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The Intersection of Crime Seriousness, Discretion, and Race: A Test of the Liberation Hypothesis

William Hauser and Jennifer H. Peck

Spohn and Cederblom’s interpretation of the liberation hypothesis asserts that with trivial crimes, judges are “liberated” to consider extra-legal attributes such as race when making sentencing decisions. The current study posits that this perspective may be too theoretically simplistic because it fails to distinguish between the concepts of discretion and uncertainty. In light of this argument, we examine the sentencing decisions of felony cases in the Florida circuit courts. Results indicate that blacks and Hispanics are more likely to be imprisoned than whites, and males more so than females. Contrary to expectations, this disparity increases with crime seriousness. Consistent with the imprisonment model, blacks and males receive longer sentences and the effect increases with case seriousness. We found no evidence that the effect of offender extra-legal attributes depends upon the characteristics of the judges handling the cases. Suggestions for future research and implications for the liberation hypothesis are discussed.

Keywords: criminal sentencing; liberation hypothesis; discretion; race; ethnicity

Judicial decision-making has been a consistent subject of empirical inquiry in the field of criminology and criminal justice. Research surrounding the sentencing of criminal offenders has focused on various theoretical explanations.
(e.g. Farrell & Holmes, 1991; Steffensmeier, Ulmer, & Kramer, 1998) to understand "what matters" in judicial sentencing. Implicit within these perspectives is the issue of unwarranted sentence disparities based on extra-legal characteristics of offenders (i.e. race, gender, age, and employment status). The race of the offender is one extra-legal factor that has received special attention and been shown to affect sentencing decisions (Spohn & Holleran, 2000; Steen, Engen, & Gainey, 2005). Additional research has indicated that race differences in sentencing outcomes occur as a consequence of the exercise of judicial discretion (Albonetti, 1991; Spohn & Cederblom, 1991; Wooldredge, 2010).

Few studies have directly examined the variation in judges’ sentencing behavior based on a more stringent interpretation of the liberation hypothesis (Kalven, Jr. & Zeisel, 1966; Spohn & Cederblom, 1991) and how this variation corresponds to the race of the offender. The liberation hypothesis posits that race differences in sentencing outcomes to the disadvantage of blacks will only be apparent in less serious cases (see Spohn & Cederblom, 1991). We posit that this argument may be too theoretically simplistic because it fails to distinguish between uncertainty and discretion which both tend to be maximal among less serious cases. Spohn and Cederblom (1991) concluded that their results provided dramatic support for their theoretical interpretation of the liberation hypothesis. We argue that this conclusion may have been premature and could have instead resulted from a failure to recognize important methodological shortcomings.

In light of the substantive and methodological limitations and an overall void in the literature that has tested the liberation hypothesis, the current study examines the sentences judges assigned to white, black, and Hispanic felons in the Florida circuit courts from 1998 through 2006. As with the research by Spohn and Cederblom (1991) and prior studies of judicial sentencing (Spohn, 1990; Steffensmeier & Britt, 2001; Steffensmeier & Hebert, 1999), decision-making is modeled at two processing junctures: (1) whether or not the offender was sentenced to prison (i.e. the in/out decision); and (2) the minimum predicted sentence (in months) of confinement (i.e. sentence length). The results have the potential to provide greater insights into the contexts of race/ethnicity effects in judicial decision-making and to offer potential theoretical and methodological refinements to future empirical examinations of the liberation hypothesis.

The Liberation Hypothesis

The liberation hypothesis is one theoretical perspective that identifies certain case conditions that may influence court actors’ decisions (Kalven, Jr. & Zeisel, 1966). Kalven, Jr. and Zeisel (1966) originally formulated the liberation hypothesis by examining the circumstances that affected jury decision-making in sexual assault cases. They identified certain case conditions (e.g. contradictory
or weak evidence) that “liberated” jurors to consider extra-legal factors such as their own personal values or their beliefs about the victim when determining case outcomes. In other words, they found that jurors allowed their own beliefs and feelings to invade their decisions but only when the sexual assault was less serious with weak evidence.

Spohn and Cederblom (1991) applied this logic to the sentencing decisions of judges and hypothesized that decision-making will be strongly bound to legally relevant factors by the seriousness of the offense. For example, an individual charged with murder would undoubtedly warrant harsh punishment regardless of other legal characteristics. Stated differently, judges are less likely to be “liberated” from the legal factors of the case and cannot therefore base decisions on their own perceptions and stereotypes. Decisions about the appropriate sentence in a given case are based more on legal criteria and less on personal feelings when the crime is serious (Guevara, Boyd, Taylor, & Brown, 2011). In regards to less serious crimes where evidence might be weak, judges may have more discretion, be more inclined to use it, and let personal typescripts and racial stereotypes influence their decisions. In turn, less serious offenses with limited evidence can result in judges being “liberated” from the known facts of the case and they may consider extralegal factors to fill the information void (Spohn & Homey, 1993).

When a crime is considered less serious, the appropriate punishment is not easily discerned from the nature of the offense. It is in these comparatively trivial cases that the judge might rely on extra-legal factors in an attempt to identify offenders who are best suited for harsh treatment. These offenders may be considered those that are best able to “do time,” are most likely to recidivate, and/or most culpable (Steffensmeier et al., 1998). Prior research also suggests that judges may rely on stereotypes in an attempt to reduce uncertainty (Albonetti, 1991) and routinize decision-making (Farrell & Holmes, 1991; Sudnow, 1965). In as much as criminal stereotypes connote race (see Chiricos, Welch, & Gertz, 2004), cases where judges have room to consider offender stereotypes are likely to also be those where race and ethnicity “matter” in the decision-making process.

Prior Research

Although a full review of the literature surrounding all empirical examinations of the liberation hypothesis is beyond the scope of the present study (see also Smith & Damphousse, 1998), it should be noted that scholars have examined the applicability of the liberation hypothesis to juries (Devine, Buddenbaum, Houp, Studebaker, & Stolle, 2009; Farrell & Givelber, 2010; Reskin & Visher, 1986), prosecutors (Spear & Spohn, 1997; Spohn & Homey, 1993), and juvenile court judges (Guevara et al., 2011; Taylor, Guevara, Boyd, & Brown, 2012). Additional studies have also been conducted concerning judicial decision-making and the liberation hypothesis, but did not focus primarily on race (i.e. Devine et al.,
2009; Spohn & Homey, 1993). In light of this acknowledgement, the discussion below will focus strictly on investigations of the liberation hypothesis surrounding racial disparities in sentencing.

Less than a handful of studies have examined the effect of legal (i.e. crime seriousness) and extralegal (i.e. race) factors on sentencing outcomes based on the theoretical assumptions of the liberation hypothesis. Of those studies that have been conducted, results have been mixed in terms of the degree of support for the theoretical perspective. As introduced earlier, Spohn and Cederblom (1991) used the liberation hypothesis to explore the possibility that race differences in sentencing outcomes would be confined only to less serious cases. While the effects of race and crime seriousness were examined at the “in/out” incarceration decision and sentence length decision, support for the liberation hypothesis was only found in the decision to incarcerate an offender. In less serious cases, black offenders were at a higher risk of being incarcerated compared to whites, but this effect was not found for sentence length.

