

The Legal Reproduction of Racism: Racial Hierarchy Determinants of Sentencing Disparities

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Abstract

Racial bias and sentencing disparities in the judicial context have been extensively studied and widely documented in the past few decades of research, particularly in the United States. While there are studies that focus on the race relations between the judge and the defendant or the prosecutor and the defendant and their causal impact on the sentencing outcomes, little attention is paid to how the racial and hierarchical dynamics between the judge and the prosecutor influence the sentencing decisions and how that could potentially translate into disparate sentencing based on defendant race. In this study, we leverage a rich and granular database of over 50,000 cases from the New Orleans Defense Attorney (NODA) office from 1988 till 1999, to explore the dynamics of racial composition in the courtroom and the extent to which they contribute to racial disparities in sentencing outcomes. We find evidence for racial hierarchy in the courtroom to be an important determinant of differential sentencing outcomes for Black and White defendants. White judges are found to hinder and suppress the Black prosecutors, leading to generally more lenient sentencing outcomes. However, this leniency is not uniformly applied; we observe a significant racial disparity where black defendants receive sentences that are approximately 13.5 percentage points longer than those of white defendants, when tried under this group of judges and prosecutors. In contrast, Black judges with Black prosecutors exhibit the least disparity in sentencing between Black and White defendants, with the Black defendants receiving only about 3.5 percentage points longer sentences on average.

Introduction

The United States' justice system, a cornerstone of democracy, aims to administer justice impartially and equitably to all citizens. However, the human element inherent in the system introduces the possibility of biases, whether overt or latent, influencing judicial decisions. Despite the best efforts to maintain objectivity, the challenge persists, and racial disparities in sentencing have emerged as a complex reality. Extensive research has shed light on this pressing issue, exploring the extent of inequalities that persist in the U.S. courts.

Early literature on identifying the effect of race and ethnicity on sentencing outcomes were found to contain mostly mixed results as summarized by Schanzenbach (2005). However, as Abrams, Bertrand and Mullainathan (2007) note, the mixed results emerging from this body of work may stem from standard approaches and observational data - small samples and omitted variable bias. Thereafter they proceed to address these concerns by locating a dataset in which the judges are randomly assigned to defendants. Their subsequent analysis found that race matters significantly in predicting sentencing. Notably, Rehati

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and Starr (2014) performed a rigorous analysis on the racial disparities within the federal system while controlling for relevant judicial and socio-economic characteristics. Their results indicated that Black defendants faced sentences nearly 10% longer than White defendants charged with similar offenses.

The presence of racial disparities in the judicial system has contributed to exacerbation of socio-economic outcomes for the minorities in the United States. Pettit and Western (2004) examined the long-term consequences of incarceration for Black men. The study found that incarceration exacerbates existing social inequalities and hinders economic and social mobility, leading to long-lasting consequences for minority communities. Therefore understanding and addressing the issue of discrimination and bias in the criminal justice system can have far reaching outcomes for the minority communities. In this study we aim to understand whether the racial composition of the judges and the prosecutors contribute to the racial disparity in sentencing decisions for the defendants.

The effect of bias in courtroom sentencing decisions can be analyzed from two dimensions: (a) judicial discretion, where the judge might be influenced, implicitly or explicitly, resulting in disparate sentencing between defendants of different races; (b) prosecutorial discretion, which is less direct and often overlooked, but equally influential in sentencing decisions. Since the judicial reforms in the 1980s, with the introduction of sentencing guidelines for judges, their discretionary powers were limited. They could only decide sentence lengths within the range as stipulated by the guidelines, which in turn were determined based on the criminal charge registered on the defendant. Therefore, this resulted in an indirect increase in the discretionary powers of the prosecutor or the Trial Assistant Defense Attorney (TADA), who has the power to decide what the defendants would be charged with. Furthermore, they also have power to decide what reduced sentencing is offered to defendants in cases of plea bargains.

