Prosecutors, Race, and the Criminal Pipeline

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This Article presents evidence that some state prosecutors use their discretion to reduce racial disparities in criminal sentences. This finding challenges the prevailing view that prosecutors compound disparities. Given prosecutors' positions as mediators in a sequential system, this Article analyzes how prosecutors respond to disparities they inherit from the past—and interprets their impacts in light of the accumulated disparities that already exist when they first open their case files. Specifically, I estimate how the sentencing penalty for prior convictions differs by defendant race using North Carolina state court records from 2010 to 2019. I find that the increase in the likelihood of a prison sentence for an additional prior conviction was 25% higher for white than Black defendants with similar arrests and criminal records. While Black and white defendants without criminal records were incarcerated at similar rates, white defendants with records were incarcerated at significantly higher rates. And the longer the record, the greater the divergence.

To understand this finding, I link an original survey of 203 prosecutors to their real-world cases. This survey-to-case linkage helps reveal how prosecutors' beliefs about past racial bias influence their decision-making. I find that the subset of prosecutors who attribute racial disparities in the criminal legal system to racial bias have lower prison rates for Black defendants with criminal records than facially similar white defendants, thereby offsetting past disparities.

In concrete terms, racial disparities in North Carolina prison rates in 2019 would have increased by 20% had the state mandated equal treatment of defendants with similar case files. These findings should lead reformers to exercise caution when considering calls to limit or eliminate prosecutorial discretion. Blinding prosecutors to defendant race—a policy that jurisdictions are increasingly implementing—may inadvertently increase disparities by neutralizing the offsetting effects of some prosecutors. While race-blind charging ensures that prosecutors do not introduce new bias, it also ensures that any past bias is passed through to current (and future) decisions.

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INTRODUCTION

In July of 2017, Cody Helms and Darius Miles were arrested on separate breaking and entering charges in Alamance County, North Carolina.[1] The two had indistinguishable criminal records: a breaking and entering conviction and two priors for felony possession of cocaine. Under the state sentencing guidelines, Cody and Darius were facing eight to ten months in state prison.

In their case files, Cody and Darius looked identical except for their race: Cody was white, and Darius was Black. However, the apparent similarity in their arrests and criminal records may have masked earlier discrimination. Historically, police, prosecutors, and judges may not have treated Black and white people equally. A larger police presence in majority-Black neighborhoods may have led to more arrests of Black people. And the post-arrest process may have disproportionately convicted Black defendants—or simply passed through earlier bias in arrests.

If the prosecutor assigned to both cases believed that Black defendants' criminal records were inflated by past bias, she may have felt that an equal punishment for Cody and Darius was unfair. Ultimately, the court records indicate that the prosecutor reduced Darius's charge to a misdemeanor but retained Cody's felony charge. Cody was sentenced to eight months in state prison, while Darius was sentenced to six months of probation.

Prosecutors can exercise their discretion to compound, pass through, or reduce racial disparities in their cases.[2] This Article introduces a new approach to understanding this prosecutorial power. Rather than attempting to estimate prosecutors' own biases, I examine how prosecutors' beliefs about past biases in the system impact their current decisions. Specifically, I analyze how prosecutors interpret and respond to racial disparities in defendants' criminal records, which reflect any actual racial differences in criminal conduct as well as any accumulated biases from past cases. To do

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1 These two cases are drawn from the North Carolina Superior Court records, but the defendants' names are altered. I separately chose first and last names based on the most common, distinctively Black and white names in the court records in 2017—i.e., the most common Black and white names that were at least 99% affiliated with each race.

2 An extensive literature recognizes prosecutors as dominant actors given their discretion over charging. *See, e.g.*, JOHN PFAFF, LOCKED IN: THE TRUE CAUSES OF MASS INCARCERATION AND HOW TO ACHIEVE REAL REFORM (2017); Rachel E. Barkow, *Institutional Design and the Policing of Prosecutors: Lessons from Administrative Law*, 61 STAN. L. REV. 869, 874–75 (2009); William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 MICH. L. REV. 505, 519–23 (2001).

this, I use 336,000 court records from North Carolina Superior Court and an original survey of 203 North Carolina prosecutors.

I find that prosecutors have increasingly used their discretion in recent years to *reduce* racial disparities by penalizing the prior convictions of white defendants more than Black defendants.[3] When facially similar white and Black defendants have no criminal record, they were equally likely to be incarcerated. However, for defendants with records, white defendants were significantly more likely to be incarcerated than facially similar Black defendants. This empirical finding runs counter to an extensive literature that has either found or assumed that prosecutors increase racial disparities.[4] This finding also poses challenges to scholars and advocates who argue that legislatures should limit prosecutorial discretion—or colorblind prosecutors—in order to reduce disparities.[5] Such proposals may inadvertently *increase* disparities by neutralizing the offsetting effects of some prosecutors, thereby cementing race gaps generated earlier in the criminal pipeline.

To understand the post-arrest system's aggregate penalty of white versus Black defendants' criminal records, I estimate how

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3 I define defendant race based on flags in the administrative court records. For details, see *infra* note 84.

4 *See* Sonja B. Starr & M. Marit Rehavi, *Mandatory Sentencing and Racial Disparity: Assessing the Role of Prosecutors and the Effects of* Booker, 123 YALE L.J. 2, 28–31 (2013) (finding that federal prosecutors were more likely charge Black defendants with mandatory minimums than facially similar white defendants from 2004 to 2009); Stuntz, *supra* note 2, at 558 (arguing that our system's commitment to prosecutorial discretion facilitates discrimination in charging and punishment); Barkow, *supra* note 2, at 883–84, 921 (arguing that checking prosecutorial discretion may curb race discrimination); James Vorenberg, *Decent Restraint of Prosecutorial Power*, 94 HARV. L. REV. 1521, 1555 (1981) (arguing that standardless prosecutorial discretion increases harsh sanctions of racial minorities). *But see* Emma Harrington & Hannah Shaffer, Brokers of Bias: Do Prosecutors Compound or Attenuate Earlier Racial Disparities? 23–27 (2022) (working paper) (on file with author) (finding that prosecutors in recent years reduce Black more than facially similar white defendants' charges to avoid mandatory prison under the North Carolina sentencing guidelines).

5 Several district attorney offices recently implemented "race-blind charging." *See infra* note 25. California recently passed a bill mandating race-blind charging in all district attorney offices by 2025. Cal. Assemb. 2778, 2021–22 Reg. Sess. (Cal. 2022). Scholars have long advocated for external limits on prosecutors. *See, e.g.*, RACHEL E. BARKOW, PRISONERS OF POLITICS: BREAKING THE CYCLE OF MASS INCARCERATION 143–66 (2019) (proposing that institutional actors with relevant expertise coordinate and review prosecutor practices); PFAFF, *supra* note 2, at 210 (arguing that binding charging and plea bargaining guidelines would ensure greater consistency in charging decisions and limit the impact of racial biases); Stephen J. Schulhofer, *Plea Bargaining as Disaster*, 101 YALE L.J. 1979, 2003–08 (1992) (advocating for the abolition of plea bargaining). *But see* Stephanos Bibas, *Prosecutorial Regulation Versus Prosecutorial Accountability*, 157 U. PA. L. REV. 959, 964–79 (2009) (arguing that external regulation of prosecutors would be ineffective).

the increase in the likelihood of a prison sentence for additional prior convictions differs for white defendants versus Black defendants. I first trace the raw relationship between criminal history and prison rates for white and Black defendants. To better isolate whether Black defendants' prior records are being discounted, I then compare white and Black defendants who appear to be similar in their case files.[6]

I find that the influence of a defendant's rap sheet on his current punishment differs significantly by defendant race. Over the past decade, the sentencing penalty associated with an additional prior conviction has been 25%, or 1.8 percentage points (pp), larger for white than facially similar Black defendants. For each additional prior conviction, Black defendants were 7.2pp more likely to receive a prison sentence, while white defendants with similar arresting charges and criminal records were 9.0pp more likely to receive a prison sentence. Returning to the cases of Cody and Darius, this indicates that if both had an additional prior conviction, Cody's likelihood of incarceration would have increased by 25% more than Darius's. Since Black Americans are four times as likely as white Americans to have felony records,[7] the smaller penalty for Black defendants' prior convictions means that the system offset disparities from the past.

This offset of prior conviction disparities became increasingly pronounced over the course of the decade.[8] If this trend were driven by increasing attention to police bias, one would expect the trend to be concentrated in the disparate treatment of prior convictions initiated by police stops. To test this theory, I compare the trend in the penalty of prior convictions for drug and weapon possession offenses—which more likely are initiated by a police officer's decision to stop and arrest a civilian—to the same trend

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6 I compare defendants who start in the same position in the state sentencing guidelines, which is jointly determined by the defendant's lead arrest offense and criminal record.

7 *See* Sarah K.S. Shannon, Christopher Uggen, Jason Schnittker, Melissa Thompson, Sara Wakefield & Michael Massoglia, *The Growth, Scope, and Spatial Distribution of People With Felony Records in the United States, 1948–2010*, 54 DEMOGRAPHY 1795, 1807 (2017). Over the past decade in North Carolina, Black defendants were over 30% more likely to have a prior felony conviction, and Black civilians were over five times as likely as white civilians to be arrested for a felony and already carry a felony conviction on their record. These statistics combine U.S. census population counts with defendant counts from the North Carolina court records. *See* IPUMS USA (2020), https://perma.cc/JV2A-K9DM.

8 *See infra* Part II.C. This trend is consistent with Harrington & Shaffer, *supra* note 4, at 4, where we find that prosecutors in North Carolina became increasingly likely to sidestep mandatory prison sentences laws for Black defendants relative to white defendants from 1995 to 2019.

for prior convictions for violent, sex, and property offenses—which more likely are initiated by a victim's or witness's report to police. I find that the trend is concentrated in shifting penalties for prior convictions likely initiated by the police, suggesting that the change in North Carolina may have stemmed from a shift in perceptions of police bias.[9] Strikingly, there was almost no change over time in the racially disparate penalty of prior convictions likely initiated by victims or witnesses.[10] Instead, the post-arrest system in North Carolina *consistently* penalized prior convictions for property, violent, and sex offenses less for Black defendants than white defendants.[11]

The post-arrest system's offset of prior conviction disparities could reflect prosecutorial discretion as well as pressures from defense attorneys, judges, or the electorate. To better understand the role of the prosecutor, I link an online, written survey of 203 North Carolina assistant district attorneys to each participants' real-world cases. I developed and fielded this survey with my collaborators[12] from May to November 2020,[13] following an in-person pilot in two additional offices in November 2019.

9 *See infra* Part II.C.1.

10 An appendix to this piece is published at Hannah Shaffer, Online Appendices, https://perma.cc/6B5A-HBNS. For more, see the point estimates in row two of Table E.10, https://perma.cc/7ESA-2AP9 (showing that the linear trend in the racially disparate penalty for prior convictions that were likely not initiated by the police (i.e., violent, property, and sex offenses) is small in magnitude and not significantly different from zero).

11 To the extent that offenders and victims are more likely to be the same race, this finding could reflect the fact that Black victims and witnesses are less willing to cooperate with the state and/or that post-arrest decision-makers are less likely to press for severe punishments when the victim is Black. The latter explanation is consistent with other studies finding that punishments tend to be more severe in cases with white victims. *See e.g.*, David C. Baldus, Charles Pulaski & George Woodworth, *Comparative Review of Death Sentences: An Empirical Study of the Georgia Experience* 74 J. CRIM. L. & CRIMINOLOGY 661, 707–10 (1983) (finding that people accused of killing white victims were four times as likely to be sentenced to death as those accused of killing Black victims).

12 I developed and administered the survey with Emma Harrington, who is currently an Assistant Professor of Economics at the University of Virginia, and economist William Murdock, currently an Associate Investment Banker at Lazard, and with the support of the Conference of District Attorneys and the sixteen participating elected district attorneys. In addition to this solo-authored paper, my collaborators and I are using these survey data in several other co-authored papers. *See infra* note 140.

13 Sixty percent of respondents took the survey in the months following the murder of George Floyd on May 25, 2020. Since many prosecutors took the survey during peak national interest in police abuse, response bias may have been particularly pronounced for these prosecutors. For a discussion of the impact of response bias on the survey analysis and the change estimated shift in survey responses around George Floyd's murder, see *infra* Part III.B.1.b and note 158.

The survey asked prosecutors about their views on the source of racial disparities in criminal outcomes. Specifically, it asked how much sentencing disparities were driven by disparate conduct (that Black defendants have more severe criminal conduct) versus racial bias (that Black defendants' conduct is perceived to be more serious than the same conduct committed by white defendants).[14] Linking each prosecutor's survey responses to her cases allowed me to test whether a prosecutor's perception of bias predicts the sentencing penalty for Black versus white defendants' prior convictions in that prosecutor's cases.[15] I also leverage the fact that cases are quasi randomly assigned to prosecutors within office crime units in North Carolina in order to estimate the relationship between prosecutors' beliefs and their disparate impacts in their cases.

These linkages reveal that the prosecutors who attribute disparities more to racial bias than to differences in criminal conduct drive the *entirety* of the post-arrest system's smaller penalty for Black defendants' priors. I hypothesize that these prosecutors likely (consciously or subconsciously) regard the priors of Black defendants as less reliable signals of underlying criminal conduct—or as providing less evidentiary weight about dangerousness or moral culpability. By contrast, prosecutors who attribute racial disparities more to disparate conduct than bias have *equal* prison rates for Black and white defendants with similar arresting charges and criminal records.[16] These prosecutors likely interpret prior records as unbiased signals that were produced by a colorblind system.[17] While the second group of prosecutors reproduces the disparities from the past, the first group offsets the accumulated disparities embedded in criminal records.

These findings run counter to the widespread view that prosecutorial discretion compounds racial disparities at sentencing.[18] Scholars have advanced a range of theories about prosecutorial dominance and unchecked bias. Some argue that the proliferation

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[14] Appendix D includes the survey question interface, details the method I use to classify prosecutors, and shows robustness to alternative classifications of prosecutors. For more, see Hannah Shaffer, Online Appendices, 69, https://perma.cc/XY4H-EPMW.

[15] For clarity, I refer to prosecutors using the pronouns "she/her" and to defendants using the pronouns "he/him."

[16] All prosecutors, regardless of their indicated beliefs, tend to imprison similar Black and white defendants without felony records at equal rates. *See infra* Part II.B.2.

[17] Part III.B.1.b discusses how response bias would change the interpretation of the results but could not have driven the impact of a prosecutor's reported beliefs on her past cases.

