statistical dependence, we examined defendants randomly selected at each decision point, and each decision outcome contributed only a single effect size for the race variable.<sup>9</sup> An effect size reflects the strength of the relationship between two variables.

**Table 3.** Logistic and OLS Regression Models Estimating the Effect of Race in the Processing of Criminal Defendants.

	Model 1 Financial Release	Model 2 Denied Bail	Model 3 Bail Amount	Model 4 Held on Bail	Model 5 Pretrial Incarceration	Model 6 Adjudicated as Felony	Model 7 Sentenced to Incarceration	Model 8 Sentence Length
Defendant Black	-.071 (.110)	.190 (.167)	.013 (.066)	.095 (.103)	.201 (.130)	.209 (.119)	.353* (.153)	.244* (.124)
Defendant Hispanic	-.143 (.308)	.254 (.304)	.068 (.103)	.524 (.285)	.258 (.187)	.005 (.277)	.153 (.229)	.184 (.155)
Defendant male	.386** (.158)	.174 (.171)	.336*** (.065)	.545*** (.135)	.687*** (.130)	-.284 (.163)	.155 (.170)	.221* (.107)
Defendant age	-.004e1 (.009)	.006 (.012)	.003 (.003)	.008 (.008)	.010* (.005)	-.006 (.007)	-.003 (.006)	-.001 (.006)
Defendant age (squared)	.037e3 (-.448e3)	-.350e3 (.483e3)	-.385e3 (.225e3)	-.174e3 (.540e3)	-.881e3*** (.255e3)	-.197e6 (-.439e3)	.016e3 (.383e3)	-.292e3 (.325e3)
No. of charges	.119*** (.033)	-.026 (.022)	.069*** (.018)	.117*** (.041)	.064*** (.019)	-.081* (.041)	.020 (.020)	.019*** (.011)
Second felony charge	.139 (.153)	.342** (.137)	.346*** (.070)	.146 (.178)	.216** (.085)	1.025*** (.196)	.183 (.143)	.481*** (.122)
Active CJ status	.168 (.110)	1.654*** (.243)	.217** (.078)	.731*** (.202)	.874*** (.117)	-.004 (.131)	.593*** (.140)	.544 (.107)
Prior FTA	.015 (.174)	-.095 (.168)	.006 (.098)	.461* (.196)	.344** (.116)	-.019 (.127)	.251 (.133)	-.152 (.092)
Public defender	-.684*** (.134)	.445** (.165)	.120* (.061)	1.840*** (.184)	1.422*** (.206)	.200 (.157)	.506*** (.158)	.008 (.125)
Prior record	.187 (.148)	.043 (.134)	.035 (.056)	.343** (.111)	.398*** (.085)	.153 (.120)	.488** (.154)	.462*** (.077)
Defendant Black × Prior Record	-.133 (.129)	-.028 (.121)	.101* (.051)	.008 (.134)	-.093 (.099)	-.061 (.107)	.014 (.135)	-.157* (.069)
Defendant Age × Prior Record	.005 (.007)	.010 (.007)	-.006e2 (.267e2)	-.006 (.010)	-.003 (.006)	-.002 (.006)	-.005 (.006)	-.004 (.004)
Constant	.607	-16.892	8.008	-3.421	-4.993	2.100	-1.565	2.491
R <sup>2</sup>	.215	.229	.535	.276	.242	.158	.237	.303
Sample N	1,888	2,937	1,803	1,871	3,426	3,385	2,309	1,573

Note. OLS = ordinary least squares; CJ = criminal justice; FTA = failed to appear. Robust standard errors are in parentheses. For ease of presentation, the results for the following variables are not reported in the table: offense category, year, county, and the hazard rate. Models 1, 2, 4, 5, 6, and 7 are logistic regression models, while Models 3 and 8 are OLS regression models. Bail amount (Model 3) and sentence length (Model 8) are naturally logged. Standard errors are adjusted for county clusters. Pseudo-R<sup>2</sup> is reported for the logistic regression models.