Rehavi and Starr (2014) conducted a study that revealed that prosecutors are more likely to charge Black defendants with more serious offenses than their White counterparts who committed similar offenses. Another study (Wu, 2016) conducted a meta analysis of relevant literature and concluded that the minority defendants are more likely to be charged with a crime than the White defendants.

While past studies have separately documented racial bias amongst judges and, to a lesser extent, prosecutors, there is a dearth of research investigating how the interplay of racial identities—specifically those of the defendant, the prosecutor, and the judge—contributes to racially disparate sentencing outcomes. Our study aims to unravel the dynamics of these racial identities within the courtroom and their potential compounding effect on sentencing decisions. We posit that the combination of the defendant's race, the judge's race, and the prosecutor's race plays a pivotal role in determining the length of sentences. We explore whether this mechanism could potentially be attributed to ingroup bias and if there are other forces such as racial hierarchy at work within the courtroom.

Racial hierarchy has been studied and documented in different organizational contexts (Bell et al., 2014; Restifo, 2019). Wingfield (2014) and Wingfield (2020) both highlight the role of organizational structure in perpetuating racial tasks and discrimination, with black workers often experiencing exclusion and discrimination. Zhang (2023) adds to this by demonstrating that firms with more Black employees tend to have lower scores for managerial quality, firm culture, and work-life balance, suggesting that employee sorting and workplace discrimination play a significant role in perpetuating racial inequality.

In the context of courtrooms, a Black prosecutor might face discrimination and suppression from a White judge which could reflect in sentencing decisions since their performance indicators relate to successful prosecutions and length of sentences obtained. Furthermore, this dynamic amplifies the disparity in sentencing for the defendants, wherein the White judge may be more punitive towards the Black defendants who were charged by the Black prosecutor.

Data and Methodology

The U.S. data consists of over 50,000 judicial rulings, collected from 1988-1999, by the New Orleans Parish District Attorney's Office. Its prosecuting prosecutors are responsible for enforcing state criminal laws to protect and serve the citizens of New Orleans and surrounding areas. In January 1988, the Orleans Parish District Attorney established and instituted an office-wide computerized system to collect data on every case processed through the office. The system collects data about each criminal case that enters the prosecutor's office at every step of the process, and for the purposes of this study, the race and the ethnicity of the defendant, the trial prosecutor and the judge along with the sentence received by the defendant. The other variables to be used as controls for our study include demographic attributes of the key players, case classification and date of sentencing. By controlling for these variables, we are able to robustly analyze the relationship between the race variables and their interactive effect on the sentencing outcome.

$$Y_{dij} = \beta_1(Black_d) + \beta_2(Black_p) + \beta_3(Black_j) + \beta_4*(Black_d * Black_p) + \beta_5*(Black_d * Black_j) + \beta_6*(Black_p * Black_j) + \beta_7*(Black_d * Black_p * Black_j) + Controls + \mu_i + \varepsilon_{pdjt} + c \quad (\text{eq. 1})$$

where Y_{dij} is the exponential logarithm of sentence received by the defendant d charged by prosecutor p and adjudicated by judge j ; $Black_d$ is a binary variable that takes the value of 1 for Black Defendants and 0 for White Defendants; Likewise $Black_p$ and $Black_j$ are the corresponding variables for prosecutor and judge race; $Black_d * Black_p * Black_j$ is the interaction term that captures the additional effect of the combination of Black defendant, Black Prosecutor and a Black Judge on the sentence received in the court; Likewise definitions for the other interaction terms. *Controls* refer to the demographic control variables related to the defendant, the prosecutor and the judge. c refers to the regression constant while ε_{pdjt} is the error term.

Results

Table 1 displays the results of our main specification corresponding to (eq.1) described in the preceding section. Since the assignment of cases to the prosecutors may not necessarily be random, we test for stability and robustness of the specification as we include more controls. The coefficients for the interaction terms remain largely stable and robust in columns (1) through (6) of Table 1 with the addition of controls and fixed effects.

The results show that the sentences received by the defendants are on average the shortest, relatively, when the case is heard by a White judge and tried by a Black trial prosecutor compared to the other racial

compositions of judge and prosecutor. Figure 1 clearly showcases the results seen in Table 1 column 1, across the racial groups of defendant, judge and prosecutor.