[18] *See supra* note 4 and accompanying text.

of overlapping criminal sanctions empowers prosecutors to charge and punish civilians more extensively and selectively.[19] Others argue that prosecutors' combined powers over investigation and adjudication invite bias and abuse of power.[20] All agree that sentencing guidelines amplify prosecutorial power,[21] and that courts and legislatures fail to safeguard defendants from discriminatory charging.[22]

In the wake of these critiques, calls to limit prosecutorial discretion have been resounding.[23] Some reforms explicitly propose blinding prosecutors to race in order to root out bias.[24] Indeed, several district attorneys have recently implemented "race-blind charging," which strips incident reports of defendant race and any information that could signal race.[25] Colorblinding prosecutors is

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19 Professor William Stuntz, among others, has advanced a theory of tacit cooperation in which legislatures delegate power to prosecutors by enacting increasingly expansive, overlapping liability rules. This menu of charging options broadens the range of conduct prosecutors can punish. *See* Stuntz, *supra* note 2, at 509 (stating that the "end point [of U.S. criminal law] is clear: criminal codes that cover everything and . . . delegate power to district attorneys' offices . . ."); William J. Stuntz, *The Uneasy Relationship Between Criminal Procedure and Criminal Justice*, 107 YALE L.J. 1, 55–59 (1997) (arguing that legislatures create new crimes to increase the reach of charging discretion).

20 *See* Barkow, *supra* note 2, at 871–73.

21 *See* Lauren O'Neill Shermer & Brian D. Johnson, *Criminal Prosecutions: Examining Prosecutorial Discretion and Charge Reductions in U.S. Federal District Courts*, 27 JUST. Q. 394, 395 (2010) (noting a consensus among scholars that "attempts to curtail judicial discretion . . . concomitantly increase prosecutorial discretion"); Kate Stith, *The Arc of the Pendulum: Judges, Prosecutors, and the Exercise of Discretion*, 117 YALE L.J. 1420, 1430 (2008); Bibas, *supra* note 5, at 971. This power imbalance led some to argue that sentencing guidelines exacerbate disparities by enabling prosecutor bias. Albert W. Alschuler, *Disparity: The Normative and Empirical Failure of the Federal Guidelines*, 58 STAN. L. REV. 85, 117 (2005) ("[T]he price of whatever success the Guidelines have achieved . . . has been the burgeoning of prosecutor-created disparities.").

22 *See supra* note 2. In theory, courts prohibit selective prosecution based on race. However, the Court effectively foreclosed these claims in *United States v. Armstrong*, 517 U.S. 456, 469 (1996) (refusing even to permit discovery of prosecutor practices absent specific "evidence that similarly situated defendants of other races could have been prosecuted, but were not").

23 Demands for external limits on prosecutors range from expert agency oversight to laws curtailing plea bargaining to more searching judicial review, to name a few. *See infra* Part IV.A.1.

24 *See, e.g.*, Shima Baughman, Sunita Sah & Christopher T. Robertson, *Blinding Prosecutors to Defendants' Race: A Policy Proposal to Reduce Unconscious Bias in the Criminal Justice System*, 1 BEHAV. SCI. & POL'Y 69, 72 (2015).

25 In September 2021, Yolo County, California in partnership with the Stanford Computational Policy Lab, adopted race-blind charging, which uses machine learning algorithms to remove race and race correlates from police reports. *See* Luke Cleary, *Yolo County DA Announces 'Race Blind Charging' Pilot Program*, ABC10 (Sept. 9, 2022), https://perma.cc/VR3U-BSX3. In April 2023, the Jackson County District Attorney, Jean Baker, announced that her office would implement race-blind charging. Morgan Mobley, *Jackson County Prosecutor Discusses Implementation of Race Blind Charging System*, KCTV5 (Apr. 25, 2023), https://www.kctv5.com/2023/04/26/jackson-county-prosecutor

also a live debate among state legislatures: In September 2022, the California legislature passed a "Race-Blind Charging" bill that mandates race-blind charging in all district attorney offices in the state by 2025.[26] Other proposals to limit prosecutors are implicitly grounded in the same paradigm of colorblindness and formal equality. Prosecutor guidelines are a case in point. For decades, scholars have argued for prosecutor guidelines to ensure more uniformity and less bias in charging decisions.[27]

This Article's findings suggest that reformers should exercise caution when considering the calls to colorblind prosecutors. In some cases, colorblinding policies may successfully reduce racial disparities by preventing prosecutors from introducing new bias. For instance, in other work that I coauthored with Professor Emma Harrington, we find that prosecutorial discretion increased disparities in the 1990s and early 2000s in North Carolina.[28] Thus, colorblinding prosecutors may have helped to reduce disparities in past decades. However, in other cases, especially in recent years, colorblinding prosecutors may have no effect or, paradoxically, increase race gaps by cementing the impacts of accumulated disparities in arrests, charges, and sentences.[29] Colorblinding could exacerbate race gaps by preventing current prosecutors

-discusses-implementation-race-blind-charging-system/. This technology was first deployed in the San Francisco District Attorney's Office. *See* Alex Chohlas-Wood, Joe Nudell, Keniel Yao, Zhiyuan (Jerry) Lin, Julian Nyarko & Sharad Goel, *Blind Justice: Algorithmically Masking Race in Charging Decisions*, AIES '21: PROCEEDINGS OF THE 2021 AAAI/ACM CONFERENCE ON AI, ETHICS, AND SOCIETY 35, 40–43 (2021) (finding no substantial effect of race-blind charging on racial disparities in charging).

26 Cal. Assemb. 2778, *supra* note 5; Lauren Keene, *Yolo-Inspired Laws Get Gov. Newsom's Signature*, DAVIS ENTER. (Oct. 6, 2022), https://perma.cc/M8M6-H4F8. Nevada considered similar legislation in 2021. *See* Nev. S. 337, 81st Sess. (Nev. 2021).

27 *See* PFAFF, *supra* note 2, at 210 (arguing for far-reaching prosecutor guidelines to promote consistency and reduce bias); Ronald F. Wright, *Sentencing Commissions as Provocateurs of Prosecutorial Self-regulation*, 105 COLUM. L. REV. 1010, 1046 (2005) (arguing that prosecutor guidelines can produce more consistent decisions within offices); Robert L. Misner, *Recasting Prosecutorial Discretion*, 86 J. CRIM. L. & CRIMINOLOGY 717, 767–70 (1996) (arguing in favor of guidelines); Vorenberg, *supra* note 4, at 1562–65 (same); *see also* Rachel E. Barkow, *Sentencing Guidelines at the Crossroads of Politics and Expertise*, 160 U. PA. L. REV. 1599, 1602 (2012) ("[Sentencing] commissions could and should do more to address the relationship between guidelines and prosecutorial power.").

28 *See* Harrington & Shaffer, *supra* note 4, at 29.

29 *See id.* at 24–25. We find that prosecutors were significantly more likely to reduce arresting charges to sidestep North Carolina's mandatory prison laws for Black defendants than white defendants from 2015 to 2019, thereby mitigating disparities in police arrests in recent years. *Id.* This coauthored paper isolates prosecutors' response to disparities in police arrests in *current* cases, as opposed to prosecutors' response to accumulated disparities from *past* cases.

from counteracting disparities inherited from police and past decision-makers.[30]

To demonstrate the potential downside of colorblinding, this Article evaluates the impacts of a hypothetical law requiring consistent sentencing of defendants with similar charges and criminal records.[31] This hypothetical law would have significantly increased disparities in prison rates relative to actual outcomes in North Carolina, particularly for Black people with prior records. Suppose that the law resulted in Black defendants being incarcerated at the same rate as current, facially similar white defendants. Had this occurred, the system would have incarcerated 696 more Black people with prior felonies in 2019, a 26% increase relative to the actual number that year.[32]

This Article's findings cannot, by themselves, tell us whether prosecutors moved prison outcomes closer to racially equal punishment of similar criminal conduct. Similarly, the findings cannot identify the degree of prosecutorial bias.[33] The results indicate that certain prosecutors reduced disparities *relative to* disparities inherited from police arrests and past cases. Therefore, the extent of prosecutors' own racial biases—and the normative implications of their decisions—depend on the extent of past bias in the system and racial differences in underlying conduct, neither of which are observable.[34] The smaller penalty for Black defendants' priors could be: (1) a welcome corrective for past bias; (2) an insufficient corrective given the extent of past racism; or (3) an unfair overcorrection to a system that treated Black and white people equally.[35] Although the results cannot directly adjudicate between

[30] Part IV.A.3 considers the generalizability of this Article's findings to other contexts.

[31] *See infra* Part IV.A.1.

[32] If, instead, white defendants were treated like facially similar Black defendants (or some intermediate path), sentences for Black defendants would not have changed (or would have increased by less).

[33] *See infra* Part IV.B.1. Prosecutors who reduce disparities may still simultaneously introduce their own biases. Such prosecutors need only offset more disparities than they introduce.

[34] In theory, disparities in arrests may accurately reflect differences in underlying behavior. Given the mounting evidence of bias in policing and later stages of the system, this interpretation may seem implausible. *See infra* notes 73, 215 and accompanying text.

[35] If prosecutors are correcting for past bias in the post-arrest system, it may seem as though recent prosecutors are "double correcting" by offsetting disparities that past prosecutors have *already* offset. It is, of course, possible that prosecutors are making dynamically inconsistent decisions. Yet this overcorrecting logic would only apply to prosecutors' continued offsets when *all* past prosecutors have *fully* offset any past biases embedded in criminal records. It is very possible that this full correction has not yet occurred. Only a subset of

these interpretations, they do show that the system reduced racial disparities in total levels of incarceration relative to a colorblind system. Despite the system's offset of racial disparities, however, Black North Carolinians are still disproportionately likely to be incarcerated: in 2019, for instance, they were still 3.8 times as likely as white North Carolinians to be sentenced to prison.[36]

To provide additional evidence about whether Black defendants' criminal records are, in fact, inflated by bias, I assess whether prior convictions are stronger predictors of rearrest for white defendants relative to Black defendants. I find that white defendants' priors are indeed stronger predictors of rearrest.[37] This suggests that Black defendants' records are weaker signals of criminal conduct, which, in turn, suggests that prosecutors who discount Black defendants' records are moving the system closer to racially equal punishment of underlying conduct.[38] While future arrest is itself a biased measure of criminal conduct, these results nevertheless provide suggestive evidence of equity and efficiency gains.[39]

This Article makes three contributions to the literature on prosecutorial discretion and racial disparities. First, as a methodological contribution, it combines qualitative survey data with the administrative records of each surveyed prosecutor's past cases. This survey-to-court-record linkage is the first of its kind and enables me to analyze how prosecutors' stated beliefs predict the outcomes in their cases.[40] Notwithstanding the calls to limit prosecutorial discretion, little is known about how prosecutors exercise

current prosecutors offset past disparities; the rest pass them through to current punishments. Also, the system has not always offset disparities. Instead, the offset has increased over time. More fundamentally, even recent prosecutors who do offset disparities may not be fully correcting for the extent of bias in policing—or fully correcting for other prosecutors' failure to offset police bias in past cases.

36 Under a colorblind regime, Black North Carolinians would have been 4.6 times as likely to receive a prison sentence. *See infra* Part IV.A.2.

37 Part IV.B.1 discusses the limitations of this analysis.

38 If Black defendants with extensive criminal records were particularly likely to encounter bias in future arrests, this would lead prior convictions to be more predictive of rearrest for Black than white defendants. In this case, the findings would be even more suggestive of equity gains.

39 Regardless of whether prosecutors correct biases *on average*, one might raise legal and normative objections to prosecutors relying on generalizations about race in individual cases. Part III.B.3.a considers whether the findings suggest that prosecutors were using defendant race as a proxy for past bias or future dangerousness when interpreting prior records.

40 Some past scholarship has featured prosecutor interviews. *See generally* Ronald F. Wright & Kay L. Levine, *Career Motivations of State Prosecutors*, 86 GEO. WASH. L. REV. 1667 (2018).

their discretion in individual cases or how prosecutors think about past disparities in their current decisions. While past work has estimated prosecutors' impacts on sentencing disparities, this Article considers how rank-and-file line prosecutors factor racial bias into their decision-making process.[41]

Second, this Article makes a conceptual contribution. By tracing the racial disparities in prosecutors' responses to prior records, it emphasizes and interprets their impacts in a sequential system, in which a prosecutor's response to past disparities may be as important as her own "internal" biases. Much of the literature has focused on isolating disparate treatment at a particular juncture of the criminal pipeline, which has had the effect of "controlling away" disparities from the past.[42] Viewing discretion in isolation can obscure the fact that treating people similarly who appear similar in their case files may, in fact, run counter to genuine equality under the law. While drilling down on discretion at a single point in the process can offer important insights, this Article takes a step back to consider the impacts of discretion given the significant disparities that already exist when prosecutors first open their case files.

Third, this Article makes a contribution to our understanding of racism in the criminal process. There is widespread agreement that racism has infected the system and that the discretion of individual decision-makers tends to compound disparities. These findings add nuance to the study of endemic racism in the criminal process by showing that some prosecutors use their discretion to offset past disparities.[43]

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[41] A number of empirical papers have examined prosecutorial bias and impacts on racial disparities. *See generally, e.g.*, Starr & Rehavi, *supra* note 4; Jeffery T. Ulmer, Megan C. Kurlychek & John H. Kramer, *Prosecutorial Discretion and the Imposition of Mandatory Minimum Sentences*, 44 J. RSCH. CRIME & DELINQ. 427 (2007); Carly Will Sloan, Racial Bias by Prosecutors: Evidence from Random Assignment (2019) (working paper).

[42] Past scholarship has considered how endogenous selection into the post-arrest system can distort estimates of discrimination. *See* Dean Knox, Will Lowe & Jonathan Mummolo, *Administrative Records Mask Racially Biased Policing*, 3 AM. POL. SCI. REV. 619, 633 (2020) (arguing that arrest data are censored by police discretion and thus can distort measures of bias post-arrest).

[43] This Article's findings also provide empirical support for longstanding critiques of colorblindness as baking in the outcomes of past racism. Professor Daria Roithmayr argues that superimposing race-neutral laws on a society that has not confronted past racism merely reproduces disparities from earlier generations. *See generally* DARIA ROITHMAYR, REPRODUCING RACISM: HOW EVERYDAY CHOICES LOCK IN WHITE ADVANTAGE (2014). While it is conceptually well understood that formally race-neutral policies may simply lock in past disparities, this effect has rarely been shown empirically.

The Article proceeds in four Parts. Part I lays the foundation for the Article's analysis. Part II presents the core results from the post-arrest system. Part III presents the results from the prosecutor survey. Part IV turns to the policy and normative implications of the findings and briefly discusses the implications for the progressive prosecutor movement.[44]

The Appendix has five Sections. Section A[45] details the construction of prosecutor case identifiers. Section B[46] presents the estimation strategy and the main analyses. Section C[47] tests cases that are randomly assigned to prosecutors within crime units, which is essential to the survey analysis. Section D[48] includes the interfaces for survey questions used in the analysis. It also explains how I used the survey to classify prosecutor beliefs and shows robustness to alternative classifications. Finally, Section E[49] includes all tables and figures not included in the main text. Tables and figures in the main text are numbered, while those in appendices are lettered and numbered (e.g., Table E.3 refers to Figure 3[50] in Appendix E).