More recently, Chen (2008) tested the extent to which the liberation hypothesis was applicable in a sample of inmates who were subjected to the “Three Strikes and You’re Out” law and were housed in the California prison system in 2006. Results indicated that racial differences were greater for offenses that were characterized as “wobblers.” “Wobblers” were considered cases that could be filed by prosecutors as either felonies or misdemeanors. Chen (2008) argued that some degree of support was offered for the liberation hypothesis based on the finding that judicial discretion was exercised more frequently for less serious offenses, which resulted in disadvantaged outcomes for blacks, but worked to the advantage of Latino and white offenders.

Most recently, Ulmer, Light, and Kramer (2011) examined federal judges’ use of discretion in sentencing across four time periods described as follows: (1) pre-2003 PROTECT (Prosecutorial Remedies and Other Tools to end the Exploitation of Children Today) act, (2) post PROTECT which reduced downward departure mechanisms for sex offenses and relaxed standards for appellate review of downward departures, (3) post US v. Booker which rendered the guidelines advisory, and (4) post Gall v. US which declared that larger departures from the guidelines do not require more substantial justifications. The authors argued that the influence of extra-legal characteristics (i.e. race) on sentencing outcomes would be larger after the Booker and Gall decisions which dramatically expanded judicial discretion. With two exceptions, race and ethnic disparities in sentencing outcomes were not significantly different across pre and post-Booker. The two exceptions included a greater likelihood of imprisonment for Hispanic offenders compared to whites after the Gall decision compared to pre-PROTECT time periods, and after the Gall decision compared to after the Booker decision. Black offenders received longer sentences than whites, but this disparity actually decreased after Gall when judicial discretion was expanded. Overall, if the Booker decision was “liberating” by affording judges more discretion it did not increase racial/ethnic disparities in sentences.
In summary, conflicting findings have emerged based on prior studies that have examined the relationship between judicial discretion, crime seriousness, and race. In the next section, we propose theoretical modifications that we hope bring clarity to the liberation hypothesis as applied to judicial sentencing behavior. We also discuss the potential for methodological choices to provide more insight on the conclusions that have been drawn from extant research.

Theoretical Refinements

We argue that earlier research surrounding the liberation hypothesis has ignored the role of discretion which, like uncertainty, is connected to the seriousness of the offense. To clarify, by certainty we are not referring to certainty of guilt. Since the offender has been convicted (most likely by admitting his own guilt in exchange for sentencing considerations) (e.g. Newman, 1956), we believe that the judge has little doubt about the strength of the evidence. We claim instead that uncertainty is found in 5 interrelated components about the offender: (1) "just deserts" from factors such as remorse, intent, and victim injury; (2) the likelihood of recidivating; (3) degree of dangerousness; (4) level of culpability; and (5) capacity to "do time" (i.e. Albonetti, 1991; Steffensmeier et al., 1998). The so-called "appropriate sentence" is a consequence of these factors and the weight judges assigns to each component, which we might describe as each judge’s punishment philosophy.

Importantly, issues related to uncertainty are separate from those related to the degree of discretion the judge has available in any particular case. Discretion is "liberating" in the sense that the judge has leeway in the outcome an offender will receive. Therefore, with discretion the judge can treat legally similar offenders differently on the basis of race or sex. In contrast, uncertainty about the offender may tempt the judge to consider extra-legal factors in an effort to determine the appropriate or "best" sentence for an offender. We expect that unwarranted disparity will be maximal when uncertainty is high and discretion is present. The shape and degree of discretion available to judges will generally be determined by the structured sentencing scheme(s) (i.e. presumptive guidelines, mandatory minimums, etc.). The Florida circuit court data we analyze for the present study are informative in this regard.

Under Florida’s sentencing guidelines and the Criminal Punishment Code, cases are assigned a score primarily reflecting crime seriousness and prior record. The point score is instrumental in determining which offenders go to prison and the subsequent sentence length. Point scores less than 22 are mandated to a non-state prison sanction unless the judge makes a written finding that a non-prison sentence presents a danger to the public.¹ Point scores

¹ The offense must be a third degree felony and cannot be a forcible felony. See also Florida Statute 775.082(10) for a full description.
greater than 44 require that an offender be sentenced to prison unless the judge makes a written finding validating a downward departure. The sentence length in months cannot be, absent a departure, less than the point total minus 28 and multiplied by .75. Thus, for the imprisonment decision, discretion is maximal in the midrange of overall case seriousness. For sentence length considerations, discretion is essentially uniform at all levels of case and offense seriousness. Importantly, we use data from 1998 to 2006. During this time the guidelines actually permitted judges to sentence any felony offender to prison, not simply those in the midrange. As the Florida guidelines demonstrate, judicial discretion is limited in important ways by the intricacies of the structured sentencing scheme in place. Our argument is simply that analyses of a “race effect” should be sensitive to these intricacies.

We believe that uncertainty about the offender will be maximal for crimes that are neither trivial nor serious. Offenders at the trivial end of the spectrum will probably be seen as low risk and not deserving of prison, regardless of race. Similarly, offenders at the serious end of the spectrum are high risk and are going to go to prison regardless of their race. This conclusion was best articulated by Paternoster in his study of capital sentencing, “Once revulsion reaches a certain level, they [judges] have little choice but to seek the death penalty ... once a threshold of heinousness that has nothing to do with race has passed, the death penalty will inevitably be requested” (Paternoster, 1984, p. 472). In the midrange of seriousness, however, the judge is forced to balance the costs of imprisonment with the reasonable (but not certain) risks of recidivism. Race or sex and the corresponding stereotypes and biases could, in this scenario, tip the scale toward or away from imprisonment.

Consistent with our argument, earlier studies of the liberation hypothesis as applied to death penalty cases have found that racial differences were located in cases or crimes that were of midrange seriousness. For example, Barnett (1985) disaggregated homicide cases into three categories of “seriousness” and found that the race of the offender only affected the likelihood of a death sentence in the middle range of the seriousness scale, not the least serious category. Baldus, Woodworth, and Pulaski, Jr. (1985) similarly found that race differences in sentences were most prominent in the mid-range of homicide cases or the midsection of the crime seriousness scale. Most recently, Sorensen and Wallace (1995) found support for race differences in mid-range aggravated homicide cases in the decision to proceed to penalty trials for those convicted of capital murder.

Methodological Considerations

Unlike Spohn and Cederblom (1991), we do not partition our analyses by crime seriousness. We believe that this approach suffers from a critical flaw in that the subsamples of those with high levels of seriousness lack variation. For example, for individuals charged with robbery and homicide, the incarceration rates were 91 and 93%, respectively; the incarceration rate for rape was 83%.
In each of these analyses race was not a significant predictor of the probability of imprisonment. This may be because race had no effect on decision-making, or it could have plausibly resulted from the lack of variation in the outcome variable.