\*p ≤ .05. \*\*p ≤ .01. \*\*\*p ≤ .001 (two-tailed tests).

**Table 4.** Meta-Analysis Results for Defendant Race.

Model	Odds Ratio	Z Value	p Value
Financial release	.772	-.642	.521
Denied bail	2.018	1.097	.273
Bail amount	1.048	.197	.844
Held on bail	1.414	.914	.361
Pretrial incarceration	2.105	1.484	.138
Adjudicated as felony	2.171	1.680	.093
Sentenced to incarceration	3.930	2.020	.043
Sentence length	2.491	1.851	.064
Fixed	1.416	2.408	.016
Random	1.510	2.350	.019

Note. Heterogeneity  $Q = 9.218$ ,  $df = 7$ ,  $p = .237$ .

Thus, a positive effect size indicates that Black defendants receive a more severe punishment. The odds ratio represents the effect size for dichotomous outcomes, whereas the product-moment correlation ( $r$ ) is used for those decision points that have a continuous outcome. We then converted all the effect sizes onto the odds ratio scale.

We tested for homogeneity of the race effect sizes using a Q test to discern whether the various decision criminal justice decision points were replicates of each other in regard to the effect of race on severity of sanction (Cochran, 1954). An insignificant Q test failed to indicate the presence of heterogeneity ( $Q = 9.218$ , degrees of freedom [ $df$ ] = 7,  $p = .237$ ). This finding signals that the effect of race is relatively constant notwithstanding the specific decision point analyzed. When heterogeneity is not present and the effect sizes differ by only sampling error, a fixed-effect model should be used to synthesize the effect sizes. A fixed-effect model assumes that there is only one true effect size.

Table 4 reports the results for the synthesis of the race effect sizes. This table shows that the effect of race is generally in the positive direction, thereby suggesting that the criminal justice system sanctions Black defendants more severely generally. The race effect is strongest for the decision to incarcerate. Although the Q test suggests that there is little heterogeneity in the race effect sizes, the results generated for the fixed-effect model and random-effect model are nearly identical. When the fixed-effect model and random-effect model generate similar results, it is unlikely that there is a substantive amount of statistical heterogeneity (Alderson & Green, 2002: 115). A fixed-effect synthesis of the race effect sizes reveals that being Black elevates the odds of a criminal defendant receiving a severe sanction by approximately 42%.

Despite our initial null results, we decided to synthesize the effect sizes for the Hispanic variable because previous research suggests that Hispanic defendants are punished more severely than other defendants (see Table 5). A Q test failed to show any evidence of heterogeneity ( $Q = 3.135$ ,  $df = 7$ ,  $p = .872$ ). This finding suggests that the effect of the Hispanic variable in the eight equations is relatively consistent. Because of this consistency, we used a fixed-effect model to synthesize the effect sizes. A positive and statistically significant effect size would indicate that Hispanic defendants receive

**Table 5.** Meta-Analysis Results for Defendant Hispanic.

Model	Odds Ratio	Z Value	p Value
Financial release	.592	-.455	.649
Denied bail	2.593	.782	.434
Bail amount	1.280	.657	.511
Held on bail	9.317	1.334	.182
Pretrial incarceration	2.635	1.288	.198
Adjudicated as felony	1.018	.018	.986
Sentenced to incarceration	1.754	.652	.514
Sentence length	1.972	1.417	.251
Fixed	1.773	1.815	.070
Random	1.773	1.815	.070

Note. Heterogeneity  $Q = 3.135$ ,  $df = 7$ ,  $p = .872$ .

more severe punishment than do other defendants. A synthesis of these effect sizes shows that the criminal justice system when taken in its totality does not punish Hispanic defendants more severely than non-Hispanic defendants. However, it is important to keep in mind that our small sample size of just eight criminal justice decision points acts to decrease the likelihood that the summary effect will be statistically significant (Bornstein et al., 2009).