I. BACKGROUND

This Part briefly describes the relevant institutional details. It then explains how this Article's approach to interpreting prosecutors' impacts differs from that of the existing literature.

A. Institutional Setup

Each year over ten million Americans are arrested.[51] Over one million of these arrests result in a felony conviction in state court,[52] and over two thousand state prosecutor offices across fifty

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[44] Scholars and the press primarily focus on the elections of reform-minded district attorneys. *See infra* note 247. However, it was not elected district attorneys who drove the recent offset of prior-conviction disparities; it was the line prosecutors. *See infra* Part II.C.

[45] Hannah Shaffer, Online Appendices, 58, https://perma.cc/6B5A-HBNS.

[46] Hannah Shaffer, Online Appendices, 60, https://perma.cc/4K2D-853K.

[47] Hannah Shaffer, Online Appendices, 65, https://perma.cc/T6LT-7CXN.

[48] Hannah Shaffer, Online Appendices, 69, https://perma.cc/XY4H-EPMW.

[49] Hannah Shaffer, Online Appendices, 76, https://perma.cc/MA26-JETG.

[50] Hannah Shaffer, Online Appendices, 81, https://perma.cc/LN9X-EXC5.

[51] In 2016, the most recent year of county-level arrest data, 10.5 million people were arrested. Arrest rates have declined over the past two decades. In 2006, thirteen million were arrested. U.S. DEP'T OF JUST., FBI UNIFORM CRIME REPORTING PROGRAM DATA, 2000–2016.

[52] This statistic reflects the most recent year that the National Judicial Reporting Program collected felony sentencing information from state courts. SEAN ROSENMERKEL, MATTHEW DUROSE & DONALD FAROLE, JR., BUREAU OF JUST. STATS., U.S. DEP'T OF JUST.,

states handle these cases.[53] Since each state is governed by different criminal laws and often has highly localized practices, it would be difficult, if not impossible, to offer a comprehensive account of the process for state felony cases.[54] This Section therefore outlines the trajectory of a case from arrest to sentencing for the typical defendant charged with a felony in North Carolina. This Section then discusses the sources of prosecutorial discretion and non-discretion and the significance of prior convictions at sentencing.

1. Arrest to sentencing.

State felony cases typically begin with a police officer arresting a civilian. Arrests are typically initiated by an officer's decision to stop a civilian or a witness's decision to report an incident to the police. In many states, including North Carolina, the arresting officer designates an initial charge in the incident report. After arrest, the district attorney with jurisdiction over the case decides how, if at all, to move forward with the initial charges.[55]

At this point, the case is assigned to an assistant district attorney who will serve as the prosecutor.[56] The assigned prosecutor first reviews the incident report, the defendant's criminal record, and any physical and testimonial evidence. After evaluating the case file, the prosecutor may decide to dismiss the case. In North Carolina, dismissal is not uncommon: prosecutors dismiss over a quarter of all felony cases.[57]

FELONY SENTENCES IN STATE COURTS, 2006 – STATISTICAL TABLES, 3 tbl.1.1 (2009) (available at https://perma.cc/S7Q4-4WA8).

53 STEVEN W. PERRY & DUREN BANKS, BUREAU OF JUST. STATS., U.S. DEP'T OF JUST., PROSECUTORS IN STATE COURT, 2007 – STATISTICAL TABLES, 1 tbl.1 (2011) (available at https://perma.cc/6YQM-A4DM).

54 Ronald F. Wright & Kay L. Levine, *Place Matters in Prosecution Research*, 14 OHIO ST. J. CRIM. L. 675, 677–78 (2017) (discussing how state prosecutor offices are insular, idiosyncratic institutions that vary dramatically in size, location, and culture).

55 To initiate felony charges in most states, a grand jury must find probable cause for the offense. In North Carolina, about forty thousand cases a year are indicted to the Superior Court, the system handling the state's felony cases. For context, about twice as many felonies are filed in all federal district courts. *See* ADMIN. OFF. OF THE U.S. CTS., U.S. DIST. CTS. CRIM. FED. CASELOAD STATS., tbl. D1 (2019) (documenting 90,473 felonies filed during the twelve-month period ending in March 2019) (available at https://perma.cc/DA2S-8K6J).

56 District attorney offices in North Carolina have thirty prosecutors on average, although this number ranges widely from eight (in the Chatham-Orange office) to ninety-four (in Charlotte-Mecklenburg). In larger offices, cases tend to be assigned to "units" (e.g., the sex offenses or homicide unit), while smaller offices may assign cases using a rotation system.

57 By contrast, federal prosecutors in 2019 only dismissed 5% of felony cases. *See* U.S. ATT'Y, ANNUAL STATISTICAL REPORT FISCAL YEAR 2019 5–7 tbl.2A (2019).

If the prosecutor decides to move forward with a charge, she will typically extend a plea offer to the defense.[58] During plea negotiations in North Carolina, prosecutors and defense attorneys bargain over the charge and sentence *type*—which is almost always a prison sentence or supervised probation sentence.[59] In some jurisdictions, negotiated pleas set the sentence *length* as well, but in others, the length may be left open to the sentencing judge.

Depending on the bargaining strategy and perception of the likely trial outcome, the defense may accept the initial offer or attempt to renegotiate. If bargaining breaks down, the case proceeds to trial. Although prosecutors and defense attorneys negotiate in the shadow of trial and the likely "trial penalty,"[60] only a small fraction of cases in the state or federal system actually go to trial.[61] In North Carolina, 2% of felony cases resolve via trial—the rest via guilty pleas.

If the defendant is convicted, the defendant proceeds to sentencing. While judges retain the discretion to reject plea deals, they rarely deny negotiated pleas in practice.[62] The majority of defendants convicted of a felony in state courts are sentenced to some period of confinement.[63] Over the past decade in North Carolina, 57% of defendants convicted of a felony were sentenced to a period of confinement, and about 37% to a term in state prison.

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58 Only 3.6% of defendants with felony cases waived their right to an attorney in North Carolina Superior Court from 2010 to 2019.

59 About 86% of convictions in North Carolina Superior Court resulted in either prison or supervised probation between 2010 and 2019.

60 The trial penalty refers the difference between the offered sentence in plea negotiations and the sentence if the case instead goes to trial because the defense rejects the plea.

61 In 2006, 94% of state felony convictions were resolved via a guilty plea. *See* ROSENMERKEL ET AL., *supra* note 52, at 25 tbl.4.1. In 2015, 97.1% of federal felony convictions were resolved by plea. *See* GLENN R. SCHMITT & ELIZABETH JONES, U.S. SENTENCING COMM'N, OVERVIEW OF FEDERAL CRIMINAL CASES FISCAL YEAR 2015, at 4 (2016).

62 *See* Daniel S. McConkie, *Judges as Framers of Plea Bargaining*, 26 STAN. L. & POL'Y REV. 61, 63 (2015) (noting that, at the federal level, "plea bargaining happens with little judicial involvement—between prosecutors and defense attorneys, behind closed doors."). In North Carolina, prosecutors tell me that it is common practice for judges to "rubber stamp" pleas, which suggests a limited judicial role in punishments. Yet negotiations occur in the shadow of what judges will accept, and so judges (or at least criminal litigators' perceptions of them) may have a larger impact than plea-deal rejection rates alone would suggest.

63 Among those convicted of a felony in a state court in 2006, 41% received a prison sentence and 28% a jail sentence. *See* ROSENMERKEL ET AL., *supra* note 52, at 4 tbl.1.2.

2. Prosecutorial discretion and constraints.

Given prosecutors' near absolute discretion over charging and their leverage during plea negotiations, many consider prosecutors to be the most influential actor in the post-arrest system.[64] Prosecutors are empowered to enhance, reduce, or dismiss a defendant's charge—and critically are not required to accept the initial charge chosen by the arresting officer. Discretion over the charge—and the threat of an elevated sentence at trial—gives prosecutors leverage over the final sentence.[65] Therefore, a prosecutor's assessment of the appropriate charge and punishment may often determine the realized sentence.

Despite its wide bounds, prosecutorial discretion is limited in two important respects. First, even if the prosecutor feels that a given charge and sentence are appropriate, she may be constrained by the available evidence. The initial strength of the case may be limited by witness or victim noncooperation or the physical evidence collected. Defense motions to suppress evidence as the fruit of an illegal search may further limit the prosecutor's ultimate stock of admissible evidence. Since the prosecutor must be able to prove the charge—or, at least, the prosecutor and defense attorney must believe that it could be proven at trial—insufficient evidence may force a reduction or dismissal.

Second, the combination of the prosecutor's desired charge and sentence cannot conflict with state sentencing laws. A third of all states, including North Carolina, have sentencing guidelines, which set a range of permissible sentences depending on the defendant's current offense and prior criminal record.[66] While a state's sentencing regime may seem to constrain prosecutors, this constraint is limited in practice.[67] State prosecutors can often

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[64] An extensive literature recognizes prosecutors as the Leviathan of the post-arrest system given their unchecked discretion over charging. *See* Barkow, *supra* note 2, at 874–75; Stuntz, *supra* note 2, at 519–23; PFAFF, *supra* note 2, at 127–61; Bibas, *supra* note 5, at 960–62; Angela J. Davis, *The American Prosecutor: Independence, Power, and the Threat of Tyranny*, 86 IOWA L. REV. 393, 408 (2001).

[65] In the case of mandatory minimums, the decision to bring a charge can mean the difference between a mandatory term of ten or twenty years and one far below the minimum threshold.

[66] *See* Kelly Lyn Mitchell, *State Sentencing Guidelines: A Garden Full of Variety*, 81 FED. PROB. 26, 36 (2017) (finding that, as of 2017, fourteen states have sentencing guidelines that exist on a continuum of enforceability from "advisory" to "mandatory").

[67] Scholars and practitioners overwhelmingly agree that sentencing guidelines transfer power from judges to prosecutors. *See supra* note 21 and accompanying text.

enhance or reduce a defendant's charge to adjust his presumptive sentence.[68]

In sum, evidence and statutory requirements—as well as pressures from mounting caseloads, defense attorney motions, and judicial rulings—may prevent prosecutors from realizing their desired sentence in any given case. Yet, in many cases, prosecutors have significant control over realized sentences, making it easy to understand the concern that prosecutors drive sentencing disparities.

3. Prior convictions.

A defendant's past contact with the criminal legal system immediately marks his current case and often sets a floor for his current sentence. In fact, in North Carolina, a defendant's criminal record is *as important* as his arresting charge in predicting his sentence.[69] The strong empirical relationship between past and present punishments is partly a mechanical function of criminal law: statutes often explicitly enhance punishment for defendants with long criminal histories.[70] Since Black defendants tend to have longer records than white defendants (see Figure E.1),[71] the statutory weight given to prior convictions is a stark validation of the critique of race-neutral policies as impotent to reduce racial disparities. Indeed, enhancements for prior convictions are a textbook example of facially race-neutral laws that ossify Black disadvantage.

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68 *See* Harrington & Shaffer, *supra* note 4 at 13. Under the North Carolina sentencing guidelines, prison sentences are mandatory for defendants with criminal-record "prior points" above certain thresholds. We find that prosecutors are more likely to reduce arrest charges in cases where the defendant falls just above (rather than just below) one of the mandatory prison thresholds. These charge reductions allow certain defendants to avoid the presumptive sentence under the guidelines.

69 Both explain approximately 10% of the variation in incarceration outcomes. For every additional prior felony conviction, a defendant is 8.1pp more likely to receive a prison sentence.

70 Sentencing guidelines make the statutory pass-through of prior convictions easy to see since they quickly escalate punishments as defendants' records lengthen. Mandatory minimums similarly feed the pass-through of prior convictions. Many states have "habitual felon" or "three-strikes" sentencing enhancements that are triggered when a defendant's record surpasses a threshold number of convictions. *See* JOHN CLARK, JAMES AUSTIN & D. ALAN HENRY, NAT'L INST. OF JUST., "THREE STRIKES AND YOU'RE OUT": A REVIEW OF STATE LEGISLATION 1 (1997) (finding that twenty-four states enacted three-strikes laws between 1993 and 1995); Marc Mauer, *Long-Term Sentences: Time to Reconsider the Scale of Punishment*, 87 UMKC L. REV. 113, 119 n.34 (2018) (finding twenty-eight states have repeat offender laws).

71 Hannah Shaffer, Online Appendices, 76, https://perma.cc/MA26-JETG.

While less mechanical than statutory enhancements, the discretion of judges, prosecutors, and defense attorneys also drives the strong empirical relationship between past convictions and current punishments. Decision-makers may interpret a defendant's criminal record as a signal of his propensity for criminal behavior and punish him accordingly. Indeed, defendants who frequently reenter the system may be perceived as "hardened" (or less likely to be rehabilitated) and more worthy of punishment (or less worthy of a second chance). A long rap sheet can also serve as a confirmation that the defendant belongs in his current position. A prosecutor reviewing a case may be less likely to second guess the arrest or a higher-grade charge for those with long records. As consumers of television police dramas know, the first question about a suspect is often: "Does he have any priors?"

Although prior convictions immediately color prosecutors' view of a defendant and the facts of his case, prosecutors may not interpret the same prior record equally in all cases. If a prosecutor perceives significant bias in the system, she may view the records of Black defendants as inflated and thus as weaker signals of true criminal conduct. Parts II and III take up this interpretive question by examining disparities in the penalty of prior convictions.

B. A New Approach to Interpreting Prosecutors' Impacts

This Article introduces a more holistic approach to interpreting prosecutors' impacts on disparities than that of the existing empirical literature. Rather than controlling for disparities in arrests and criminal records in an attempt to isolate new disparities introduced by prosecutors, I consider prosecutors' impacts given the accumulated, existing disparities when prosecutors first receive their cases.

1. "Controlling away" past disparities.

Many empirical studies focus on isolating "legally unwarranted" racial disparities in criminal outcomes. This exercise is complicated by the sequential nature of the process and the fact that researchers cannot observe a defendant's underlying behavior. Downstream decisions build on upstream decisions, yet researchers evaluating downstream decision-makers can only observe the upstream *outputs* and not whether these upstream decisions introduced bias.

Given these challenges, researchers aim to estimate unwarranted disparities by controlling for past decisions deemed legally

relevant. For instance, the standard method to estimate unwarranted disparities at sentencing compares outcomes for Black and white people with similar conviction offenses and prior records.[72] Intuitively, these controls allow researchers to compare defendants who are legally similar and therefore to isolate "unexplained" race gaps. Yet this approach also *ignores* any and all disparities introduced earlier in the pipeline. By controlling for past decisions, this approach also controls away any past bias.