In assault cases (described by Spohn and Cederblom as a less serious crime), race was significant but the variation in the outcome was also near maximal as 53% of those convicted were sentenced to prison. Additionally, with the exception of robbery, the sample size for the assault model was the largest of all the subsamples \( (n = 1,081) \). For comparison, race was also not statistically significant for "other sex offenses," an even less serious crime (assuming that 44% of "other sex offenses" were imprisoned is a reasonable indicator of seriousness). However, there were only 299 of these cases; the sample size for the robbery analysis was more than 3 times larger. Thus, the finding that race mattered for assault but not for other crimes may have resulted from a combination of minimal variability in the outcome and small sample sizes. Lastly, we should also note that assaults were not trivial in terms of the likelihood of imprisonment. Consistent with our speculation, assaults were in the midsection of crime seriousness where the probability of imprisonment was near 50%.

There are also issues related to the proper interpretation of non-linear models such as logit and probit. In these modeling frameworks, the effect of any single predictor is necessarily dependent on the level of the covariates. For example, imagine two hypothetical offenders, alike in all respects except that Offender A has a prior felony conviction and Offender B does not. Now suppose these offenders have both been convicted of a very serious crime for which imprisonment is virtually guaranteed. Offender A’s prior record will likely be inconsequential. However, if both offenders committed less serious crimes, then Offender A’s prior record might matter tremendously. This is the argument we have put forth in theoretical terms in the preceding section. Our point is that this argument has a statistical corollary that is a necessary consequence of non-linear models. Recognition of this fact in the context of the liberation hypothesis is important because failing to do so results in misleading conclusions drawn from the results.

The widely used logistic model produces coefficients in the familiar odds ratio metric. Unfortunately (and often ignored), odds ratios reflect the change in the baseline odds for a 1 unit change in the independent variable. Thus, if the baseline odds are a ratio of successes (i.e. imprisonment) to failures (i.e. not sentenced to prison) then the odds ratio is a confusing ratio of ratios. For example, given a baseline odds where either very few successes occur or very few failures occur, a small difference between two groups of hypothetical offenders in successes (i.e. number of offenders sentenced to prison) will result in a large odds ratio. In contrast, the difference in the probability of imprisonment will be negligible. If both groups reflected crimes of varying seriousness, then we would draw very different conclusions about the effect of belonging to a certain group depending on which metric (i.e. odds ratios or probabilities) we choose. Our position is that for the purposes of evaluating
the liberation hypothesis, odds ratios are inappropriate and lead to misleading inferences because the baseline odds of imprisonment will vary with crime seriousness.

The Present Study

Based on earlier examinations of the liberation hypothesis, we employ more stringent methodological and statistical improvements over earlier work (e.g. Chen, 2008; Guevara et al., 2011, Taylor et al., 2012; Spohn & Cederblom, 1991). More recent data from Florida is examined which also considers Hispanic offenders in addition to blacks. To our knowledge, only two studies included Hispanic offenders as a separate ethnic category surrounding the liberation hypothesis and decision-making by judges (i.e. Chen, 2008; Ulmer et al., 2011).

We also consider sex differences although there is not universal agreement that sex disparities are unwarranted. While Chen (2008) and Ulmer and colleagues (2011) include offender sex in their statistical models, potential sex disparities were not discussed in detail. Implications for the liberation hypothesis concerning the presence of sex differences in sentencing outcomes were not addressed. Some have argued that sex disparities reflect the effects of legally-relevant sex-linked traits such as child care responsibilities (Raeder, 1993; Wolgast, 1980; for review see Daly & Bordt, 1995). Spohn, however, concluded that potentially-relevant sex-linked traits could not fully account for the mild treatment that women receive (2009, pp. 151–153). Lastly, the current research includes judge attributes (i.e. race/ethnicity, sex) to investigate potential effects at the judge-level. Spohn and Cederblom (1991) examined the influence of judge characteristics on sentencing decisions, but to our knowledge no study considers Hispanic offenders, sex differences, and judge-level characteristics simultaneously when testing the liberation hypothesis.

Overall, we predict that offender race and sex will be conditioned by various offender, offense, and judge-related factors. Our research hypotheses are as follows:

\( H_1 \): The effect of offender race and sex will be contingent on judge race and sex with judges exhibiting leniency for offenders who share their race, ethnicity, or sex.

\( H_2 \): In the imprisonment model, racial, ethnic, and sex-based disparities will be greatest for offenders whose crimes are neither trivial nor serious.

\( H_3 \): In the sentence length model, racial, ethnic, and sex-based disparities will decrease with crime seriousness.

Data

We use data from Florida’s circuit courts for all cases sentenced between 1998 and 2006. Florida’s circuit courts handle felony cases, thus all offenders were
convicted of reasonably serious crimes. We omitted cases handled prior to 1998 because the Florida sentencing guidelines changed considerably in 1998 with the enactment of the Criminal Punishment Code. Sample sizes are generous in that the imprisonment model was estimated using 803,596 cases and the sentence length model consisted of 164,347 cases.

Measures

Descriptives for the imprisonment model and sentence length model are presented in Table 1. Overall, the probability of imprisonment was approximately 20%. The average offender was a white male convicted for drug charges, 32 years of age, who had not previously been to prison. For those sentenced to prison, the average sentence length was 53 months. As should be expected, the subset of offenders who were sentenced to prison were convicted of more serious crimes (mean seriousness score of 52, median of 34) and 13% of them had no prior record.

In the in-out (i.e. incarceration) model we measured crime seriousness as: (1) the total number of points an offender received based on the seriousness of the primary offense, (2) the seriousness of all secondary offenses, and (3) points assigned for the degree of victim injury. Primary offenses are divided into 10 levels with point values associated with each level. Secondary offenses add an additional level for misdemeanors. Victim injury points could vary from 4 to 240 points per injury and many offenses resulted in no victim injury.

Consequently, the crime seriousness variable was highly overdispersed and positively skewed. While 90% of offenders had a crime seriousness score less than 56, extremely high scores were also possible. One option was to log transform the variable; however a log transformation implies a particular functional form. Given that the hypotheses hinge on the functional form of crime seriousness (i.e. that it varies by race and sex) we preferred a restricted cubic spline or “natural spline” which makes no assumption about the correct form of the relationship. The spline has the added benefit in that it effectively limits the influence of the extreme scores because each section of the spline is estimated in piecewise fashion. A natural spline forces the relationship to be linear up to the first knot and linear after the last knot, all areas in between can curve. We selected 3 knots placed at crime seriousness scores of 16.2, 36,

2. Primary offenses were scored on 10 levels with point values associated with each level. The levels, listed first, with corresponding point values are as follows: 1 = 4, 2 = 10, 3 = 16, 4 = 22, 5 = 28, 6 = 36, 7 = 56, 8 = 74, 9 = 92, 10 = 116. Secondary and prior offenses were scored on 11 levels (a separate level is added for misdemeanor crimes). The point values for secondary offenses were, in order from lowest to highest, .2, .7, 1.2, 2.4, 3.6, 5.4, 18, 28, 37, 46, 58. Point values for prior offenses were .2, .5, .8, 1.6, 2.4, 3.6, 9, 14, 19, 23, 29. Felonies not assigned a level are based on the degree of the felony: Level 1 for 3rd degree, Level 4 for 2nd degree, and Level 7 for 1st degree.
The knots were chosen by dividing the sample into 3 groups by the rank seriousness of their primary offense (offense levels 1–3, 4–6, 7–10). The knots were then set at the 75th percentile of the "low seriousness" group, the 75th percentile of the "medium seriousness" group, and the median of the "high seriousness" group. The restricted cubic spline is represented by two variables (cubic spline1 and cubic spline2).