It is noteworthy that the sentences are, however, longer when there is a Black judge and Black prosecutor compared to White judge and a White prosecutor and much longer compared to White judge and Black prosecutor. This implies that the shorter sentences rendered by Black prosecutors shown in Table 1 may not be due to the Black prosecutors being inherently more lenient, but due to the White judges who appear to specifically suppress the Black prosecutors by awarding less severe sentences to the defendants.

Interestingly, it is the same racial composition of White judges and Black prosecutors that also display the largest disparity in sentencing between the White and Black defendants, with approximately 13.5% longer sentences for the Black defendants. In contrast, Black judges and Black prosecutors exhibit the least disparate sentencing wherein the Black defendants on average receive only 3.7% longer sentences than their White counterparts. It appears that the suppressive action of White judges on Black prosecutors transmits to the defendants leading to a more disparate sentencing. Furthermore, since the most disparate group is found to be White judges and Black Prosecutors, it is evident that racial hierarchy rather than ingroup bias (where one would expect White judges and White prosecutors to be the most disparate group) is the more likely mechanism contributing to sentencing disparities in the courtroom.

Figures A1 and A2 of the Appendix showcase the sentencing disparity amongst prosecutors and judges, respectively, by their race. We see that the White judges and Black prosecutors are less punitive and more disparate in general than their racial counterparts which seems to be the effect of the racial hierarchy as observed in Table 1 and Figure 1.

Conclusion

This study highlights the intricate interplay of racial dynamics among defendants, judges, and prosecutors in sentencing disparities within courtrooms. Our analysis reveals two critical insights:

First, while existing literature predominantly examines disparities based on defendant race, our findings suggest the necessity of a more structural approach. Solutions focusing solely on defendant identity may overlook the pivotal roles of judges and prosecutors in these disparities, potentially limiting the effectiveness of judicial reforms.

Second, our investigation extends beyond the traditional focus on in-group biases by examining the interaction between the racial identities of all three parties involved—defendants, prosecutors, and judges. We uncover that the dynamics of racial hierarchy significantly influence sentencing outcomes. Specifically, both prosecutors and defendants experience disparate treatment under white judges who hold a dominant position in both organizational and racial hierarchies.

This research illuminates the need for multifaceted interventions targeting not only the protection of defendants but also the empowerment of prosecutors, who face professional constraints under current systemic biases. Our study lays the groundwork for future research and policy initiatives dedicated to

reducing sentencing disparities, thereby moving closer to realizing the legal system's commitment to equitable justice.

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Table 1: Racial Composition of Judges, Prosecutors and Defendants and their effect on sentencing

	(1)	(2)	(3)	(4)	(5)	(6)
	Log Total Sentence in Days	Log Total Sentence in Days	Log Total Sentence in Days	Log Total Sentence in Days	Log Total Sentence in Days	Log Total Sentence in Days
Black Defendant	0.317** (0.112)	0.333*** (0.0649)	0.325*** (0.0643)	0.325*** (0.0675)	0.309*** (0.0629)	0.114* (0.0490)
Black TADA	-0.966*** (0.186)	-0.749*** (0.144)	-0.758*** (0.149)	-0.664*** (0.153)	-0.645*** (0.164)	-0.426* (0.180)
Black Defendant x Black TADA	0.136 (0.119)	0.313* (0.134)	0.327* (0.139)	0.306* (0.135)	0.305* (0.135)	0.301* (0.144)
Black Judge	0.257 (0.399)	0.313 (0.295)	0.325 (0.284)	0.326 (0.288)	0.265 (0.276)	0.0324 (0.196)
Black Defendant x Black Judge	-0.0656 (0.178)	-0.0565 (0.109)	-0.0471 (0.106)	-0.0468 (0.107)	-0.0286 (0.106)	0.0347 (0.0920)
Black TADA x Black Judge	0.895*** (0.248)	0.720** (0.238)	0.753** (0.234)	0.745** (0.257)	0.731** (0.259)	0.613* (0.242)
Black Defendant x Black TADA x Black Judge	-0.310 (0.203)	-0.438* (0.197)	-0.493* (0.191)	-0.464* (0.192)	-0.461* (0.193)	-0.469* (0.181)
constant	5.240*** (0.227)	3.405*** (0.740)	3.520*** (0.723)	3.435*** (0.653)	3.301*** (0.622)	4.194*** (0.386)
N	50945	50945	50934	48755	48755	48708
Adj. R-squared	0.0170	0.169	0.176	0.179	0.182	0.420