Scholars have increasingly recognized that the standard approach to estimating unwarranted sentencing disparities is misleading because it controls away any prosecutor bias.[73] Recent research shifts the controls one juncture back in the pipeline from conviction to arrest.[74] The arrest charge is often the best available proxy for underlying behavior, and controlling for the arrest allows researchers to measure disparities introduced by the post-arrest process.[75]

However, just as comparing defendants with similar convictions eclipses any bias in prosecution, comparing defendants with similar arrests and criminal records eclipses any bias in policing and prior cases. Given the wealth of evidence of bias in the system, controlling for the arrest and prior record may control away significant unwarranted disparities.[76] Consider one stark example: despite similar rates of reported drug use, Black North Carolinians

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[72] *See, e.g.*, U.S. SENT'G COMM'N, DEMOGRAPHIC DIFFERENCES IN FEDERAL SENTENCING PRACTICES: AN UPDATE OF THE *BOOKER* REPORT'S MULTIVARIATE REGRESSION ANALYSIS 3 (2010), app. B, Table B-1 (comparing realized sentences to presumptive guidelines sentences based on the conviction offense and prior record); Jeffery T. Ulmer, Michael T. Light & John H. Kramer, *Racial Disparity in the Wake of the* Booker/Fanfan *Decision: An Alternative Analysis to the USSC's 2010 Report*, 10 CRIMINOLOGY & PUB. POL'Y 1077, 1088–90 (2011) (following similar methods); Max Schanzenbach, *Racial and Sex Disparities in Prison Sentences: The Effect of District-Level Judicial Demographics*, 34 J. LEGAL STUD. 57, 64–67 (2005) (following similar methods).

[73] *See* Starr & Rehavi, *supra* note 4, at 6; *see also* Alschuler, *supra* note 21, at 112–16; Rodney L. Engen, *Assessing Determinate and Presumptive Sentencing—Making Research Relevant*, 8 CRIMINOLOGY & PUB. POL'Y 323, 324–29 (2009).

[74] *See* Starr & Rehavi, *supra* note 4, at 7; Crystal S. Yang, *Free at Last? Judicial Discretion and Racial Disparities in Federal Sentencing*, 44 J. LEGAL STUD. 75, 77 (2015).

[75] *See* Starr & Rehavi, *supra* note 4, at 7 ("The arrest offense is an imperfect proxy for underlying criminal behavior, but we believe it is the best proxy available."); Yang, *supra* note 74, at 95 (stating arrest offenses are "plausibly exogenous measure[s] of offense severity").

[76] For evidence of bias in police stops and searches of vehicles, see, for example, Felipe Goncalves & Steven Mello, *A Few Bad Apples? Racial Bias in Policing*, 111 AM. ECON. REV. 1406, 1423–28 (2021) (finding that minorities are less likely to receive a discount on their speeding tickets than white drivers); Emma Pierson, Camelia Simoiu, Jan Overgoor, Sam Corbett-Davies, Daniel Jenson, Amy Shoemaker, Vignesh Ramachandran, Phoebe

are nine times as likely to be arrested for drug possession as white North Carolinians.[77] There is also evidence that arrest records across a broad swath of crime types are racially biased measures of criminal behavior.[78]

Like other researchers, I have no objective measure of criminal behavior to benchmark the degree of bias in arrest, charges, or sentences. Unlike others, however, I do not control for past race gaps in order to isolate the average disparate impact of the post-arrest process. Instead, I aim to understand prosecutors' impacts in light of the accretion of disparities from past cases.

2. Isolating new bias versus the response to past disparities.

The literature's focus on isolating disparities at charging or sentencing naturally highlights the potential for individual prosecutors or judges to compound disparities with their own biases. Yet this focus on individual bias fails to consider how prosecutors

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Barghouty, Cheryl Phillips, Ravi Shroff & Sharad Goel, *A Large-Scale Analysis of Racial Disparities in Police Stops Across the United States*, 4 NATURE HUM. BEHAV. 736, 737–39 (2020) (finding evidence of racial bias in police stops using a "veil of darkness test" and a standard "outcomes test" which revealed that the bar for searching Black drivers was lower than that for searching white drivers); William C. Horrace & Shawn M. Rohlin, *How Dark Is Dark? Bright Lights, Big City, Racial Profiling*, 98 REV. ECON. & STAT. 226, 230–31 (2016) (finding racial disparities in traffic stops are higher during the day when the driver's race is visible); Nejat Anbarci & Jungmin Lee, *Detecting Racial Bias in Speed Discounting: Evidence from Speeding Tickets in Boston*, 38 INT'L REV. L. & ECON. 11, 18–22 (2014); Shamena Anwar & Hanming Fang, *An Alternative Test of Racial Prejudice in Motor Vehicle Searches: Theory and Evidence*, 96 AM. ECON. REV. 127, 141–47 (2006); John Knowles, Nicola Persico & Petra Todd, *Racial Bias in Motor Vehicle Searches: Theory and Evidence*, 109 J. POL. ECON. 203, 215–27 (2001). For evidence of bias in police use of force, see Mark Hoekstra & CarlyWill Sloan, *Does Race Matter for Police Use of Force? Evidence from 911 Calls*, 112 AM. ECON. REV. 827, 843–56 (2022). For evidence of bias in police stop and frisks, see, for example, U.S. DEP'T OF JUST., INVESTIGATION OF THE FERGUSON POLICE DEPARTMENT 16, 65 (2015); Andrew Gelman, Jeffrey Fagan & Alex Kiss, *An Analysis of the New York City Police Department's "Stop-and-Frisk" Policy in the Context of Claims of Racial Bias*, 102 J. AM. STAT. ASS'N 813, 818–21 (2012).

[77] SUBSTANCE ABUSE AND MENTAL HEALTH SERVS. ADMIN., NATIONAL SURVEY ON DRUG USE AND HEALTH 2 (2021) (available at https://perma.cc/2CQT-3ZEN) (finding similar rates of illicit drug use and substance use disorder for Black and white Americans). The fact that Black North Carolinians are nine times as likely to be arrested follows from the fact that 71% of North Carolinians arrested for felony drug possession are Black, but just 22% of the state population is Black.

[78] *See generally* Ben Grunwald, Racial Bias in Criminal Records (2022) (working paper). To estimate racial bias in arrests, Grunwald used official arrest and self-reported crime data from the Pathways to Desistance (The Pathways to Desistance study is a multisite, longitudinal study of serious adolescent offenders.).

or judges think about upstream disparities in their decision-making process. Since a police officer's decision today becomes the input to a prosecutor's decision tomorrow, a prosecutor's perception of bias in these inputs may lead her to offset past disparities. Therefore, when analyzing prosecutors' impacts on systemic disparities, prosecutors' beliefs about bias in the system may be as important as their own internal biases.

3. Estimating the response to past disparities with prior convictions.

To begin to expose how prosecutors interpret and respond to disparities they inherit from the past, I evaluate how prosecutors punish the prior convictions of white defendants versus Black defendants. I focus on prior convictions because of the significant disparities in criminal records (see Figure E.1)[79] and because defendants with longer criminal records have more contact with the system and so more exposure to any of its potential biases.[80]

To see why this analysis helps to reveal how prosecutors (consciously or subconsciously) interpret past disparities, consider three hypothetical prosecutors. The first prosecutor trusts that prior convictions reflect colorblind decision-making or simply accepts a defendant's rap sheet without question. This prosecutor interprets the prior convictions of Black and white defendants as equally meaningful signals of underlying behavior. One would expect this prosecutor to ratchet up punishment equally for defendants with additional priors.[81] The second prosecutor believes that Black defendants with long records are more likely to commit serious crimes than facially similar white defendants and thus ratchets up punishment more for Black than white defendants with additional priors. Finally, the third prosecutor perceives significant discrimination in the system—or has subconsciously internalized the idea that Black defendants were more likely to be treated unfairly—and so views Black defendants' priors as inflated by past bias and thus weaker signals of criminal conduct. One would expect this final prosecutor to ratchet up punishment more for white defendants as opposed to Black defendants with additional priors, thereby *offsetting* disparities from the past.

79 Hannah Shaffer, Online Appendices, 76, https://perma.cc/MA26-JETG.

80 Black adult males are four times as likely as the rest of the population to have a felony record. *See* Shannon et al., *supra* note 7, at 1807.

81 Of course, this type of prosecutor may also add her own bias to the equation and ratchet up punishment more for Black defendants with longer priors.

II. THE POST-ARREST SYSTEM'S OFFSET OF DISPARITIES

This Part presents the principal empirical findings in North Carolina Superior Court between 2010 and 2019. Section A describes the data and briefly explains the empirical design. Appendices B and C detail the more technical aspects of the empirical design. Section B presents the aggregate results and Section C the trend over the past decade.

A. Data and Empirical Design

1. Court records.

My analyses use records from North Carolina Superior Court from 1995 to 2019. The Superior Court data make it possible to reconstruct the timeline of each case.[82] First, they record the arresting charge. Second, the court records include identifiers for the assigned prosecutor and the defendant's conviction charge, which reveal whether the prosecutor reduced, enhanced, or dismissed the defendant's initial charge.[83] Finally, the records indicate whether the defendant was sentenced to prison and the length of the imposed sentence, as well as defendant demographic information such as race, age, and gender.[84]

Critical for the paper's analyses, records of conviction charges allow me to reconstruct (albeit imperfectly) the defendant's criminal history as it would appear to prosecutors in the current case.

[82] There were several data cleaning steps that were necessary to transform the raw court records into meaningful units of analysis. Most importantly, defendants' offenses were grouped into "cases" adjudicated jointly by a single prosecutor using the timing of filings. *See* Hannah Shaffer, Online Appendices, 58, https://perma.cc/6B5A-HBNS.

[83] The court records allow one to infer the results of plea bargains even though they do not directly record the prosecutors' plea offers or defense attorneys' acceptances or rejections. The court records also include the county and district attorney office handling each case, which allows me to link in data on local politics and population density.

[84] I use the court records' flags for defendant race to categorize defendants in all of the paper's analyses. Black defendants are defined as those who are coded as Black in the court records; white defendants are defined as those who are coded as Caucasian, Asian American, and Hispanic. I do not separately analyze the treatment of Asian and Hispanic defendants because defendants are coded as Asian in fewer than .2% of cases and as Hispanic in fewer than 3% of cases. Since Hispanic defendants are often mis-coded as Black or white, I re-code the Hispanic indicator based on the percent of people who are Hispanic in the U.S. census and share the defendant's last name. With this re-coding, Hispanic defendants are still under-represented relative to their population share in North Carolina and account for only about 4% of Superior Court cases. Because of the small share of Hispanic defendants, the results are almost identical after dropping Hispanic defendants, and I cannot reject that Hispanic defendants are incarcerated at the same rate as facially similar white defendants or at the same rate as facially similar Black defendants.

For instance, for defendants in 2019, I can observe all prior felony convictions in the twenty-five years leading up to the current case. More generally, I can construct the length, severity, and specific composition of each defendant's felony record back to 1995 (the first year of my data).[85] To match the cases of unique defendants over time, consistent defendant identifiers were generated using defendant name and date of birth.

Because my analysis centers on defendants' prior records, I only include the last ten years of the court records (2010–2019) in the analysis sample. While I use all twenty-five years of the records to construct prior records, I exclude cases from the first fifteen years (1995–2009) from the analysis for two reasons. First, I am unable to observe a defendant's criminal history if he is charged too early in the period. For instance, if a defendant is charged in 1997, I can only see his prior convictions in the two years leading up to his current case.[86] Second, before 2010, the court records did not include cases that were dismissed. Therefore, analyzing cases before 2010 would offer an incomplete (and likely selected) picture of racial disparities in sentencing outcomes.[87] Finally, my analysis is restricted to new felony cases in Superior Court with arresting charges that initially qualify for the sentencing guidelines and do not involve murder, rape, or kidnapping.[88] I exclude murder, rape, and kidnapping cases (6.1% of felony filings) because prosecutors tell me that the information contained in the court records is far less determinative of the punishment for these serious, more idiosyncratic offenses than for

[85] I can see prior misdemeanor convictions if they are reduced from felonies and thus adjudicated in Superior Court. The vast majority of misdemeanors are handled in District Court and so are missing from the records. I cannot observe felony convictions from other states.

[86] In some cases, the official prior points are recorded. I do not use them because they are only recorded for defendants convicted of felonies and thus are omitted for the 43% of cases reduced to misdemeanors or dismissed. For cases with recorded prior points, the correlation between the official prior points and the prior points imputed from the court data is 0.7.

[87] Since comparing racial disparities pre- and post-2010 would be like comparing apples to oranges, including cases before 2010 would yield a misleading estimate of the trend in disparities.

[88] I exclude cases with lead charges of misdemeanors (8.4% of filings) and cases that are not sentencing under the felony guidelines, which includes drug trafficking (6.9% of felony filings) and DUI (0.7% of felony filings). I also exclude drug trafficking because federal prosecutors tend to handle these cases, so the estimated prior records of defendants charged with drug trafficking would be biased down. Finally, probation violations are excluded since they often reflect technical offenses rather than new felony offenses (41% of court filings).

more common, less serious offenses—and because these more serious, idiosyncratic cases are typically assigned to specialized prosecutors. Tables E.6[89] and E.16[90] show that the aggregate results and survey results are robust to including these cases.

Table E.1[91] presents summary statistics for (i) the full sample of felony cases filed in Superior Court and (ii) the sample used in my analyses. In the analysis sample, there are 336,141 cases handled by 1,602 prosecutors across thirty-nine offices. Just over a fifth of defendants are sentenced to a term of incarceration six months or longer, which indicates that the sentence is served in a state prison rather than a county jail.[92] About 41% of defendants already have a felony conviction on their record, and the average defendant has one low-level felony. As is almost always the case in the U.S. system, Black defendants are over-represented: only 20% of the state population is Black, while half of all defendants are Black.

2. Empirical specification.

To summarize racial disparities in the penalty for prior convictions, I estimate the average linear relationship between criminal record "prior points" and prison rates for white defendants relative to Black defendants. Prior points are a summary measure of a defendant's prior convictions, weighted by their severity according to a statutory formula.[93] In Appendix B, I present the specifications that estimate racial disparities in prison rates in absolute levels for defendants without felony records and in four quantiles of the prior-point distribution—Q1 Record (two points); Q2 Record (three to four points); Q3 Record (five to eight points); Q4 Record (nine points or more).