<table>
<thead>
<tr>
<th></th>
<th>In-out</th>
<th>Sentence length</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
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<td>Minimum expected sentence</td>
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<tr>
<td>Prison sentence</td>
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<tr>
<td>Hispanic offender</td>
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<td>.196</td>
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<tr>
<td>Black judge¹</td>
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<td>Hispanic judge</td>
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<tr>
<td>Male offender</td>
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<tr>
<td>Male judge</td>
<td>32.1</td>
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<td>Offender age</td>
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<td>Crime seriousness 2</td>
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<tr>
<td>Number of prior prison commitments</td>
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<td>.421</td>
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<tr>
<td>No prior prison</td>
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<td>.071</td>
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<tr>
<td>Burglary</td>
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<tr>
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<td>.412</td>
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<tr>
<td>Weapons offense</td>
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<tr>
<td>Other offense</td>
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<tr>
<td>Conviction by trial</td>
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<td>.119</td>
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<tr>
<td>Enhancement</td>
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<td>.445</td>
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<tr>
<td>Attempt</td>
<td>.018</td>
<td>.133</td>
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<tr>
<td>Solicitation/conspiracy</td>
<td>.004</td>
<td>.062</td>
</tr>
<tr>
<td>Reclassified</td>
<td>.001</td>
<td>.037</td>
</tr>
</tbody>
</table>

n = 803,471  164,347

Note. Dummy variables for circuit and year not shown.

¹There are a total of 581 judges in the analysis. All models adjust standard errors for the clustering of cases within judges.
²Drug offenders were the reference group.
In the sentence length model, crime seriousness was measured as the expected minimum sentence. This is the minimum amount of time in months in prison that an offender can receive absent a downward departure. The minimum sentence is calculated as \[(\text{total points} - 28) \times .75\]. The measure is simply a rescaled form of the total points. The expected minimum technically applies only to cases with a point total in excess of 44 points but we calculated it for all cases sentenced to prison as a general indicator of crime seriousness.

Controls were also included for the race and sex of the judge under the expectation that the effect of race and sex of the offender might be contingent on various characteristics of the judge who is imposing the sentence. However, only a handful of judges were either black or Hispanic and 19% were female. Coefficients for these variables and for interaction terms involving them should be interpreted with a degree of caution. These judges, while few in number, did handle a representative share of cases. The 4% of judges who are black handled 3.6% of cases (approximately 6,000 offenders). In the in-out model, prior record was controlled by using the number of prior prison stays. We also controlled for the effect of prior prison commitments as a binary measure (0 = previously committed to prison; 1 = no prior prison commitments).

The guidelines provide for several sentencing enhancements. A dummy variable was included to indicate if the offender received either an additive or multiplicative enhancement. Dummy variables were also included to indicate if the offense was attempted or was a conspiracy or solicitation charge. The latter two were represented with a single dummy variable because there were too few cases to consider them separately. In addition, we controlled for the longitudinal structure of the data with a series of dummy variables for each year. The most recent year (2006) constituted the reference category. Circuit-level effects were adjusted by including a dummy variable to indicate the circuit where the case was sentenced. Florida consists of 20 circuits. Circuit 11 (Miami-Dade) constituted the reference category.

Analytic Strategy

Consistent with Heckman (1976, 1979) a probit model was first estimated followed by the calculation of the inverse of the mills ratio to include and address

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3. The binary indicator reflects the effect of having no prior prison while the continuous count of prison stays indicates the effect of additional stays for those who have been to prison previously. More information on the piecewise coding scheme is available from the lead author by request. While the offender also receives a point score for prior record, that variable is strongly correlated with prior prison commitments \(r = .56\). The inclusion of both variables in the model complicates interpretations and introduces modest collinearity.

4. The choice of Miami-Dade as the reference group was arbitrary in nature. We acknowledge the effects of dummy variables representing circuit will be sensitive to the choice of reference group although these are not reported herein. The other variables in the model are not affected by this choice.
selection bias in the sentence length model. Both models utilized different variables to take into consideration exclusion criteria to reduce potential collinearity between the hazard rate and the predictors in the sentence length model (Bushway, Johnson, & Slocum, 2007). We initially explored hierarchical models yet decided on fixed effects models. Multi-level models imposed additional assumptions with little substantive contribution to the current study. Preliminary models estimated using the multi-level framework were substantively quite similar to the fixed effects models presented herein. We also calculated cluster-adjusted Huber-White or “robust” standard errors (Huber, 1967; Rogers, 1993; White, 1980) to address the clustering of cases within judge.

As described earlier, in non-linear models (i.e. logit or probit), the effect of any 1 independent variable is necessarily dependent on the values of the other covariates. Logistic models address this with the odds ratio. We report results from the probit model as Average Marginal Effects (hereafter “AMEs”). While not a metric often used by criminologists, the marginal effects are the expected linear change in the mean of the outcome for a one unit increase in the independent variable. The use of AMEs simplifies the discussion of the results because they can be interpreted as a linear change, even with non-linear models.

In non-linear models, marginal effects of an independent variable represent the change in predicted probability of the outcome occurring as the independent variable increases by one. Marginal effects can be calculated by: (1) holding the other covariates at their mean (i.e. marginal effects at the mean); (2) averaging over them (i.e. AMEs) or; (3) setting them at theoretically relevant values. We favor the latter two approaches. To illustrate, for the offender race measure, the AME is calculated by generating the probability of imprisonment for all cases as if all offenders were white and again as if they were black while leaving other covariates at their observed values. The difference in the average probability of imprisonment under these two scenarios is the AME of offender race. We can duplicate this procedure while setting certain covariates such as crime seriousness at specified values. This reflects approach (3) outlined above.