Defendant Controls	No	Yes	Yes	Yes	Yes	Yes
Sentencing Year x Sentencing Month FE	No	No	Yes	Yes	Yes	Yes
TADA Controls	No	No	No	Yes	Yes	Yes
Judge Controls	No	No	No	No	Yes	Yes
Arrest Charge FE	No	No	No	No	No	Yes

Table 1 shows the regression results corresponding to the specification in (eq. 1). The dependent variable is the log transformation of the sentence length specified in days. The defendant controls include the defendant's gender, criminal history, age, squared value of age, whether they were born out of state and whether living out of state. The TADA controls include the prosecutor gender, race, political party affiliation, tenure and squared value of tenure. Judge controls include judge gender, race and party affiliation. The standard errors are clustered at the prosecutor level. +, *, ** and *** indicate significance at the 10%, 5%, 1% and 0.01% levels, respectively.

Figure 1 : Black Prosecutors with White Judges render shorter sentences

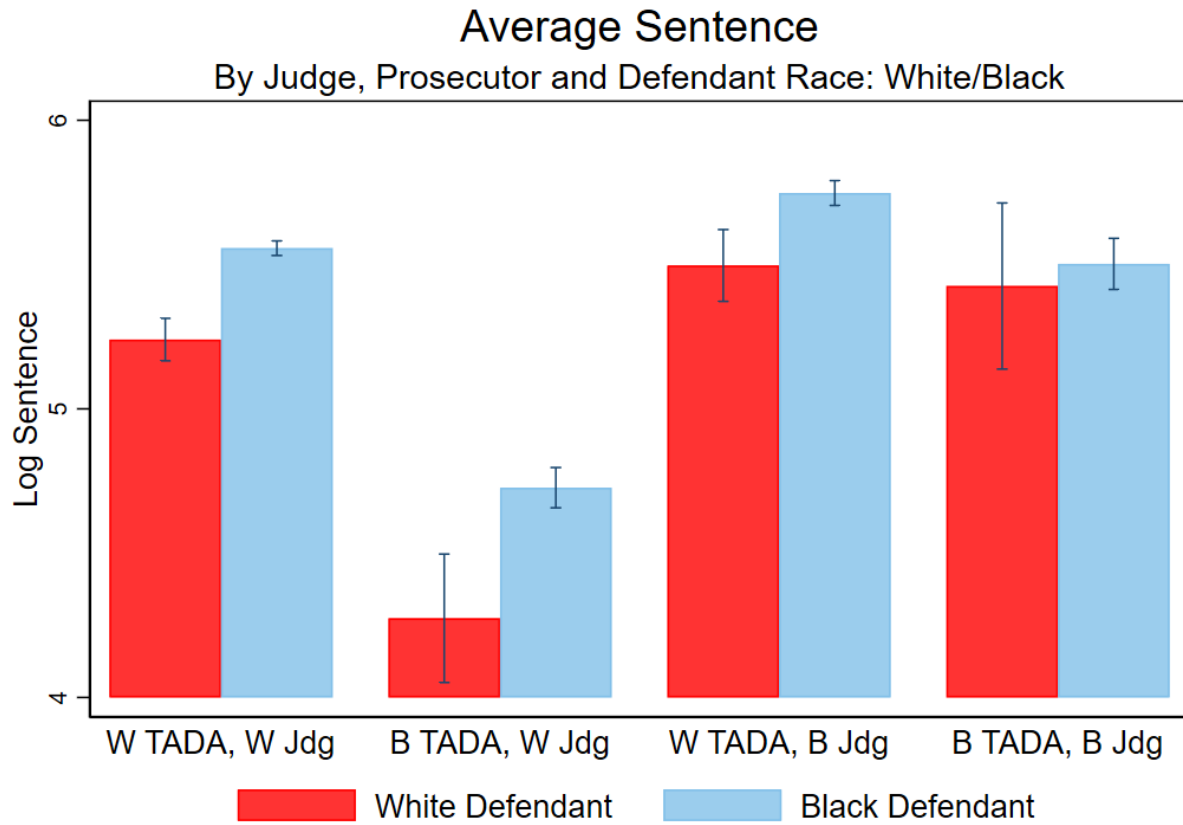


Figure 1 exhibits the results from Table 1 column (1) to demonstrate the relationship between sentencing and the racial composition (Black or White) of the defendant, prosecutor and judge in the courtroom. The y-axis denotes the log transformed sentence length in days, while the x-axis indicates the various cohorts of defendants, prosecutors and judges by their respective race.

APPENDIX:

Figure A1: Sentencing disparities by defendant and prosecutor race

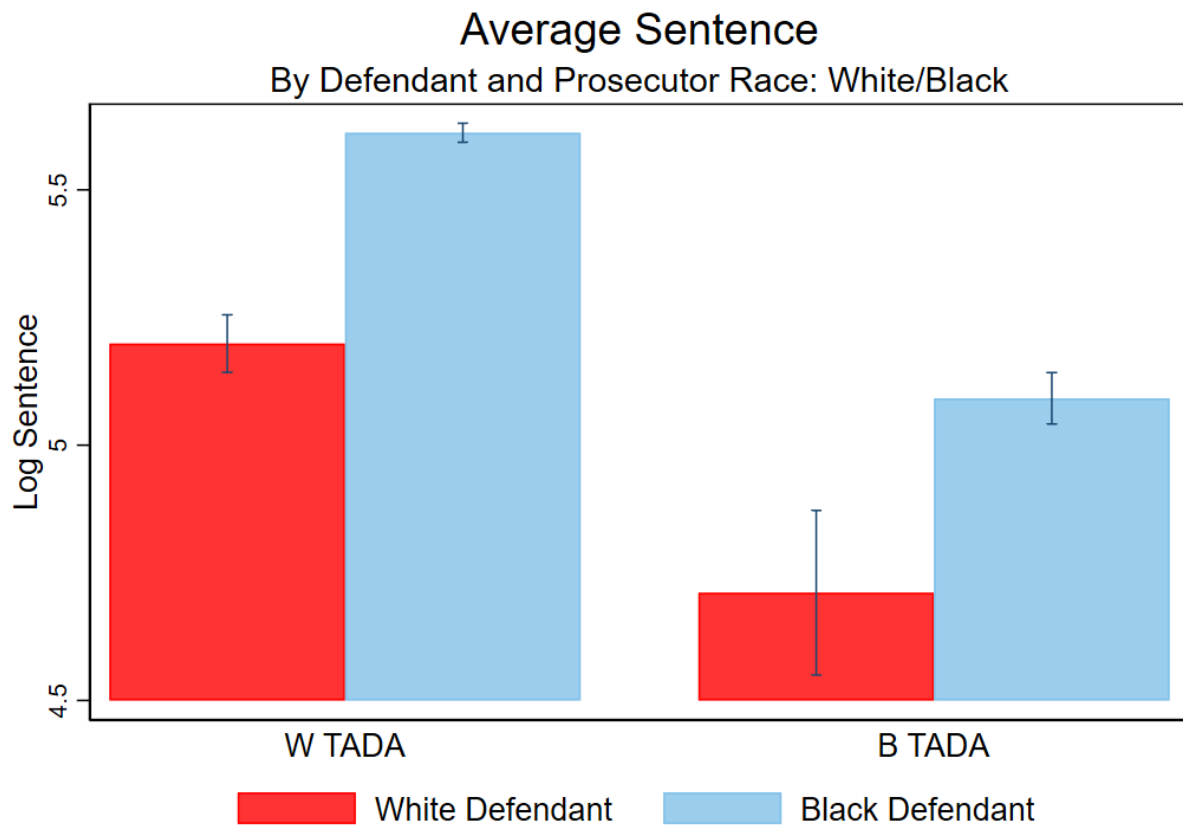


Figure A1 shows the sentencing disparities among prosecutors and defendants by their race (Black or White). The y-axis is log transformed sentence length in days. The x-axis refers to the racial group of the prosecutor and the defendant.