To limit comparisons to those with similar case files, I compare defendants who start in the same position in the state sentencing guidelines who have similar arresting charges and criminal records. Letting p_i denote defendant i's prior points, g_i the offense class of the arrest charge in the state sentencing guidelines, and

89 Hannah Shaffer, Online Appendices, 86, https://perma.cc/B8BW-CH2J.

90 Hannah Shaffer, Online Appendices, 101, https://perma.cc/5GF9-X4L9.

91 Hannah Shaffer, Online Appendices, 77, https://perma.cc/REZ4-9LVX.

92 For this reason, I define prison as an incarceration sentence of at least six months.

93 A conviction for a misdemeanor adds one prior point; a low-level felony adds two prior points; a midlevel felony adds four prior points; and a high-level felony adds six to ten prior points. *See* N.C. GEN. STAT. § 15A-1340.14.

t_i the year the case was disposed, I use the following estimating equation:

$$\text{Prison}_i = \beta_\Delta \mathbb{1}[\text{white}_i]p_i + \beta_0 \mathbb{1}[\text{white}_i] + \mu_{p(i),g(i),t(i)} + \epsilon_i \qquad (1)$$

The coefficient β_0 reflects the percentage point difference in prison for white defendants relative to Black defendants without criminal records who have similar arrests and prior points. The coefficient β_Δ reflects the percentage point difference in the increase in prison for additional prior points for white defendants relative to Black defendants with similar arrests and prior points.[94] To ease interpretation, I rescale prior points so that the estimated coefficient reflects the increase in the likelihood of prison for each additional low-level felony conviction, the equivalent of two prior points.

To further limit comparisons to defendants with similar case files in the same district attorney office and crime unit, I interact the sentencing guideline controls in Equation 1 with the district attorney office handling the case, j_i, and the type of crime of the arrest charge (e.g., drug possession), c_i:

$$\text{Prison}_i = \tau_\Delta \mathbb{1}[\text{white}_i]p_i + \tau_0 \mathbb{1}[\text{white}_i] + \mu_{p(i),g(i),j(i),c(i),t(i)} + \nu_i \qquad (2)$$

B. Aggregate Results

Defendants with more extensive criminal records are significantly more likely to be sentenced to a term in state prison than those with less extensive records. For each additional prior felony conviction, a defendant in North Carolina Superior Court is 8.1pp more likely to be sentenced to prison.

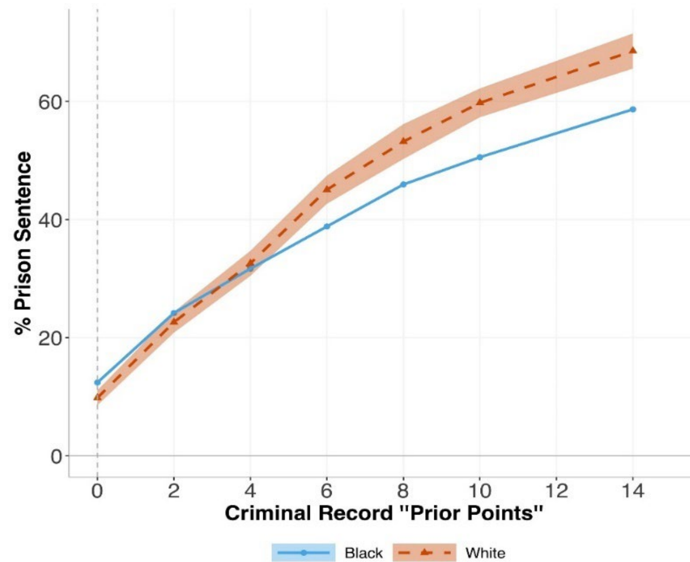
The average pass-through of past convictions to current punishments masks a striking difference between white and Black defendants. Over the past decade, the relationship between a defendant's rap sheet and current punishment has been significantly stronger for white defendants than Black defendants. And among defendants with extensive records, the absolute level of prison rates has been significantly higher for white defendants than Black defendants.

Figure 1 illustrates the aggregate racial disparity in the priors-prison relationship from 2010 to 2019, without controls for

[94] The estimates for Black defendants are absorbed by the fixed effects for prior conviction points.

defendant or case characteristics. It shows the raw relationship between a defendant's number of criminal record prior points and his probability of being sentenced to a term in state prison—in blue circles for Black defendants and orange triangles for white defendants.[95] While prison rates for defendants with short records or no record are slightly lower among white than Black defendants, this prison disparity flips and then widens among defendants with longer records. Indeed, the average increase in prison rates for each additional low-level felony conviction is 31.8% (or 2.3pp) larger for white defendants than Black defendants.[96]

FIGURE 1: PRIOR CONVICTIONS AND PRISON SENTENCING DISPARITIES (2010–2019)



This figure shows the relationship between a defendant's criminal record "prior points" and his likelihood of receiving a prison sentence, without controlling for case or defendant characteristics. The horizontal axis is prior points, meaning the sum of a defendant's past convictions weighted by their severity. *See* N.C. GEN. STAT. § 15A-1340.14. The vertical axis is the share of defendants who receive a prison sentence. The points on the figure reflect every two prior points

[95] I define a prison sentence as incarceration of at least six months since sentences at least six months are served in state prison rather than county jail. Together with the conviction charge, prior points determine the presumptive punishment under the state sentencing guidelines

[96] 95% CI = [1.98pp, 2.60pp]. *See* Table 1 (rows one and two of column one ($\frac{2.29}{7.20}$= 31.81%)). According to the formula for prior points, a low-level felony adds two points. *See* N.C. GEN. STAT. § 15A-1340.14.

from zero–eleven points. The final point includes those with at least twelve points (the 97th percentile). The orange band reflects the 95% confidence intervals for white relative to Black prison rates. Standard errors are clustered by elected district attorney.

The raw pattern suggests that the system is discounting the weight on Black defendants' priors relative to white defendants' priors. However, the raw relationship may obscure the impacts of current case characteristics. Imagine, for instance, that Black defendants with long records are more likely to be arrested on minor charges than are white defendants with long records. This difference in arrest severity would generate the same patterns observed in Figure 1. However, in this situation, the disparate relationship between prior points and likelihood of receiving a prison sentence (priors-prison relationship) may capture racial differences in the current arrest offense—rather than a disparate penalty for past convictions. While the *effect* on prison disparities would be the same, the *interpretation* would be different.

To better isolate the post-arrest system's penalty of prior convictions, I consider priors-prison relationship for defendants who appear the same in their case files at the time they enter the system—that is, those who start in the same position in the state sentencing guidelines given their arrest charge and criminal record.[97] I compare defendants with similar arrest charges as opposed to similar indictment charges because I aim to capture Superior Court prosecutors' responses to early decision-makers. Conditioning on the indictment charge would also capture Superior Court prosecutors' responses to their own decisions since they often have some control over the indictment charge.[98]

Figure 2 and column two of Table 1 restrict comparisons to defendants who start in the same position under the sentencing guidelines. These controls do not substantially change the estimated disparity in the priors-prison relationship. For each additional low-level felony conviction, the increased likelihood of being sentenced to prison is 25% (or 1.8pp) greater for white defendants

[97] I compare defendants with arrest charges in the same felony offense class under the state sentencing guidelines who have similar criminal record prior points. *See* Hannah Shaffer, Online Appendices, 61, https://perma.cc/QC8B-QNHR.

[98] Since there is relatively little movement in charges between District Court and Superior Court in North Carolina—and, specifically, there are not significant racial disparities in reductions or enhancements—the results are almost identical when using controls for the indictment charge.

than for facially similar Black defendants.[99] Adding further controls for the specific composition of a defendant's criminal history—specifically, fully interacted fixed effects for each offense class of the state sentencing guidelines (# Offense Class E prior convictions x # Offense Class F prior convictions x . . .)[100] and fully interacted fixed effects for twelve offense types (# Larceny prior convictions x # Forgery prior convictions x . . .)—also does not substantially change the estimated disparity.[101] While facially similar white and Black defendants who do not have felony records are incarcerated at similar rates, white defendants with felony records are incarcerated at significantly higher rates than facially similar Black defendants.[102]

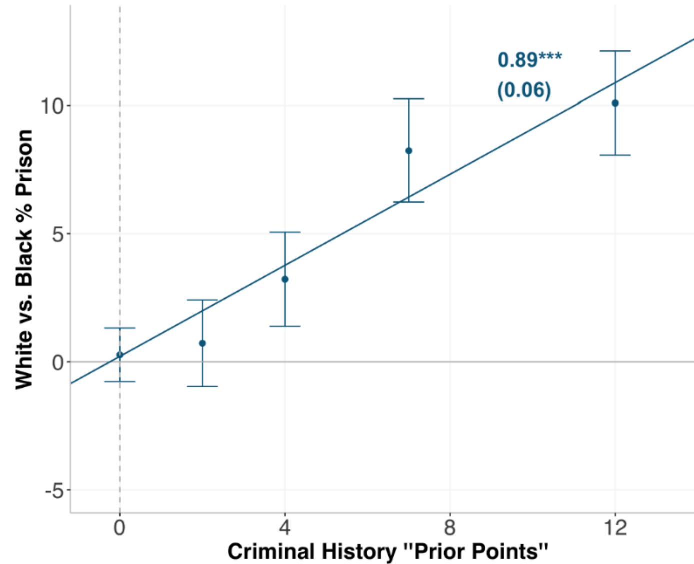
99 For each additional low-level felony conviction, Black defendants are 7.20pp more likely to receive a prison sentence. *See* Table 1 column one, row two. The increase for white defendants is 1.78pp higher. 95% CI = [1.53pp, 2.04pp]. *See* Table 1 column two, row one. I use the specification in column one to scale the racial difference in the penalty for prior convictions (rather than the column two specification) because the estimated linear increase in prison rates for Black defendants is absorbed by the controls for prior points in the column two specification.

100 This ensures that a separate fixed effect is estimated for each possible combination of prior convictions—for instance, for defendants with one prior conviction in offense class E and two in offense class G, defendants with two prior convictions in offense class E, two in offense class G, and one in offense class H, etc.

101 *See* Table 1 column four. The twelve broad offense types are: Any Assault, Arson/Discharge Weapon, Breaking and Entering, Court/Prison Offenses, Drug Possession, Drug Sales/Possession with Intent, Forgery, Flee/Elude Law Enforcement, Sex Offenses, Larceny, Weapon Possession, and Robbery/Burglary. Controlling for prior-record composition eliminates the impact of racial differences in the number, severity, and crime type of prior convictions among defendants with the same priors point score. This could have attenuated the response to Black defendants' prior if, for instance, prosecutors weighed two low-level prior convictions (worth four points total) less than one mid-level prior conviction (also worth four points) and Black defendants with longer records tended to have relatively more prior convictions that are low-level.

102 *See infra* Part II.C. White defendants without records are not significantly 0.27pp (95% CI = [0.77, 1.31]) more likely to be incarcerated than facially similar Black defendants. *See* Table E.2 column two, row five.

FIGURE 2: PRIORS AND PRISON DISPARITIES FOR DEFENDANTS WITH SIMILAR CASE FILES



This figure shows the percentage point difference in prison rates for white defendants relative to Black defendants with similar arrests and criminal records who start in the same position under the state sentencing guidelines. The left-most point reflects defendants without felony records, and the other four points reflect quartiles of prior points for defendants with records. The five points are jointly estimated using equation 5. *See* Hannah Shaffer, Online Appendices, 60, https://perma.cc/4K2D-853K. The error bars reflect the 95% confidence interval for white relative to Black prison rates. The blue line and annotated coefficient reflect the average change in disparities for each additional prior point. Standard errors are clustered by elected district attorney. ***Significant at the 1% level. **5%. *10%.

*** Indicates significant at the 1% level.

** Indicates significant at the 5% level.

* Indicates significant at the 10% level.

The higher prison rate for white defendants becomes increasingly pronounced as defendants' records become more extensive: white defendants with records in the second quartile of prior points—who average 1.4 prior felonies—are 10.6% (or 3.2pp) more likely to be incarcerated than facially similar Black defendants, while white defendants in the highest quartile of prior points—who average 4.0 prior felonies—are 18.7% (or 10.1pp) more likely to be incarcerated.[103]

[103] Table E.2 column two presents these estimates. White defendants in the second quartile of the felony record distribution are 3.22pp (95% CI = [1.38pp, 5.06pp]) more likely to receive a prison sentence than facially similar Black defendants, and white defendants

TABLE 1: RELATIONSHIP BETWEEN PRIOR CONVICTIONS AND RACIAL DISPARITIES IN PRISON RATES (2010–2019)

	Prison Sentence					
	(1)	(2)	(3)	(4)	(5)	(6)
Prior Points x White	2.29***	1.78***	1.61***	1.58***	1.33***	1.41***
	(0.16)	(0.13)	(0.15)	(0.16)	(0.19)	(0.19)
Prior Points	7.20***					
	(0.17)					
White	−3.23***	0.21	−1.05***		−1.14***	−1.08***
	(0.69)	(0.56)	(0.24)		(0.25)	(0.23)
Intercept	13.72***					
	(0.99)					
SG FE (Offense Class x Priors x Year)		✓				
Office Unit x SG FE			✓	✓	✓	✓
Pros. X Race + Pros. X Priors FE				✓		
Priors Composition FE					✓	✓
X_i + Arrest Charge FE						✓
Dependent Mean	21.07	21.07	21.07	21.17	21.07	21.07
# Cases	336,144	336,144	336,144	332,834	336,144	336,144

Notes: This table analyzes the relationship between prior convictions and prison for white defendants relative to Black defendants. The first column considers the raw relationship between prior points and prison. The estimates on prior points reflect the increase in prison for each additional low-level prior felony, the equivalent of two prior points. The second column compares defendants who start in the same position in the sentencing guidelines using Equation 1. The third column estimates disparities within office crime-units using Equation 2. The fourth column looks *within* prosecutor by adding controls for the aggregate racial disparity in each prosecutor's prison rates and each prosecutor's average penalty for prior convictions. The fifth column adds fixed effects for the specific composition of prior felonies in each offense class of the sentencing guidelines and within twelve offense types. The final column further controls for the specific arrest charge and defendant gender and age, X_i. Standard errors are clustered by elected district attorney. ***Significant at the 1% level; **5%; *10%.

1. Heterogeneity across county politics and population density.

Aggregate disparities in the priors-prison relationship could mask significant variation across North Carolina. As shown in Appendix Table E.7,[104] the discounted weight on Black defendants' prior convictions is similar in liberal and conservative counties (see row one of columns one and two) and in more urban and rural counties (see row one of columns three and four).[105]

in the top quartile are 10.09pp (95% CI = [8.07pp, 12.11pp]) more likely. Hannah Shaffer, Online Appendices, 78, https://perma.cc/H85S-HA7C.