## Conclusion

Despite the tremendous amount of time, effort, and resources devoted to the study of racial disparity in the criminal justice system, it remains somewhat of a mystery as to why the findings reported in previous research are mixed. One plausible explanation for the incongruous findings is that most prior studies only scrutinized the effect of race on criminal sanction for one or two decision points, and none to our knowledge generated an overall estimate of the effect of race in the processing of criminal defendants. The dearth of quality data sets containing information on individual defendants as they progress through the criminal justice system most likely explains this oversight.

The current study attempted to add incrementally to our understanding of the relationship between race and criminal sanctioning by generating estimates of the individual and cumulative effect of race for the different decision points a defendant confronts as he or she progresses through the criminal justice system. Although results show that the effect of race varies depending on the specific criminal justice decision point examined, we evinced a substantive overall race effect in the meta-analysis. Black defendants are more apt to receive a severe criminal sanction than are White defendants. Our findings when taken in their totality not only suggest one plausible reason for why previous studies reached inconclusive results in regard to the amount of racial disparity in the processing of criminal defendants but also highlight the importance of analyzing the entire criminal justice system when attempting to discern



empirically the effect of a criminal defendant's race on the severity of imposed legal sanction. By no means, are we asserting that we have identified the sole reason for the inconsistent findings reported in the literature. What we can say is that the failure to study the criminal justice system as a whole can lead one to make erroneous conclusions regarding the influence of race on severity of imposed criminal sanction. Nevertheless, if researchers explicitly contemplate the possibility that a defendant's race has a different effect on severity of sanction depending on the specific decision point analyzed, and they carefully interpret the meaning of any statistically significant or nonsignificant race effect, an empirical analysis of a single decision point can continue to be a worthwhile approach in the study of race and criminal sanctioning.

As for the weaknesses of this study, we highlight a couple of problems that pertain to the nature of the data analyzed. First, the criminal justice system is not modeled fully because of the lack of data related to the arrest and charging decision. The decision to arrest is important because recent research suggests that race influences the likelihood that the police will arrest a criminal suspect (D'Alessio & Stolzenberg, 2003; Kochel et al., 2011). The data set also lacks information on prosecutorial decision making such as the decision to file formal charges, which are important for understanding the processing of criminal defendants (Davis, 2007–2008). As mentioned before, however, this is a flaw of virtually all studies that have attempted to examine such bias (Frase, 2009).

Another flaw is the limited number of control variables included in the analysis. Some might consider our offense type measure rather crude. For example, although studies suggest that victim injury is a salient predictor of severity of imposed criminal sanction (Nadler & Rose, 2002–2003), the data set we analyze does not contain information on whether the victim was injured during the commission of the crime. Nevertheless, although victim injury might be an important predictor of severity of punishment generally, prior research does find that crimes perpetrated by Black offenders are no more violent in regard to victim injury than crimes perpetrated by White offenders (D'Alessio & Stolzenberg, 2009). Thus, even if the severity of victim injury is associated with severity of sanction, the race of the offender should not condition this relationship.

We also lack quality information for other variables that might influence severity of punishment such as the income level of the defendant. The problem is that these types of variables are commonly missing in judicial processing data sets (Zatz, 1987). Nevertheless, the public/private attorney variable helps to act as a surrogate measure for a defendant's income level. We also do not control for the employment status of the criminal defendant. This is a consequential oversight because actors in the criminal justice system often believe that employment reduces the likelihood of further criminality by providing stability and by strengthening the individual's bond to society. Thus, because race is correlated with income level and with employment status, some readers may question whether the overall race effect reported in this study is spurious. The effect of race might have also been stronger had we appraised the possibility that Black-on-White crimes are punished more severely by the state than Black-on-Black crimes. Unfortunately, data limitations preclude us from addressing

these issues. We hope that others will be mindful of the drawbacks of this study, but there is just so much that one can do since processing data sets that follow defendants through the criminal justice system typically lack these variables.