Results

Main Effects of Offender and Judge Characteristics on Incarceration Decisions

Table 2 displays the results from the incarceration (in-out) probit model. Both probit coefficients and AMEs are presented. It is also important to note that AMEs are averaging over all multiplicative interaction terms; thus no AMEs are

5. For a continuous independent variable the AME approximates the linear change in the mean of the outcome for a 1 unit change in the independent variable.
Table 2  Probit regression and post estimation for in-out decision

<table>
<thead>
<tr>
<th></th>
<th>MLE</th>
<th>AME</th>
<th>AME SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime seriousness 1</td>
<td>.037***</td>
<td>.010***</td>
<td>(.0001)</td>
</tr>
<tr>
<td>Crime seriousness 2</td>
<td>-.028***</td>
<td>-.008***</td>
<td>(.0001)</td>
</tr>
<tr>
<td>Black offender</td>
<td>-.061***</td>
<td>.023***</td>
<td>(.0015)</td>
</tr>
<tr>
<td>Hispanic offender</td>
<td>-.118***</td>
<td>.013***</td>
<td>(.0018)</td>
</tr>
<tr>
<td>Black offender × seriousness 1</td>
<td>.008***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic offender × seriousness 1</td>
<td>.007***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black offender × seriousness 2</td>
<td>-.008***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic offender × seriousness 2</td>
<td>-.008***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black judge</td>
<td>.029</td>
<td>-.002</td>
<td>(.0082)</td>
</tr>
<tr>
<td>Hispanic judge</td>
<td>-.015</td>
<td>-.005</td>
<td>(.0094)</td>
</tr>
<tr>
<td>Black off. × black jdg.</td>
<td>-.083†</td>
<td></td>
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<tr>
<td>Black off. × hisp. jdg.</td>
<td>-.025</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hisp. off. × black jdg.</td>
<td>-.034</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hisp. off. × hisp. jdg.</td>
<td>-.019</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male offender</td>
<td>.019</td>
<td>.048***</td>
<td>(.0013)</td>
</tr>
<tr>
<td>Male off. × serious 1</td>
<td>.011***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male off. × serious 2</td>
<td>-.012***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male judge</td>
<td>.101*</td>
<td>.012†</td>
<td>(.0067)</td>
</tr>
<tr>
<td>Male off. × male jdg.</td>
<td>-.044</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offender age</td>
<td>.001**</td>
<td>.0002**</td>
<td>(.0001)</td>
</tr>
<tr>
<td>Murder/manslaughter</td>
<td>.445***</td>
<td>.092***</td>
<td>(.0105)</td>
</tr>
<tr>
<td>Sex offense</td>
<td>-.229***</td>
<td>-.039***</td>
<td>(.0051)</td>
</tr>
<tr>
<td>Robbery</td>
<td>.445***</td>
<td>.092***</td>
<td>(.0042)</td>
</tr>
<tr>
<td>Other violent offense</td>
<td>-.154***</td>
<td>-.027***</td>
<td>(.0022)</td>
</tr>
<tr>
<td>Burglary</td>
<td>.104***</td>
<td>.020***</td>
<td>(.0024)</td>
</tr>
<tr>
<td>Other property offense</td>
<td>.176***</td>
<td>.034***</td>
<td>(.0022)</td>
</tr>
<tr>
<td>Weapons offense</td>
<td>.103***</td>
<td>.019***</td>
<td>(.0037)</td>
</tr>
<tr>
<td>Other offense</td>
<td>.211***</td>
<td>.041***</td>
<td>(.0029)</td>
</tr>
<tr>
<td>Attempt</td>
<td>.022</td>
<td>.004</td>
<td>(.0032)</td>
</tr>
<tr>
<td>Solicitation/conspiracy</td>
<td>-.006</td>
<td>-.001</td>
<td>(.0072)</td>
</tr>
<tr>
<td>Reclassified</td>
<td>.395***</td>
<td>.083***</td>
<td>(.0134)</td>
</tr>
<tr>
<td>Enhancement</td>
<td>.679***</td>
<td>.141***</td>
<td>(.0060)</td>
</tr>
<tr>
<td>Conviction by trial</td>
<td>.955***</td>
<td>.228***</td>
<td>(.0265)</td>
</tr>
<tr>
<td>Number of prior prison</td>
<td>.162***</td>
<td>.030***</td>
<td>(.0008)</td>
</tr>
<tr>
<td>No prior prison</td>
<td>-.848***</td>
<td>-.192***</td>
<td>(.0030)</td>
</tr>
<tr>
<td>AUC</td>
<td>0.874</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nagelkerke (1991) $R^2$</td>
<td>0.446</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tjur (2009) coefficient of discrimination</td>
<td>0.346</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Circuit and year dummy variables are not shown but are included in all models.† $p \leq .1$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

reported for the interaction terms themselves. As a reminder, the AME for offender race represents the average difference in the probability of imprisonment between white and black offenders. For some cases (perhaps those of
medium crime seriousness), it may be that switching racial groups results in a large effect yet for others it may have a smaller effect. The overall average across all cases is what is reported here. Additional fit statistics, classification tables, and coefficients for omitted variables are available from the lead author by request.

The model indicates that, on average, black offenders are about 2.3% more likely to go to prison than whites. Hispanics are about 1.3% more likely to be imprisoned than similarly situated whites. The largest effect is for males who are almost 5% more likely to be imprisoned than females. Judge race, ethnicity, and sex are not statistically significant in the AME metric.

Figure 1 presents a visual representation of the predicted probability of incarceration by race and ethnicity (left) and by sex (right) across levels of crime seriousness. The difference between these lines would be the AME of offender race or sex. The knots of the restricted cubic spline of crime seriousness are marked by the vertical reference lines.

Figure 1 indicates that that race and sex differences are most pronounced in the high range of the seriousness scale. In both plots, the difference between the lines is most noticeable at crime seriousness scores between 60 and 80. Although we could characterize a crime seriousness score of 70 as being "mid-range" or even "low" given that some cases in the sample have scores an order of magnitude larger, 90% of cases have crime seriousness scores less than 56 points. We specifically constructed the seriousness spline so that the three knots would correspond to low (score of 16.2), medium (score of 36), and high (score of 74) seriousness cases. Thus, results so far indicate that sex differences in the probability of incarceration are more apparent than race and ethnicity differences, especially in relatively serious cases (i.e. at or around the third knot). Differences across race/ethnicity and sex are essentially non-existent at low levels of crime seriousness. Even in the midrange of scores, differences are negligible.

Figure 1  Probability of incarceration by race and sex across crime seriousness.
Table 3  Probability of prison by race and sex at each knot of crime seriousness spline

<table>
<thead>
<tr>
<th>Seriousness at</th>
<th>Probability</th>
<th>Pairwise contrasts$^1$</th>
<th>S.E.</th>
<th>Probability</th>
<th>Pairwise contrasts</th>
<th>S.E.</th>
<th>Probability</th>
<th>Pairwise contrasts</th>
<th>S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.2 (First knot)</td>
<td></td>
<td></td>
<td></td>
<td>36 (Second knot)</td>
<td></td>
<td></td>
<td></td>
<td>74 (Third knot)</td>
<td></td>
</tr>
<tr>
<td>White males</td>
<td>.1187</td>
<td>A</td>
<td>(.00283)</td>
<td>.3065</td>
<td>(.00375)</td>
<td>.4947</td>
<td>(.00546)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White females</td>
<td>.0955</td>
<td>B</td>
<td>(.00284)</td>
<td>.2150</td>
<td>(.00378)</td>
<td>.3613</td>
<td>(.00586)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black males</td>
<td>.1275</td>
<td></td>
<td>(.00326)</td>
<td>.3603</td>
<td>(.00482)</td>
<td>.5652</td>
<td>A</td>
<td>(.00601)</td>
<td></td>
</tr>
<tr>
<td>Black females</td>
<td>.1031</td>
<td></td>
<td>(.00326)</td>
<td>.2600</td>
<td>(.00462)</td>
<td>.4282</td>
<td>B</td>
<td>(.00663)</td>
<td></td>
</tr>
<tr>
<td>Hispanic males</td>
<td>.1187</td>
<td>A</td>
<td>(.00359)</td>
<td>.3435</td>
<td>(.00519)</td>
<td>.5532</td>
<td>A</td>
<td>(.00728)</td>
<td></td>
</tr>
<tr>
<td>Hispanic females</td>
<td>.0955</td>
<td>B</td>
<td>(.00345)</td>
<td>.2457</td>
<td>(.00480)</td>
<td>.4165</td>
<td>B</td>
<td>(.00771)</td>
<td></td>
</tr>
</tbody>
</table>