104 Hannah Shaffer, Online Appendices, 87, https://perma.cc/23YY-Y4VB.

105 In more liberal counties relative to more conservative counties, Black defendants are less likely to be incarcerated than facially similar white defendants in aggregate, despite their being no significant difference in the racially disparate penalty of prior convictions. Counties with a one standard deviation higher liberal vote share in presidential

2. Prison disparities among defendants without records.

White and Black defendants without felony records with similar case files are incarcerated at similar rates (see the leftmost point in Figure 2). If the system is counteracting disparities from earlier stages of the criminal process, it may seem inconsistent that this would not occur for defendants without records who still faced potential discrimination at arrest. There are several potential explanations for this. First, only 11% of defendants without records receive prison sentences, which suggests that most of these defendants are not on the margin of receiving a prison sentence. Thus, the similar treatment of Black and white defendants without records may reflect the fact that there is simply less scope for discretion over the type of punishment among those who were never at risk of being sentenced to prison in the first instance. Consistent with this reflecting a floor problem (the risk of prison cannot go below zero), Black defendants without records whose arresting charges are severe enough to put them at risk of receiving a prison sentence *are* less likely to be incarcerated than white defendants without records with similarly severe arresting charges (see Figure E.5).[106] Since relatively few defendants without records are arrested on severe charges, the aggregate analysis for defendants without records masks this disparity.[107]

A second potential explanation is that the vast majority of defendants without records are arrested on property, violent, or sex charges—offenses that are more likely the result of a witness or victim report to the police than a police officer's on-the-spot discretion at arrest. Without a criminal record or a current arrest that strongly reflects police discretion, a prosecutor may feel that there is less reason to suspect that these defendants were exposed to significant bias at earlier stages of the process.[108]

elections are 0.54pp less likely to incarcerate Black defendants relative to facially similar white defendants (95% CI = [-0.03, 1.12]).

106 Hannah Shaffer, Online Appendices, 85, https://perma.cc/7TMT-45Q8.

107 Black defendants without records are more likely to receive a charge reduction post-arrest than facially similar white defendants without records. *See id.*

Since charge reductions do not have the same floor problem as prison sentences (over a third of Black and white defendants without records receive charge reductions post-arrest), this disparity in charge reductions suggests that the similar prison rates for defendants without records reflects a floor problem.

108 Among Black defendants in North Carolina Superior Court who do not have prior records and are arrested for a drug or weapon possession offense—which likely does reflect on-the-spot police discretion—only 2% receive a prison sentence.

3. Robustness to alternative controls and case outcomes.

The estimated penalty for prior convictions paints a consistent picture—one of a system counteracting the effects of criminal record disparities. Table 1 presents the linear relationship between priors and prison, and Table E.2[109] presents the absolute level of prison for defendants without felony records and in four quartiles of prior points for defendants with records. The first column of both tables estimates the raw disparity in the priors-prison relationship. The second column estimates the relationship for defendants with similar arresting charges and criminal records who start in the same position in the state sentencing guidelines, as in Equation 1. The third column adds controls for the office and crime unit handling the case, as in Equation 2.[110] The fourth column adds controls for the prosecutor, specifically controls for each prosecutor's aggregate racial disparity in prison outcomes and each prosecutor's average penalty of prior convictions (prosecutor x race and prosecutor x prior-point fixed effects).[111] The fifth column adds additional controls for the specific composition of a defendant's criminal history—i.e., the number of prior convictions in each offense class of the state sentencing guidelines and the number of prior convictions within twelve broad offense types. The fifth column further controls for the defendant's specific arresting charge, age, and gender. The patterns are stable across specifications.

This analysis focuses on disparities in prison rates, but the results are similar for other charge and sentencing outcomes. Figures E.2[112] and E.3[113] and Table E.3[114] show similar patterns for

109 Hannah Shaffer, Online Appendices, 78, https://perma.cc/H85S-HA7C.

110 Looking within district attorney office and unit would be important if Black defendants with criminal records were particularly likely to have cases in offices or units that were more lenient (or if Black defendants were disproportionately likely to be in offices or units that put less weight on priors).

111 Looking within prosecutor would be important if cases were imbalanced across prosecutors with different tendencies: for example, if Black defendants with criminal records were particularly likely to have cases handled by prosecutors who were more lenient, if Black defendants were disproportionately likely to have cases handled by prosecutors that put less weight on prior convictions, or if prosecutors who had lower racial disparities in their cases (independent of prior record length) were more likely to handle cases with Black defendants who have extensive prior records.

112 Hannah Shaffer, Online Appendices, 79, https://perma.cc/CR7J-476Z.

113 Hannah Shaffer, Online Appendices, 80, https://perma.cc/HA3H-FSJH.

114 Hannah Shaffer, Online Appendices, 81, https://perma.cc/LN9X-EXC5.

prison sentence length. Figure E.4[115] and Table E.4[116] show similar patterns for charge reductions and dismissals. Table E.5[117] considers the number of prior felony convictions as opposed to criminal record prior points.

C. Change Over Time

The smaller penalty for Black defendants' priors has become more pronounced over the last decade. While white defendants with felony records were 7.0% more likely to be sentenced to prison than Black defendants with similar arrests and criminal records at the beginning of the decade, this difference grew to 20.80% by the end of the decade.[118] Figure 3 presents the raw trend, Figure E.6[119] the trend for facially similar defendants in the same office and unit, and Table E.8[120] the average yearly change. The evidence is clear: over the past decade, the post-arrest system has increasingly placed less weight on the prior convictions of Black defendants relative to white defendants.

There is also evidence that the system's disparate penalty of priors did not always exist (and may have been flipped) in earlier years. Figure E.5[121] shows that prison rates from 2005 to 2009 were virtually identical for Black and white defendants across all criminal records, which indicates that the system punished Black and white defendants' records equally.[122] Rather than offsetting past disparities, the system passed through past disparities in the late 2000s.[123]

115 Hannah Shaffer, Online Appendices, 82, https://perma.cc/LPP5-VPGF.

116 Hannah Shaffer, Online Appendices, 83, https://perma.cc/JDA9-J2L3.

117 Hannah Shaffer, Online Appendices, 84, https://perma.cc/Y42M-7EA6.

118 Racial disparities decreased for all defendants regardless of criminal history, but almost certainly the trend was driven by defendants with criminal records.

119 Hannah Shaffer, Online Appendices, 88, https://perma.cc/2JAN-LGTN.

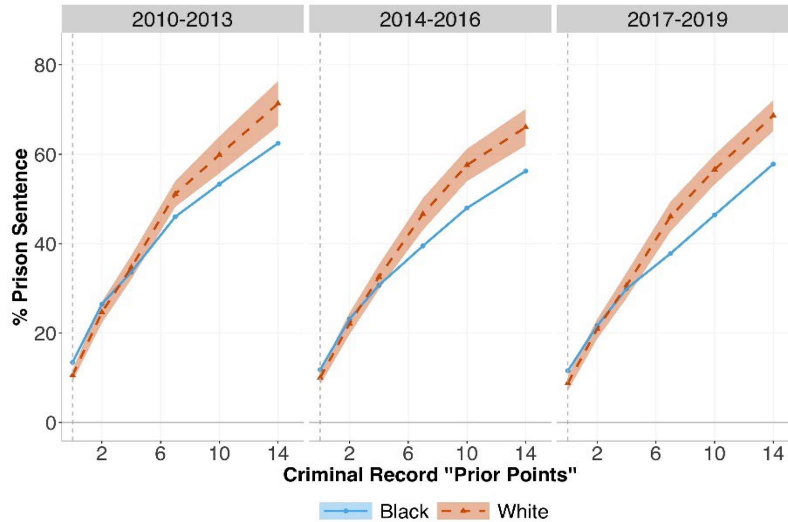
120 Hannah Shaffer, Online Appendices, 89, https://perma.cc/4JWT-UARF.

121 Hannah Shaffer, Online Appendices, 85, https://perma.cc/7TMT-45Q8.

122 I exclude these earlier years in my primary analysis because dismissals were not recorded before 2010. *See supra* Part II.A.1.

123 This trend is consistent with the results in Harrington & Shaffer, *supra* note 4, at 4, which finds that prosecutors in the 2010s were more likely to reduce Black defendants charges to sidestep mandatory prison laws under the North Carolina sentencing guidelines but were equally likely to sidestep mandatory prison for Black defendants in the 2000s (and were less likely to in the 1990s).

FIGURE 3: TREND IN THE DISPARATE PENALTY FOR PRIORS



These panels show the relationship between prior points and the share of Black and white defendants who receive prison sentences over three even periods of the sample. The orange bands reflect the 95% confidence intervals for the difference between white and Black prison rates. Standard errors are clustered by elected district attorney.

1. Unpacking the trend: police-initiated versus witness-initiated priors.

There are many possible explanations for the trend in the system's penalty of criminal records—changes in state politics, elected district attorneys' policies, police practices, or conversations about police bias, to name a few.

If the trend were driven by increasing attention to police bias, one would expect the trend to be concentrated in prior convictions initiated by police stops. To test this theory, I compare the trend in the penalty of prior convictions for drug and weapon possession offenses—which likely were initiated by a police officer's decision to stop and arrest a civilian—to the same trend for prior convictions for violent, sex, and property offenses—which likely were initiated by a victim's or witness's report to police.[124] I refer to

[124] Harrington & Shaffer, *supra* note 4, at 4–5, uses this dichotomy between police-initiated and victim-initiated arrests to analyze prosecutors' response to disparities in police arrests.

prior convictions for drug and weapon possession offenses as "police-initiated priors" and to prior convictions for violent, sex, and property offenses as "victim-initiated priors."[125]

Figure E.7[126] and Table E.10[127] reveal that the trend is concentrated in shifting penalties for police-initiated priors.[128] This pattern suggests that the change in North Carolina stemmed from a shift in perceptions of police bias (or an increasing awareness of racial disparities in punishments for drug offenses).[129] General shifts in attitudes about drug offenses cannot explain these patterns since prosecutors penalized the police-initiated priors of Black defendants significantly less than those of facially similar white defendants (see the first row of Table E.10).[130]

In theory, this marked change in the disparate penalty of police-initiated priors could reflect a shift in police practices. If police officers became increasingly likely to arrest Black people from 2010 to 2019, then the trend need not reflect a shift in post-arrest decision-making. But trends in arrest disparities suggest that this story is unlikely to explain the trend. If anything, arrest disparities have declined over the last decade in North Carolina (Figure E.1).[131]

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[125] While police retain discretion over the grade of the arrest charge in other cases, they typically have more unilateral discretion over the decision to initiate an arrest for drug and weapon possession offenses. These arrests are therefore most likely to absorb any systemic or individual police bias. This approach to categorizing offenses according to the degree of police discretion over the on-scene arrest is similar to the categorization in WAYNE R. LAFAVE, JEROLD H. ISRAEL, & NANCY J. KING PRINCIPLES OF CRIMINAL PROCEDURE: POST-INVESTIGATION (2004). *See also generally* A. Tomic & J. K. Hakes, *Case Dismissed: Police Discretion and Racial Differences in Dismissals of Felony Charges*, 10 AM. L. & ECON. REV. 110 (2008) (using a similar categorization of offenses based on the degree of police discretion).

[126] Hannah Shaffer, Online Appendices, 90, https://perma.cc/LY52-YQ2T.

[127] Hannah Shaffer, Online Appendices, 93, https://perma.cc/7ESA-2AP9.

[128] Figure E.7 separately illustrates the trends in the system's disparate penalty of prior points accumulated from police-initiated priors (in the left panel) and witness-initiated priors (in the right panel) across three parts of the sample period. *See* Hannah Shaffer, Online Appendices, 90, https://perma.cc/LY52-YQ2T). The estimates in the first row of Table E.10 show the linear trend in the racially disparate penalty of police-initiated priors. *See* Hannah Shaffer, Online Appendices, 93, https://perma.cc/T6HM-EH4Z.

[129] For instance, Congress enacted mandatory minimums in which each gram of crack was equivalent to one hundred grams of powder cocaine for minimum sentencing calculations. The legislation was originally codified in the Anti-Drug Abuse Act of 1986, Pub. L. No. 99-570, 100 Stat. 3207 (1986), and the relevant portion is at 21 U.S.C. § 841(b)(l)(A) (1994).

[130] *See* Hannah Shaffer, Online Appendices, 93, https://perma.cc/7ESA-2AP9. The marked trend for police-initiated priors is consistent with surveyed prosecutors' shifting beliefs about the extent of racial bias in the system. *See infra* Part II.C.3.

[131] Hannah Shaffer, Online Appendices, 76, https://perma.cc/MA26-JETG.

Strikingly, there has been almost no change over time in the racially disparate penalty of victim-initiated priors.[132] Instead, the post-arrest system has consistently penalized the prior convictions of Black defendants less than those of white defendants for property, violent, and sex priors. To the extent that offenders and victims are more likely to be the same race, this finding could reflect the fact that either Black victims and witnesses are less willing to cooperate with the state or that post-arrest decisionmakers are less likely to press for severe punishments when the victim is Black, or both. The latter explanation is consistent with other studies finding that punishments tend to be more severe in cases with white victims.[133]

2. Considering contributing factors: The Racial Justice Act.

In 2009, North Carolina passed the Racial Justice Act (RJA),[134] which commuted capital sentences of defendants who could prove that race was a significant factor in the decision to seek or impose the death penalty.[135] Although the law was repealed in 2013 and only ever applied to capital cases, it nonetheless may have sensitized decisionmakers in the post-arrest system to racial bias in the criminal process more generally.[136] However, it is unlikely that the RJA directly caused the trend in the system's disparate penalty of criminal records. First, the shift in the racially disparate impact of the post-arrest system very likely began *before* 2009.[137] Second, the shift occurred gradually over time, both before and after the repeal of the law. Therefore, it is perhaps more likely that the social and political forces that led to the passage of the RJA also contributed to the trend in the post-arrest system.

132 For more on this, see Table E.10 row two in Hannah Shaffer, Online Appendices, 93, https://perma.cc/7ESA-2AP9.

133 *See e.g.*, Baldus et al., *supra* note 11, at 707–10.

134 N.C. STAT. §§ 15A-2010 to -2012 (2009).

135 Gen. Assemb. of N.C., S.B. 461 (N.C. 2009).

136 Matthew Burns, *McCrory Signs Repeal of Racial Justice Act*, WRAL NEWS (June 19, 2013), https://perma.cc/M58E-LGJR.

137 *See* Harrington & Shaffer, Brokers of Bias, *supra* note 4, at 4 (finding that North Carolina prosecutors increasingly reduced racial disparities over twenty-five years beginning in 1995—increasing them in the 2010s, passing them through in the 2000s, and increasing them in the 1990s).