The policy implications of our findings are threefold. First, there is little doubt that the perception of racial disparity in the punishing of criminal defendants attenuates public confidence in the criminal justice system. People in the community are not only more knowledgeable about the severity of imposed punishment than they are about the certainty of arrest or conviction, but perceived disparities in the meting out of formal sentences also offend the citizenry to a much greater degree (Harel & Uzi, 1999). This lack of confidence in the criminal justice system can amplify crime by making citizens less apt to cooperate with the police and by enhancing the likelihood that citizens will take the law into their own hands. Because physical evidence is rare at most crime scenes, the police must rely on two simple methods to link an individual to a specific crime: a police officer can observe the criminal offense and the victim or witnesses to the crime can give testimony against the alleged offender. In most cases, however, the police arrives too late to see the criminal offense being committed. Accordingly, the police usually rely on the testimony of the victim and or one or more witnesses to gather the necessary evidence to make an arrest. However, because many Blacks perceive the criminal justice system as being biased against them, they are much less likely than Whites to cooperate with the police (Peffley and Hurwitz, 2010).

The perception that the criminal justice system is unfair may also increase crime by making it more likely that disillusioned citizens will take the law into their own hands when they feel personally wronged or when they see others gain an unfair advantage over them by failing to obey the law. Black (1983) argues that much of the violence we experience in society is the direct result of “self-help” that occurs when people use violence to resolve personal disputes. Self-help transpires when people feel that they do not have access to the law and that legal institutions are unlikely to assist them in resolving their grievances with others. Altruistic punishment may also be imposed against others, notwithstanding the occurrence of any personal wrong, when the punisher feels that an individual gained an unfair advantage by violating the law. Altruistic punishment benefits the society by enhancing informal social control, but it also has costs for the punisher that he or she is willing to absorb to generate a feeling of self-satisfaction (Rockenbach & Milinski, 2006).

Racial disparity in the criminal justice system can also lead to negative outcomes in the workforce and the health care system (Sampson & Laub, 1997). For example, receiving a prison sentence not only reduces an individual’s lifetime earnings between 10% and 30% (Western, 2006), but it “. . . creates powerful barriers to finding legal employment by discouraging potential employers, interrupting employment history, eroding job skills, and undermining social connections to stable job opportunities” (Roberts, 2004, p. 1293). And these barriers to successful workforce reintegration appear to depend on a person’s race since a White with a criminal record has a substantially better chance of finding a job than a Black without a criminal record (Pager, 2003). The lack of stable employment also increases criminal recidivism (Visher, Debus-Sherrill, & Yahner, 2011).

In addition to these negative outcomes, the racial inequality experienced by a criminal defendant has adverse consequences for family members and the community. For example, if racial disparity in the criminal justice system ultimately results in incarceration, family members often have to find ways to compensate for the lost income provided by the incarcerated individual. This situation is especially problematic when the incarcerated individual is the family's primary breadwinner. The family of the incarcerated individual also has to expend financial resources to pay for collect phone calls from prison and for long trips to the prison to visit the incarcerated family member (Braman, 2004). Marriages interrupted by incarceration are also at high risk of ending in a divorce (Western, 2006).

The excessive sanctioning of Black citizens can also have deleterious consequences for local communities by "... undermining and disrupting families, social networks, and other communities structures (the informal, less coercive institutions of social control)—thus raising the possibility of increasing rates of crime in the future" (Clear, 2009; Rosich, 2007, p. 18). The persistence of pervasive racial disparity in the criminal justice system can also result in an unbalanced sex ratio in local communities. The sex ratio is defined as the ratio of men to women in the population. A high sex ratio indicates more men in the population than women, whereas a low sex ratio denotes more females than males in the population. In some neighborhoods, for example, the excessive sanctioning of Black males has created a situation in which there are fewer than 62 men for every 100 women (Braman, 2004). Hence, it is not surprising that the rate of out-of-marriage births and the proportion of unmarried women in many Black communities are so high (Wilson, 1996).