$^1$At each knot race/sex combinations that share a letter are not significantly different from one another at $p < .05$. Blank spaces indicate an effect that is different from all others at that knot. Significance tests for pairwise comparisons were adjusted using Bonferroni’s method of dividing alpha by the total number of comparisons made at each knot (15).
Interaction Effects of Offender Race/Ethnicity and Sex on Incarceration Decisions

To further explore race and sex differences across crime seriousness, Table 3 presents the probability of imprisonment for each racial/ethnic and sex combination. Pairwise comparisons were conducted for all race/ethnicity-sex combinations within each knot of the crime seriousness spline. Combinations that have a letter in common are not significantly different; combinations with no letter are significantly different from all other combinations at that knot. We applied Bonferroni’s method to all significance tests.6

Consistent with Figure 1, race and sex differences are substantively trivial at low levels of crime seriousness. As expected, each race-sex dyad at the second knot is significantly different from all other dyads. Hispanic males are less likely to go to prison than black males, but more likely to go to prison than white males. Black men fare the worst; a finding consistent with prior research (Steffensmeier et al., 1998), yet only for moderate to serious crimes. The largest difference is of course across race and gender lines. White females receive the most favorable treatment, while black males are the most disadvantaged. For example, white females are 20% more likely to be incarcerated

<table>
<thead>
<tr>
<th>Table 4</th>
<th>AMEs for offender race and sex by judge race and sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White judge</td>
</tr>
<tr>
<td><strong>Knot 1</strong></td>
<td></td>
</tr>
<tr>
<td>Black offender</td>
<td>0.0096***</td>
</tr>
<tr>
<td>Hispanic offender</td>
<td>0.0003</td>
</tr>
<tr>
<td>Male offender</td>
<td>0.0231***</td>
</tr>
<tr>
<td><strong>Knot 2</strong></td>
<td></td>
</tr>
<tr>
<td>Black offender</td>
<td>0.0542***</td>
</tr>
<tr>
<td>Hispanic offender</td>
<td>0.0370***</td>
</tr>
<tr>
<td>Male offender</td>
<td>0.0943***</td>
</tr>
<tr>
<td><strong>Knot 3</strong></td>
<td></td>
</tr>
<tr>
<td>Black offender</td>
<td>0.0715***</td>
</tr>
<tr>
<td>Hispanic offender</td>
<td>0.0588***</td>
</tr>
<tr>
<td>Male offender</td>
<td>0.1327***</td>
</tr>
</tbody>
</table>

Column reflects Wald tests for equality of coefficients.

6. Bonferroni’s adjustment to the significance tests is intended to correct p-values to not falsely reject the null hypothesis when there are a large number of significance tests concerning pairwise comparisons. The assumption underlying Bonferroni’s correction is that the critical level ought to apply to the entire set of comparisons so that the overall risk of falsely rejecting the null hypothesis is just 5%.
than black males at the third knot. The probability of imprisonment for white females at the "high" level of crime seriousness is essentially the same as that for black and Hispanic men at the "medium" level. A Wald test for the equality of coefficients (not shown) confirmed that these coefficients were not significantly different ($p < .05$).

Interaction Effects of Offender Race/Ethnicity and Sex on Incarceration Decisions for "Less Serious" Cases

We conducted supplemental analyses of the imprisonment decision where the effects of offender race and sex were permitted to vary across overall case seriousness rather than simply crime seriousness. We created a "less serious" dummy variable and included it along with cross-product terms for both race and sex. Cases identified as being less serious overall met all of the following conditions: (1) no prior record, (2) no enhancements applied and the offense was not reclassified, (3) no victim injury, (4) no additional offense(s), (5) no history of supervision violations, (6) not on supervision at the time of the arrest, (7) the offense did not involve violence or sexual activity, and (8) total point score did not mandate a prison sentence. This group comprised approximately 7% of the sample (53,767 cases). Figure 2 presents a visual representation of the average probability of imprisonment within each race/ethnicity and sex combination depending on if the case was identified as being "less serious."

Consistent with both Figure 1 and Table 3, race/ethnicity and sex differences in imprisonment are small to non-existent for less serious cases. Significant race, ethnicity, and sex based differences are, however, present among

![Figure 2](image_url)  Probability of imprisonment by case seriousness.
the more serious cases. Paralleling Table 2, females fare better than their male counterparts and whites are favored over racial and ethnic minorities. White females have the lowest probability of imprisonment while black and Hispanic males have the highest probability of imprisonment. Sex differences are still apparent in that the most disfavored females (blacks and Hispanics) fared better than white males.

Interaction of Offender Characteristics with Judge Characteristics for the Incarceration Decision

In addition, Table 4 presents two types of comparisons with respective significance tests. Coefficients with an asterisk(s) are significantly different from zero, while the column titled "Significantly Different?" reports results from the Wald tests for the equality of coefficients.

At the first knot, black offenders are approximately 1% more likely to be imprisoned than are white offenders when white judges are sentencing the case. This effect is statistically significant but of little substantive consequence. When black judges are sentencing, black offenders are almost .3% less likely to be imprisoned than whites but the effect is not significant. Moreover, these effects are not significantly different from one another. Stated differently, at the first knot, the effect of being a black offender is not significantly different across judge race and ethnicity and neither is the effect of being a Hispanic offender.

At the second and third knots, blacks and Hispanics are significantly more likely to be imprisoned than whites regardless of the judges' race/ethnicity. At all three knots, males are more likely to be imprisoned than females for both male and female judges. With the singular exception of race at the second knot, the effect of offender attributes does not significantly vary across the corresponding judicial attribute. However, this does not mean that offender attributes are inconsequential in the decision-making process. Instead, it means simply that the disparate treatment of blacks, Hispanics, and males is not isolated to a particular judicial race/ethnicity or sex.