3. Considering potential contributing factors: shift in elected district attorneys.

Given the rise of the progressive prosecution movement, one might think that newly elected, progressive district attorneys were responsible for the recent change. However, the time-series estimates are unaffected by the inclusion of controls for the average racially disparate penalty of prior convictions under each elected district attorney (Table E.9).[138] This indicates that it was not a compositional shift in leadership—or merely an artifact of newly elected district attorneys hiring new line prosecutors or implementing new policies—that drove this shift.[139]

III. PROSECUTORS' OFFSET OF DISPARITIES

This Part uses a survey of North Carolina prosecutors to provide a window into the post-arrest process—and to help reveal whether prosecutors' beliefs about bias drove the lower penalty for Black defendants' criminal records. Section A describes the survey data and the method that I use to characterize prosecutors' beliefs using the survey. Section B presents the results from linking the survey to the North Carolina court records.

A. Survey Data and Questions

In November 2019, following an in-person pilot in two offices, 203 prosecutors took the survey in two waves between May and November 2020. My collaborators and I had the support of the North Carolina Conference of District Attorneys, and we met individually with each elected district attorney who expressed interest in the survey. As a result, the sixteen participating district attorneys encouraged their line prosecutors to take the survey, which led to a high participation rate (52%) in participating offices.[140] After taking the online survey, ninety prosecutors chose

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138 Hannah Shaffer, Online Appendices, 91, https://perma.cc/JGE9-TBD3.

139 Because the turn toward electing progressive district attorneys in North Carolina only began in the most recent election cycle, the non-effect of newly elected district attorneys on the trend is perhaps unsurprising. In 2018, four new Black, liberal district attorneys were elected to the largest jurisdictions within the state.

140 William Murdock, Emma Harrington & Hannah Shaffer, Prediction Errors, Incarceration, and Violent Crime: Evidence from Linking Prosecutor Surveys to Court Records (2023) (working paper) evaluates the relationship between prosecutors' beliefs about violent re-offense and their impacts on incarceration and violent re-offense in their cases.

to speak with us about the survey and about their broader experiences as a prosecutor in one-on-one meetings over Zoom. Surveyed prosecutors' experience, demographics, and politics appear to be broadly representative of line prosecutors in North Carolina (see Table E.11).[141]

Each prosecutor's survey responses were linked to her felony cases between 2010 and 2019. String distance algorithms were used to link together distinct names in the court record that likely reflected the same prosecutor (see Appendix A).[142] The third column of Table E.1[143] presents summary statistics for the 66,603 cases in this linked sample. Table E.11[144] compares the survey sample to other district attorney offices.[145] Charge and sentencing outcomes among surveyed prosecutors are virtually identical to those in the analysis sample, as are summary measures of criminal history.[146] In 2019, surveyed prosecutors handled 27% of all felony cases in the analysis sample.[147]

The survey analysis proceeds in two steps. I first characterize the extent to which a prosecutor believes that disparities in the criminal process are driven by anti-Black bias or by Black people having worse criminal conduct. To do this, I use a survey question that asked prosecutors how much prison disparities are driven by Black defendants having more severe past criminal conduct, and how much prison disparities are driven by the perception that Black defendants' conduct is more serious than the same conduct

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Emma Harrington & Hannah Shaffer, How Individual Bias Become Systemic Discrimination (2023) (working paper) analyzes how surveyed prosecutors respond to disparities in police arrests.

141 Hannah Shaffer, Online Appendices, 94, https://perma.cc/J38W-BXF3. Approximately a third of surveyed prosecutors were registered Democrats, marginally more than in the full sample of North Carolina prosecutors. Only 9% of prosecutors in both the surveyed population and full sample were Black (compared to 20% of the North Carolina population). Prosecutors were typically in their early forties and had a decade of experience. Participating offices were slightly more likely to be in urban, liberal parts of the state and therefore also tended to have more cases with Black defendants.

142 Hannah Shaffer, Online Appendices, 58, https://perma.cc/6B5A-HBNS. Among participating prosecutors, 86% matched to the court records, with a 94% match rate among prosecutors hired before 2020 who handle felony cases.

143 Hannah Shaffer, Online Appendices, 77, https://perma.cc/REZ4-9LVX.

144 Hannah Shaffer, Online Appendices, 94, https://perma.cc/J38W-BXF3.

145 Since participants in the 2020 survey were more likely to handle cases later in the 2010s, this comparison uses cases from 2019 to get closer to an apples-to-apples comparison.

146 Participating offices were slightly more likely to be in urban, liberal parts of the state and therefore also tended to have more cases with Black defendants.

147 There are more than sixteen district attorney offices in the survey sample because several prosecutors worked in multiple state offices in the past decade.

of white defendants. Prosecutors were asked to indicate the importance of each explanation on a scale of zero to one hundred.[148] I classify prosecutors by comparing their numerical responses to the racial bias and disparate criminal conduct questions. Appendix D[149] explains how I used the survey to classify prosecutors and shows robustness to alternative classifications.

After linking prosecutors' survey responses to their cases in the court records, I then assess whether prosecutors who perceive significant bias in the system tend to put less weight on Black defendants' priors. Empirically, I compare the relationship between priors and prison for Black defendants relative to white defendants in cases handled by prosecutors who report a higher importance of bias (relative to disparate conduct) and then compare this to the same relationship for prosecutors who report a lower relative importance of bias.

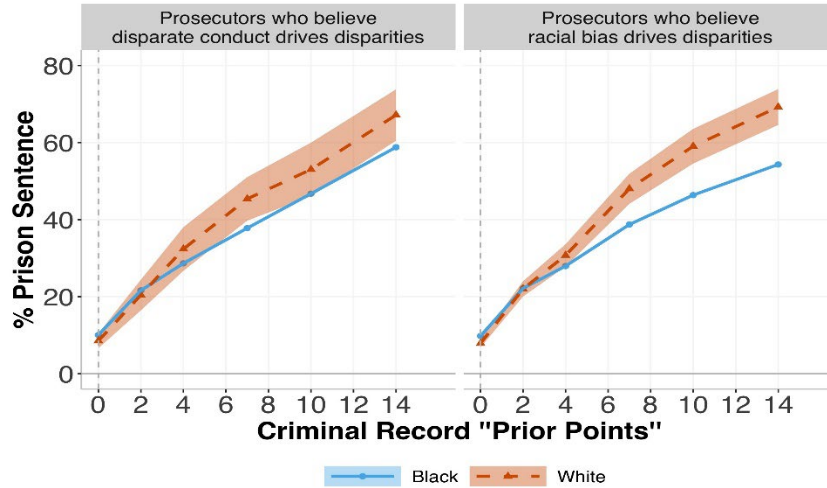
B. Results

Figure 4 contrasts the raw relationship between prior points and prison sentencing rates for prosecutors with different reported beliefs. The left panel includes cases handled by prosecutors who indicate that disparate criminal conduct is more important than racial bias, while the right panel includes cases handled by prosecutors who indicate that bias is more important than (or as important as) disparate conduct. Across the two groups of prosecutors, prison disparities diverge as defendants' prior records become more extensive. While the increase in prison for additional priors is smaller for Black defendants in both groups, prosecutors who report a stronger role for bias have significantly weaker relationships between priors and prison for Black defendants relative to white defendants.

148 Figure D.1 Panel (A) shows the question as it appeared on the survey interface. *See* Hannah Shaffer, Online Appendices, 72, https://perma.cc/W4SJ-R35S.

149 Hannah Shaffer, Online Appendices, 69, https://perma.cc/XY4H-EPMW.

FIGURE 4: PROSECUTORS' BELIEFS ABOUT THE SOURCE OF DISPARITIES AND THE DISPARITIES IN THEIR CASES



This figure contrasts the raw relationship between prior points and prison rates for prosecutors with different views about the source of prison disparities. This figure splits prosecutors using their survey responses (Figure D.1. *See* Hannah Shaffer, Online Appendices, 72, https://perma.cc/W4SJ-R35S, for the question interface). The left panel includes cases of prosecutors who report that disparate criminal conduct drives prison disparities more than anti-Black bias. The right panel includes prosecutors who report that bias drives disparities more than (or as much as) disparate conduct. The orange bands reflect the 95% confidence intervals for white relative to Black prison rates.

Table 2 summarizes the racially disparate relationship between priors and prison across prosecutor beliefs—using the difference between prosecutors' reported importance of bias and disparate conduct, which I refer to as the prosecutor's "bias gap" score. I define the prosecutor's bias gap as her numerical response to the racial bias question (which is on a scale from zero to hundred) minus her numerical response to the difference in criminal conduct question (also on a scale from zero to one hundred). This means that prosecutors with higher bias gap scores attribute disparities more to bias than conduct relative to prosecutors with lower bias gaps. To ease interpretation, I normalize the scores to have a mean of zero and a standard deviation of one.

For prosecutors with average bias gap scores, the increase in prison for each additional low-level felony was 36.6% (or 2.6pp)

larger for white than Black defendants.[150] For prosecutors with bias gaps one standard deviation above average, the increase in prison for white defendants' priors relative to Black defendants' priors was 23% (.59pp) larger than average.[151] This difference across prosecutors persists after restricting comparisons to facially similar defendants (the second column in Table 2).

1. Relationship between prosecutor beliefs and disparate impacts.

While the divergent patterns across prosecutors are suggestive, they do not necessarily reveal the relationship between a prosecutor's stated belief and her impacts on case outcomes. To interpret the survey estimates as capturing the association between prosecutors' beliefs and their disparate impacts, it would have to be the case that cases are not unobservably different across prosecutors. Since cases are not randomly assigned across district attorney offices, the foregoing estimates might capture latent differences in cases across offices or crime units within offices.[152] The estimates may also capture selective assignment to cases based on prosecutors' beliefs.[153]

In North Carolina, felony cases are quasi-randomly assigned to prosecutors who handle cases in the same crime unit of the same district attorney office. I use this quasi-random assignment

[150] 95% CI = [2.12pp, 3.02pp]. *See* Table 2 column one, rows four and six ($\frac{2.57}{7.02}$ = 36.61%). A low-level felony adds two prior points to a defendant's score. *See* N.C. GEN. STAT. § 15A-1340.14. The average raw bias gap score is -5, and the standard deviation is 34.8. The racial bias and differences in criminal conduct responses are both on a scale of zero to one hundred.

[151] 95% CI = [0.04pp, 1.13pp]. *See* Table 2 column one, rows one and four ($\frac{.59}{2.57}$ = 22.96).

[152] Prosecutors' views may influence the office in which they choose to work. If the cases of Black defendants relative to white defendants with longer priors were unobservably different across office, prosecutors' selection into different offices could drive the observed patterns. Appendix C discusses the problem of selection on unobservables, and note 153 explains the intuition. *See* Hannah Shaffer, Online Appendices, 65, https://perma.cc/T6LT-7CXN.

[153] Certain prosecutors may tend to work in offices or units where all prosecutors, regardless of their beliefs, would respond more (or less) to the prior records of Black defendants. Imagine, for instance, that all prosecutors discounted the priors of Black defendants arrested on drug charges relative to those of facially similar white defendants. If prosecutors with stronger beliefs about bias were more likely to handle drug cases, then prosecutor beliefs would predict prosecutors' racially disparate penalty of priors, despite the fact that all prosecutors would have made the same decisions had they handled more drug cases. If, as in this example, cases are observably different across prosecutors, one could easily correct for this selection bias. If, however, cases are *unobservably* different, one could not correct for this bias.

to better isolate prosecutors' impacts on disparities. Intuitively, looking within office crime units nets out differences across offices and units that might lead prosecutors to choose different punishments for defendants who appear the same in their case files. Appendix C[154] considers two tests of quasi-random assignment.[155] Table C.1 shows balance in case characteristics across prosecutors with different beliefs. Table C.2 shows the stability of prosecutors' impact on racial disparities when they move to different offices.

The fourth column of Table 2 estimates within-unit differences, which effectively compares prosecutors who handle similar types of cases under the same elected district attorney. For instance, it assesses whether prosecutors with higher bias gap scores in Charlotte's drug unit have different outcomes than their colleagues in the same unit with lower bias gap scores.

Even within units—where prosecutors receive similar cases, report to the same district attorney, and work with the same defense attorneys, judges, and police officers—the differences across prosecutors persist. For prosecutors with bias gaps one standard deviation higher than average, their higher penalty for the priors of white defendants (relative to facially similar Black defendants in their office unit) was 56.8% (1.05pp) larger than average.[156]

Figure 5 illustrates within-unit differences across prosecutors. It depicts the disparate penalty for priors in cases assigned to prosecutors who report a larger role of bias (in purple diamonds) versus disparate criminal conduct (in orange circles) who work in the same office crime unit. The points on the figure show prison disparities for defendants without felony records and defendants in four quartiles of prior points with felony records. For prosecutors who attribute disparities more to bias, white defendants in the top two prior-record groups were significantly more likely to receive a prison sentence than facially similar Black defendants.[157] Strikingly, disparities in prison rates among prosecutors who attribute a larger role to disparate criminal conduct were indistinguishable from zero across all prior-record groups. These

154 Hannah Shaffer, Online Appendices, 65, https://perma.cc/T6LT-7CXN.

155 Appendix B.ii details how cases were divided into units for within office-unit analyses. *See* Hannah Shaffer, Online Appendices, 61, https://perma.cc/QC8B-QNHR.

156 The final columns of Table 2 show robustness to looking within prosecutor and adding controls for the specific prior-record composition and defendant demographics.

157 Figure E.8 shows robustness to using within-prosecutor estimates. *See* Hannah Shaffer, Online Appendices, 92, https://perma.cc/CX33-YP94.

results are stable across a range of specifications and classifications of prosecutors' reported beliefs.[158]

These findings highlight how prosecutors' perceptions of upstream bias can affect ultimate disparities: prosecutors who perceive significant bias in the system drive the system's offset of past disparities. By contrast, prosecutors who believe that disparities are explained by differences in criminal conduct imprison Black and white defendants at similar rates, effectively passing through disparities inherited from the past.