Figure A2: Sentencing Disparities by Judge and Defendant Race:

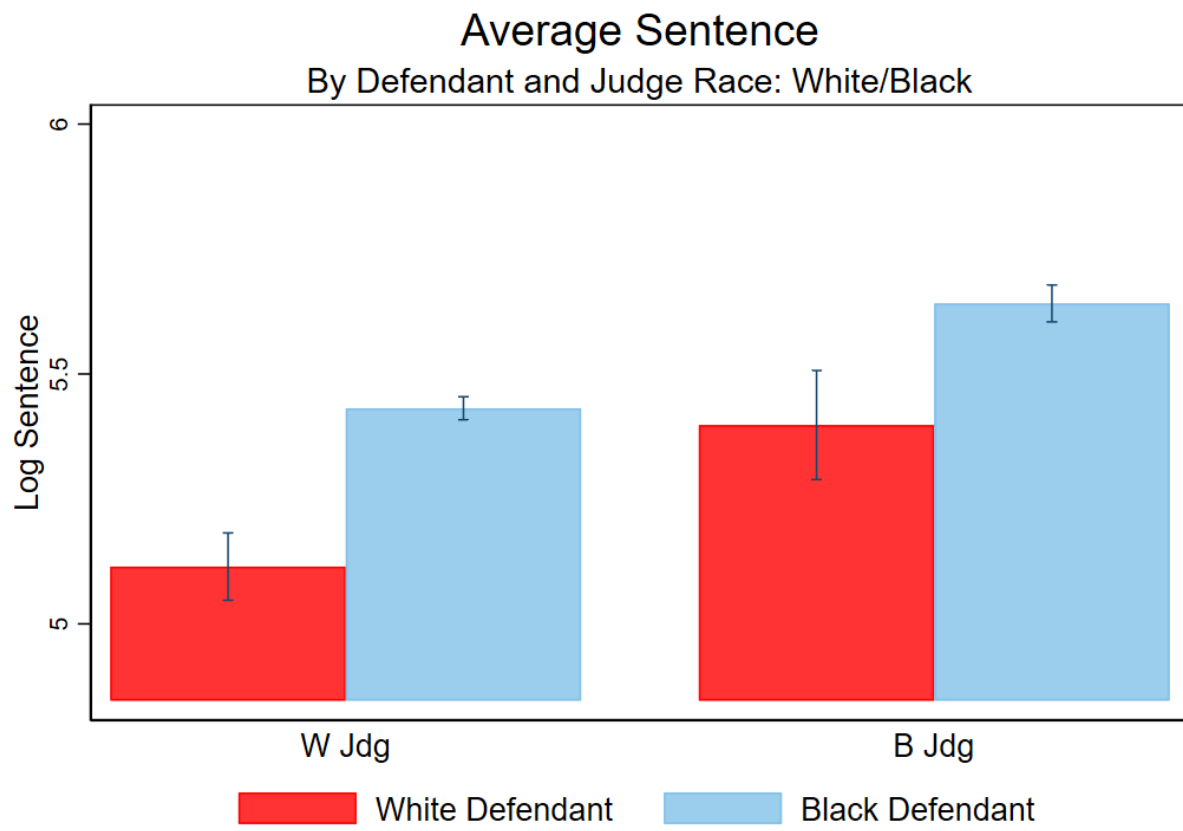


Figure A1 shows the sentencing disparities among judges and defendants by their race (Black or White). The y-axis is log transformed sentence length in days. The x-axis refers to the racial group of the judge and the defendant.