Main Effects of Offender and Judge Characteristics on Sentence Length Decisions

Table 5 presents the results from the ordinary least squares (OLS) regression models on sentence length decisions. AMEs are reported for those variables involved in interactions. The AMEs can be thought of as a main effect or overall average effect. For example, 1 unit increases in the minimum expected sentence resulted in sentences that were, on average, .83 months longer. Since OLS is a linear model, AMEs for variables not involved in an interaction are equivalent to the reported coefficient and thus we do not report them.
On average, black offenders received sentences that were 4.76 months longer than whites, and Hispanic offenders received longer sentences of were 1.65 months longer. As with the imprisonment model, sex differences were more pronounced than racial differences with males receiving sentences that were, on average, 6.75 months longer than females. Sentence length was not influenced by the race/ethnicity or sex of the judge handling the case. Furthermore, interaction terms between offender attributes and judicial

<table>
<thead>
<tr>
<th>Table 5</th>
<th>OLS Regression of sentence length and reported AMEs for interactions</th>
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<tbody>
<tr>
<td></td>
<td>Coef.</td>
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<td>Minimum expected sentence</td>
<td>.48***</td>
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<tr>
<td>Black offender</td>
<td>−.38</td>
</tr>
<tr>
<td>Hispanic offender</td>
<td>4.72***</td>
</tr>
<tr>
<td>Black off. × min. expected sentence</td>
<td>.15***</td>
</tr>
<tr>
<td>Hispanic off. × min. expected sentence</td>
<td>−.09**</td>
</tr>
<tr>
<td>Black judge</td>
<td>−3.92</td>
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<tr>
<td>Hispanic judge</td>
<td>3.72</td>
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<tr>
<td>Black off. × black jdg.</td>
<td>−2.91</td>
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<tr>
<td>Black off. × hisp. jdg.</td>
<td>−1.61</td>
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<tr>
<td>Hosp. off. × black jdg.</td>
<td>10.11†</td>
</tr>
<tr>
<td>Hosp. off. × hisp. jdg.</td>
<td>−4.62</td>
</tr>
<tr>
<td>Male offender</td>
<td>−6.06***</td>
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<tr>
<td>Male off. × min. expected sentence</td>
<td>.31***</td>
</tr>
<tr>
<td>Male judge</td>
<td>−1.57</td>
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<tr>
<td>Male off. × male jdg.</td>
<td>2.38</td>
</tr>
<tr>
<td>Offender age</td>
<td>.22***</td>
</tr>
<tr>
<td>Murder/manslaughter</td>
<td>59.82***</td>
</tr>
<tr>
<td>Sex offense</td>
<td>5.55*</td>
</tr>
<tr>
<td>Robbery</td>
<td>39.49***</td>
</tr>
<tr>
<td>Other violent offense</td>
<td>5.66***</td>
</tr>
<tr>
<td>Burglary</td>
<td>8.13***</td>
</tr>
<tr>
<td>Other property offense</td>
<td>3.96***</td>
</tr>
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<td>Weapons offense</td>
<td>12.32***</td>
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<td>Other offense</td>
<td>.67</td>
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<td>Attempt</td>
<td>8.72***</td>
</tr>
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<td>Solicitation/conspiracy</td>
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<td>Reclassified</td>
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<td>Enhancement</td>
<td>−5.86***</td>
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<td>Conviction by trial</td>
<td>110.28***</td>
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<tr>
<td>Inverse mills ratio</td>
<td>−2.53***</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>0.44</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>2.79</td>
</tr>
</tbody>
</table>

Note. Circuit and year dummy variables are not shown but are included in all models. †$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$. 
attributes were also not statistically significant. These findings were not surprising given the results from the imprisonment model.

Visual Representations of the Effects of Offender Characteristics on Sentence Length Decisions

Figure 3 graphically presents the interaction of both offender race/ethnicity and sex with the expected minimum sentence for the sentence length model. Whites and Hispanics receive sentences that closely correspond with the expected minimum while blacks receive slightly longer sentences. Unexpectedly, only blacks receive longer sentences than whites. Contrary to expectations, but similar to the imprisonment models, differences between blacks and whites and between men and women increase with the expected minimum sentence. For males, an expected minimum sentence of 100 months corresponds closely with a predicted sentence of 100 months. This suggests that males receive the sentence that the guidelines dictate. Women, by comparison, receive discounted sentences. When the expected minimum is 100 months, females instead receive approximately 75 months. This discount corresponds to about 25 months or 2 years.

Figure 4 graphically presents the AMEs of offender race/ethnicity and sex on sentence length. This graph is a simplification of Figure 3, where the plotted

![Figure 3](image)

**Figure 3**  Predicted sentence length by offender race, ethnicity, and sex.

7. The plots were generated from the full model presented in Table 5, however the predictions were estimated separately for each racial/ethnic and sex-group to illustrate the interaction between offender race/ethnicity and minimum expected sentence on predicted sentence length, and the interaction between offender sex and minimum expected sentence on predicted sentence length. The expected minimum sentence was set at different levels for each group when predicting sentence length, and then plotted.
lines now represent the change in sentence length attributable to offender race/ethnicity and sex as the expected minimum increases. The lines reflect the change in the outcome for blacks and Hispanics (relative to whites), and males (relative to females).

According to Figure 4, blacks actually receive shorter sentences than whites at the lowest levels of the expected minimum sentence. However, this effect is quickly replaced by longer sentences relative to whites as the expected minimum increases. Recall that our measure of crime seriousness when predicting sentence length decisions is the expected minimum sentence. In regards to Hispanics, the effect is the opposite. When the expected minimum sentence is low, Hispanics actually receive longer sentences than whites but get slightly shorter sentences than whites at high levels of seriousness. The discount that Hispanics receive at high levels of seriousness is also not quite as large as the enhancement that blacks receive. For example, at the highest level of crime seriousness, Hispanics receive sentences that are about 18 months shorter than whites. Blacks at the same level of seriousness receive sentences that are 35 months longer than whites.

The effect of offender sex on sentence length is also noteworthy. However, please note that the scales are not the same on the two plots presented in Figure 4. At the highest level of crime seriousness, males receive sentences that are about 70 months longer than females. This effect is literally twice as large as that for being black. Similar to blacks, males also fare slightly better than their comparison group (i.e. females) at the lowest levels of crime seriousness.

Discussion

The current study examined two sentencing outcomes for white, black, and Hispanic felony offenders in the Florida circuit courts. We expected that the effect
of race/ethnicity and sex of offenders would depend upon the race/ethnicity and sex of presiding judges. We found few if any differences in sentences that corresponded to the race/ethnicity or sex of the judge. While our results do not definitively show that all judges sentence alike (or that judges are free of racial/ethnic or sex prejudices), the findings may mean that prejudicial attitudes do not fall along racial/ethnic or gendered lines. Females received preferential treatment from both male and female judges, where whites received preferential treatment from white, black, and Hispanic judges. It may be that judges sentence in wildly disparate or idiosyncratic ways (see Wooldredge, 2010) and some may hold racial/ethnic and gendered biases and prejudices. If these tendencies do exist, then our results indicate that they are not readily explained by the judges’ own race/ethnicity or gender.