Finally, the excessive sanctioning experienced by a criminal defendant can have detrimental cross-generational effects by decreasing the educational and earning opportunities of the defendant's offspring, by attenuating accumulated wealth and by reducing the individual's lifetime earning potential. For example, if excessive sanctioning ultimately results in the incarceration of an individual with child care responsibilities, the forced separation of the imprisoned parent from his or her children can produce harmful psychological consequences for the child such as depression, anxiety, feelings of rejection, and anger (Roberts, 2004). These deleterious consequences could in turn increase delinquency and substance abuse. Not surprisingly, children of incarcerated parents are five times more likely to end up in prison themselves as compared to children whose parents were not incarcerated (Petersilia, 2002).

As for the ramifications of our findings for future research, we believe that "policy-makers should continue to scrutinize sentencing policies and procedures with an eye toward determining whether the reforms incorporate, intentionally or unintentionally, substantive or procedural loopholes that foster unwarranted disparity in sentencing" (Spohn, 2000, p. 481). Our findings reiterate the point that policies designed to reduce racial disparity in the prosecution and sentencing of criminal defendants may not be having their intended effect (Tonry, 1998). Given the enormous financial, psychological, and social cost of racial discrimination to the society (Feagin & McKinney, 2003), the empirical evidence presented here suggests that much more needs to be done to make the criminal justice system color-blind.

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## Notes

1. Racial threat theory is also compatible with the focal concerns perspective because of its emphasis on increasing the social control of groups threatening White interests (Wang & Mears, 2010). Recent versions of this approach focus on the role of minority stereotypes influencing an individual's fear of crime and the resulting pressure placed upon public officials to respond to this perceived threat (Keen & Jacobs, 2009). Similar to others, we view racial threat theory and the focal concerns perspective as complementary rather than competing.
2. Virtually all prior studies of possible race-based discrimination for criminal defendants is flawed by the omission of the role of race in determining whether or not someone comes into contact with the criminal justice system in the first place, including (but not limited to) the arrest decision (D'Alessio & Stolzenberg, 2003; Kochel et al., 2011). Unfortunately, our study, like others in this research tradition, will only examine what happens to criminal defendants, so the role of race in criminal justice outcomes is likely underestimated.
3. Also see Petersilia (1983) who found that prosecutors, likely attempting to correct the role of race in making an arrest by the police, were more likely to decline prosecution of Black arrestees than Whites.
4. The opposite of cumulative disadvantage is cumulative advantage that is commonly referred to as the Matthew effect (Merton, 1968).
5. A two-stage stratified sampling procedure, with the appropriate weighting of cases, was employed to collect the data. In the first stage, a stratified sample was used to select the counties. In the second stage, a systematic sample of felony filings within each selected county was drawn. The weight of each case is equal to the inverse probability of selection into the sample.
6. It is plausible that criminal defendants prosecuted in one county are more similar to each other than to criminal defendants prosecuted in another county. We addressed this issue by using the statistical procedure for clustering (robust standard errors) contained in Stata Statistical Software, Release 11 (StataCorp, 2011). However, this correction for the clustering of cases had little effect in influencing our results.
7. We expressed these two variables as deviations from their respective means to help reduce collinearity (Aiken & West, 1991).
8. We also estimated all the equations without the control for sample selection bias. The effect of the race variable, the Hispanic variable, and nearly all of the other independent variables remained stable in each of the equations without the hazard rate variable.
9. Nevertheless, because researchers conducting empirical studies receive similar training, it is likely that social dependence compromises statistical independence in meta-analytic studies (Berk & Freedman, 2003).

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