In general, we anticipated that blacks and Hispanics would fare worse than whites and men would fare worse than women. In a broad sense, these expectations were confirmed. However, the findings were not at all consistent with the liberation hypothesis which, as traditionally articulated, posits that extra-legal effects will be concentrated in less serious crimes. In contrast to prior research, we hypothesized that racial/ethnic and gender disparities in the likelihood of imprisonment would be greatest for offenders whose crimes were considered "midrange" in seriousness. This argument was put forth primarily for reasons related to the nature and limitations of non-linear models. For sentence length decisions, we hypothesized that racial/ethnic and gender disparities would decrease with crime seriousness. Our findings were also inconsistent with these hypotheses.

Concerning imprisonment decisions, we found that there were few if any significant differences across race/ethnicity and sex at the lowest levels of crime seriousness. Any differences that were significant were substantively trivial. While there were racial, ethnic, and sex based disparities present in the midrange of crime seriousness, the disparities were most noteworthy among the most serious crimes. This is both contrary to our expectations and precisely the opposite of expectations derived from the liberation hypothesis (see also Guevara et al., 2011; Kalven, Jr. & Zeisel, 1966; Spohn & Cederblom, 1991).

Regarding sentence length, racial/ethnic and sex based disparities were present among less serious cases but these disparities actually favored blacks over whites and men over women at the lowest levels of crime seriousness. Blacks fared worse than whites as the level of crime seriousness increased. Men similarly fared much worse than women at higher levels of crime seriousness (i.e. expected minimum sentence). Findings from the sentence length model indicate that racial disparity is a consequence of blacks receiving enhanced sentences, while the sex-based disparity is a consequence of women receiving discounted sentences.

While the results are inconsistent with an original interpretation of the liberation hypothesis, the disadvantaged outcomes that blacks and males received for serious crimes is consistent with a social threat perspective of
sentencing. Trivial offenders may simply not be seen as threatening or dangerous. In fact, if racial and gendered stereotypes connect blacks and males with crime (see Chen, 2008; Chiricos et al., 2004); trivial offenses may even be seen as normative for members of these groups. The sentiment summed up colloquially as "boys will be boys" may explain why blacks and men actually receive slightly shorter sentences than whites and females for relatively trivial offenses. In contrast, serious offenders are essentially "living up to" race and sex-based stereotypical expectations of violence and internal causal attributions (Albonetti, 1991; Heider, 1958). Connecting the social threat argument with our current analysis of the liberation hypothesis, even though blacks and men may pose a more serious threat than whites and females in the stereotypical beliefs of judges, the liberation hypothesis may not be able to identify this specific type of latent bias in decision-making. We agree that it is difficult to test for the presence of unconscious or subtle bias that exists according to the liberation hypothesis. Specifically, it is difficult to uncover covert (rather than overt) racial and gender biases because there is no independently established baseline of the amount of covert bias in this specific sample. The liberation hypothesis assumes that unconscious bias exists, and researchers can test for the presence of bias in decision-making by examining the type of cases where bias is most likely to emerge. Based on this complication, future tests of the liberation hypothesis should attempt a more stringent experimental design that can independently determine a baseline measure of bias, and subsequently identify fluctuating levels of bias depending on various types of cases. For example, in the psychological literature, Devine’s (1989) experiments of automatic and controlled processes of prejudicial racial beliefs uncovered the presence of unconscious racial prejudice in decision-making behavior. Results indicated that individuals who identified as having both high and low prejudicial beliefs of Blacks encompass stereotypes that can support prejudicial responses to the disadvantage of Blacks (for more experiments, see also Cohn, Bucolo, Pride, & Sommers, 2009; Gaertner & Dovidio, 2005; Sommers & Ellsworth, 2000).

Also paralleling the current findings, it may be that decision-makers base outcomes on personal judgments concerning characteristics of offenders which correspond to offending behavior and risks of recidivism. The "patterned responses" that decision-makers use to determine outcomes are based on the attribution process and are influenced by stereotypes of the causes and crimes (Albonetti, 1991). Attributions may explain how decision-makers’ perceptions of offenders can influence sentencing decisions. Both internal and external attributions play an important role in determining an offender’s culpability and accountability, as well as the degree of social control (Rodriguez, 2013; Sanborn, 1996). Therefore, these serious offenses may be interpreted as confirmation that the offender is the proverbial “dangerous [black] man” who is beyond reformation and certain to recidivate.

Another possibility is what we describe as the “correctability hypothesis.” If judges tailor sentences to minimize recidivism, they may see a harsh
punishment as an effective means of "nipping it in the bud" for trivial offenders who are white or female. Judges may believe these offenders are most likely to be deterred if given a harsh penalty at the onset of their criminal careers. Regrettably, neither explanation adequately explains why Hispanics receive shorter sentences than whites and why this effect is largest for the most serious offenders.

It must be noted that the current study is not without limitations. First, even though numerous offender and judge attributes were considered, in any observational study there are always concerns about unobserved confounding variables. Omitted variable bias could potentially account for the effects of both offender and judicial attributes on sentencing decisions (see Paternoster & Brame, 2008). While we tried to measure as many covariates as possible and included additional and different measures compared to prior examinations of the liberation hypotheses, there may be important measures (e.g. no witness, offender testimony, offender educational attainment, immigration status, income, pre-trial detention, etc.) that were not available in the data. The inclusion of these and similar measures has the potential to alter the findings in unpredictable ways. Moreover, we cannot over-emphasize the importance of charging decisions—we do not know what these offenders actually did or even what they were initially charged with; we know only for what they were convicted. If initial charging decisions and subsequent guilty plea negotiations tend to disfavor blacks, Hispanics, and males, then two offenders who appear legally similar at sentencing may in fact not be. Thus, charging decisions and plea negotiations have the potential to conceal the effects of extra-legal attributes even when all legal and extra-legal factors are included in the analyses.

Second, while the potential for race and gender differences in decision-making were examined at two stages, we were unable to account for any disparities that occurred at earlier stages of the proceedings. Future research would benefit from examining the liberation hypothesis with additional court actors and decision-making stages. Third, while we have essentially null results for our measures of judicial attributes on sentencing decisions, we caution readers against inferring that all judges sentence similarly or in an unbiased manner. Additional research in this area is a welcome outgrowth from the limited research on the effects of judicial attributes on sentences. Finally, as introduced earlier, future research would also benefit from examining the potential of what we posit as the "correctability hypothesis" as a possible explanation for sentencing decisions across racial, ethnic, and gender groups.

8. We considered the possibility that Hispanic offenders are deported prior to sentencing as a possible explanation for the comparative favorable treatment they receive. While the federal program "Secure Communities" deports those arrested for serious crimes, this program did not go into effect until 2008 and our data extend through 2006. Moreover, the censoring of cases should not bias the regression line if such censoring is based on the values of the predictor variable (crime seriousness in this case) (see Berk, 1983).
Despite the need for more research in this area, the results continue to demonstrate the persistent influence of race and gender disparities in sentencing outcomes. This issue is particularly salient if more than one decision-making stage is examined. If future research is to consider the applicability of the liberation hypothesis on judicial decision-making, both theoretical and methodological advancements are needed to account for conflicting findings.

Disclosure Statement

No potential conflict of interest was reported by the authors.

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