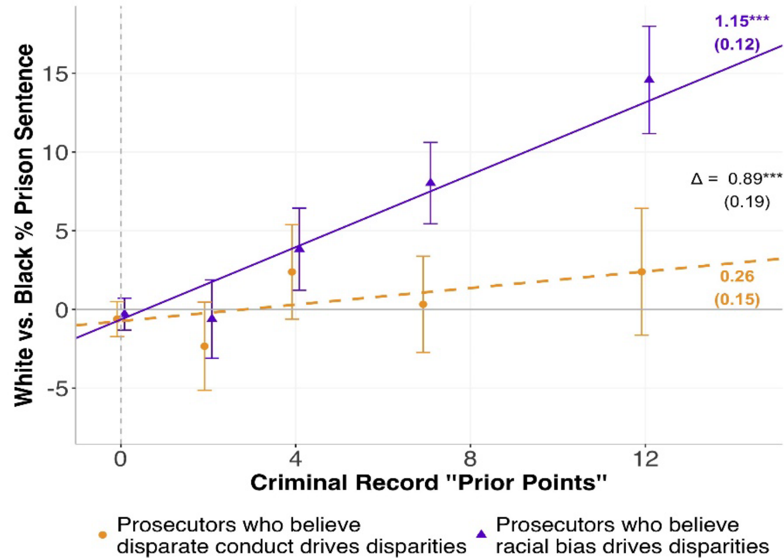
[158] Table E.12 presents the same specifications as Table 2 but splits prosecutors into two groups as opposed to using the continuous bias gap scores. *See* Hannah Shaffer, Online Appendices, 95, https://perma.cc/Q5YD-YHPB. Table E.13 uses felony record quantiles rather than prior points. *See* Hannah Shaffer, Online Appendices, 96, https://perma.cc/B7HF-A7YN. Appendix D shows robustness to alternative classifications of prosecutors according to their survey responses. *See* Hannah Shaffer, Online Appendices, 69, https://perma.cc/XY4H-EPMW.

TABLE 2: DISPARATE PENALTY FOR PRIOR CONVICTIONS ACROSS PROSECUTORS' BELIEFS ABOUT THE SOURCE OF RACIAL DISPARITIES

	Prison Sentence					
				Within Unit	Within Prosecutor	
	(1)	(2)	(3)	(4)	(5)	(6)
Bias Gap (Z) x White x Priors	0.59**	0.71***	0.98**	1.05**	0.93**	0.90**
	(0.28)	(0.26)	(0.39)	(0.47)	(0.40)	(0.43)
Bias Gap (Z) x White	−0.88	−0.80	0.15	−0.59	−0.18	−0.23
	(0.58)	(0.50)	(0.44)	(0.47)	(0.34)	(0.36)
Bias Gap (Z) x Priors	−0.50*	−0.51**	−0.42*	−0.46*		
	(0.26)	(0.21)	(0.23)	(0.24)		
White x Priors	2.57***	2.11***	1.85***		1.81***	1.73***
	(0.23)	(0.22)	(0.31)		(0.30)	(0.32)
White	−2.47***	0.52	−0.68*		−0.74**	−0.68*
	(0.58)	(0.49)	(0.36)		(0.32)	(0.37)
Priors	7.02***					
	(0.22)					
SG FE (Offense Class x Priors x Year)		✓				
Office Unit x SG FE			✓		✓	✓
Office Unit x SG x White FE				✓		
Prosecutor x Priors FE					✓	✓
Priors Composition FE						✓
X_i + Arrest Charge FE						✓
Dependent Mean	19.62	19.62	19.62	19.62	19.62	19.62
Mean Bias Gap	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Std Dev Bias Gap	34.8	34.8	34.8	34.8	34.8	34.8
# Cases	66,602	66,602	66,602	66,602	66,602	66,602
# Prosecutors	174	174	174	174	174	174
# District Attorney Offices	22	22	22	22	22	22

Notes: This table investigates the relationship between prosecutors' reported beliefs about the drivers of prison disparities and the racial disparities in their cases from 2010 to 2019. Prosecutors are characterized according to their reported importance of racial bias minus disparate criminal conduct (their "bias gap" score). *See* Figure D.1 for the question interface. All specifications normalize bias gap scores to have a mean of zero and standard deviation of one. Column one estimates the raw relationship between bias gap scores and disparate penalties of priors. Column two accounts for the defendant's initial position in the sentencing guidelines, which depends on the arresting charge and criminal record, as in Equation 1. Column three interacts the controls in column two with the office and crime-unit handling the case, as in Equation 2. Column four looks *within* office units, by interacting the controls in column three with defendant race. Column five looks *within* prosecutor by introducing controls for each prosecutor's average penalty of priors. The final column adds fixed effects for the specific composition of prior felonies in each offense class and within twelve broad offense types. The final column further controls for the specific arresting charge and X_i, which is defendant gender and age. Standard errors are clustered by prosecutor. ***Significant at 1% level; **5%; *10%.

FIGURE 5: DISPARATE PENALTY FOR PRIORS AMONG PROSECUTORS WITH DIFFERENT BELIEFS ABOUT THE SOURCE OF RACIAL DISPARITIES



This figure contrasts prison disparities for prosecutors with different beliefs about the source of disparities. It splits prosecutors into two groups using the 2020 survey. For more, see Figure D.1, Hannah Shaffer, Online Appendices, 72, https://perma.cc/W4SJ-R35S, for the question interface. The horizontal axis is prior points, and the vertical axis the percentage point difference in prison for white relative to Black defendants with similar arrest charges and criminal records in the same office unit. points include defendants with no prior felony conviction. The other eight points reflect quartiles of prior points for defendants with records. The ten points were jointly estimated using Equation 6, see Hannah Shaffer, Online Appendices, 62, https://perma.cc/VU5J-WC2T, fully interacted with an indicator for whether the prosecutor reported that racial bias or disparate criminal conduct is a more important driver of prison disparities. For more, see Appendix B, Hannah Shaffer, Online Appendices, 60, https://perma.cc/4K2D-853K. The error bars reflect the 95% confidence interval for white relative to Black prison rates. The fit lines and the top and bottom annotated coefficients reflect the change in disparities for additional prior points. The middle annotation is the estimated difference between the two prosecutor groups. ***Significant at the 1% level. **5%. *10%.

a) Down-weighting Black vs. up-weighting white defendants' priors. A prosecutor who penalizes the priors of white defendants more than those of Black defendants *relative* to other prosecutors could be either (1) penalizing white defendants' priors more than other prosecutors or (2) penalizing Black defendants' priors less than other prosecutors, or both. The estimates in Table 2 indicate that prosecutors with higher bias gap scores both

increase punishment more for white defendants with more priors relative to other prosecutors (as implied by adding the estimate in row three to row one) *and* increase punishment less for Black defendants with longer priors relative to other prosecutors (as shown in row three). This is consistent with prosecutors who report higher bias gap scores interpreting the priors of Black defendants as less meaningful signals relative to prosecutors with lower bias gaps and also interpreting the priors of white defendants as more meaningful signals.

b) Response bias. One might suspect that response bias drives the results. Some prosecutors may have wanted to appear progressive (or not progressive), either to themselves or the surveyor, causing them to report beliefs inconsistent with their true beliefs. Sixty percent of respondents took the survey in the wake of the murder of George Floyd in late May of 2020, during peak national interest in police abuse and racial bias in policing. Therefore, one might expect that response bias would have been particularly pronounced during this time.[159] While response bias very likely influenced what a prosecutor chose to report on the survey, it could not have influenced disparities in that prosecutor's case

[159] The change in prosecutors survey responses in the months following George Floyd's death suggests that prosecutors reported views did respond to the wave of national protests. Comparing all prosecutors who took the survey before and after George Floyd's murder, there is no statistical difference in the responses to either survey question used in this analysis—either to (a) how much on a scale of zero to one hundred are prison disparities driven by Black defendants having more severe criminal conduct? or (b) how much on a scale of zero to one hundred are prison disparities driven by the perception that Black defendants' conduct is more serious than the same conduct of white defendants? However, there may have been a lag in the impact of the national protests on prosecutors' stated views. Using a later date cutoff (August 31) to account for this potential lag, prosecutors' reported views about the importance of racial bias do shift. Prosecutors who took the survey in the post-period report that bias is ten points (or 50%) more important than prosecutors who took the survey in the pre-period (95% CI = [0.82, 21.08]). Using a date cutoff of July 31 yields virtually identical results.

One might predict that response bias would impact prosecutors differently depending on their political views—leading prosecutors who consider themselves to be liberal to increase their response to the racial bias question (and decrease their response to the disparate conduct question), while leading prosecutors who consider themselves to be conservative to do just the opposite. Using prosecutors' self-reported politics from the survey, there is also no statistical difference in the responses to the disparate conduct or racial bias questions for liberal prosecutors or conservative prosecutors around the date of George Floyd's murder. However, using the later date cutoff, liberal prosecutors increased their response to the racial bias question by eleven points (95% CI = [0.60, 23.02]) while conservative prosecutors (insignificantly) decreased their response to the bias question by eight points. There is no consistent pattern for the disparate conduct question.

outcomes from 2010 to 2019. After all, this ten-year period occurred *before* any prosecutor took the 2020 survey.[160] Therefore, response bias could not have driven the empirical relationship between prosecutors' reported beliefs and their racially disparate impacts in their past cases.

2. Heterogeneity across prosecutor race, politics, and cohort.

A prosecutor's race or political views may impact her belief about bias in the system and her ultimate impact on racial disparities.[161] Compared to more liberal prosecutors, more conservative prosecutors tend to report a higher importance of disparate criminal conduct than racial bias on the survey (as illustrated in Figure E.9)[162]; and, compared to Black prosecutors, white prosecutors tend to indicate a higher importance of disparate conduct than bias.[163]

Given these correlations, one might think that the variation across prosecutor beliefs is simply capturing prosecutors' politics or race. However, adding controls for prosecutor politics and race has a limited impact on the estimates (as shown in Table E.14),[164]

[160] One could tell a reverse causality story that more fundamentally compromises the interpretation of the results. Suppose that beliefs about the source of disparities were partly determined by prosecutors' previous caseloads. Further suppose that the past cases that led prosecutors to perceive more (or less) bias also led them to respond relatively more (or less) to white defendants' priors. This would produce estimates suggesting that prosecutors' beliefs drove their decisions—despite case selection driving both their beliefs and past decisions.

[161] Many scholars have shown that Black decision-makers in the criminal process lower racial disparities relative to white decision-makers. *See, e.g.*, Sloan, *supra* note 41, at 28 (finding white misdemeanor prosecutors in New York were more likely to convict Black than white defendants of property offenses, as compared to Black prosecutors, although prosecutor race had no association with racial disparities in other offense types); Bocar A. Ba, Dean Knox, Jonathan Mummolo & Roman Rivera, *The Role of Officer Race and Gender in Police-Civilian Interactions in Chicago*, 371 SCI. 696, 698–700 (2021) (finding that minority officers were less likely to stop, arrest, and use force than white officers, especially against Black civilians in majority-Black neighborhoods in Chicago); Shamena Anwar, Patrick Bayer & Randi Hjalmarsson, *The Impact of Jury Race in Criminal Trials*, 127 Q.J. ECON. 1017, 1040–48 (2012). *But see* David Alan Sklansky, *Not Your Father's Police Department: Making Sense of the New Demographics of Law Enforcement*, 96 J. CRIM. L. & CRIMINOLOGY 1209, 1225–26 (2006) (explaining that the while the actual evidence is mixed, there is a pervasive view that minority officers behave the same as white officers because of pressures to conform in the police subculture).

[162] Hannah Shaffer, Online Appendices, 97, https://perma.cc/9VH6-9W6V.

[163] The correlation between a prosecutor's liberalism and her bias gap score is 0.36, and the correlation with the prosecutor being Black is 0.43.

[164] Hannah Shaffer, Online Appendices, 98, https://perma.cc/9ZZE-JYWF.

suggesting that prosecutors' beliefs about the source of racial disparities is of independent importance. Moreover, the effect of a prosecutor's beliefs about bias versus disparate criminal conduct is similar for conservative and liberal prosecutors (as shown in Table E.15).[165]

Perhaps surprisingly, there is no statistical difference between more conservative and more liberal prosecutors' disparate penalty for prior convictions.[166] The estimated difference for Black prosecutors is large but imprecise due to the small number of Black prosecutors. However, prosecutors' politics and race do predict differences in the absolute level of racial disparities in their cases.[167]

Recent cohorts of prosecutors express strikingly different beliefs about the source of racial disparities in criminal outcomes. As shown in Figure 6, there was a marked change in reported beliefs around 2015: prosecutors increasingly indicated that anti-Black bias—as opposed to racially disparate conduct—was responsible for generating disparities.[168] The rise of the Black Lives Matter and progressive prosecutor movements—and perhaps a shift in the way we talk about prosecutors in criminal law courses—may have shifted the selection of new lawyers into prosecution. Despite the stark shift in prosecutors' beliefs around 2015, the shift in the post-arrest system's offset of prior conviction was relatively continuous from 2010 to 2019. This may reflect survey response bias, that prosecutors' beliefs were measured with noise, and that many other factors explain the post-arrest system's disparate response to prior convictions.[169]

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[165] If anything, the raw estimates in column one of Table E.15 suggest that the impact of prosecutors' beliefs about racial disparities is slightly stronger among conservative prosecutors. *See* Hannah Shaffer, Online Appendices, 100, https://perma.cc/F4AM-MVCK.

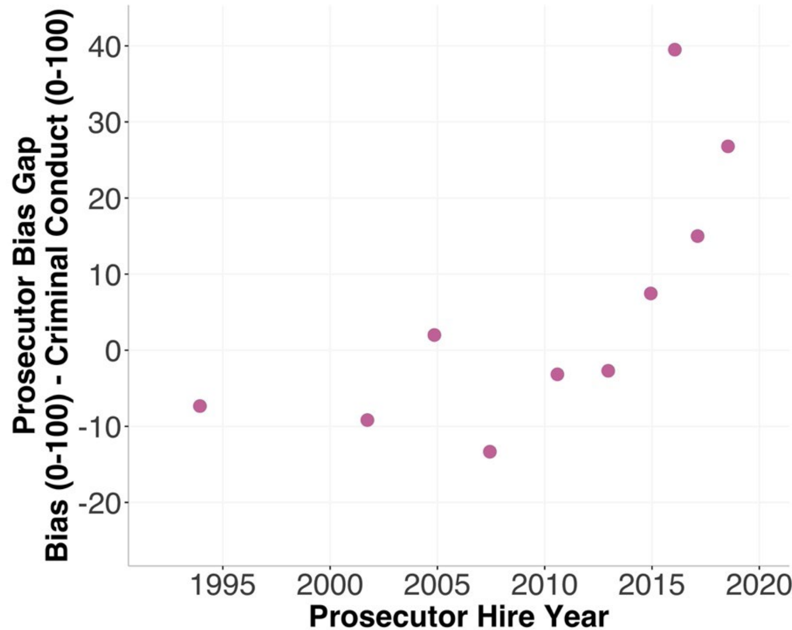
[166] For more, see Table E.1 row three in Hannah Shaffer, Online Appendices, 77, https://perma.cc/REZ4-9LVX.

[167] Compared to white prosecutors, Black prosecutors have 2.0pp (95% CI = [0.36pp, 3.64pp]) lower prison rates in their cases with Black defendants relative to facially similar white defendants in the same office and crime unit. Compared to the prosecutors with average political views, prosecutors who report one standard deviation more liberal views have 0.89pp (95% CI = [0.15pp, 1.62pp]) lower prison rates in cases with Black defendants relative to facially similar white defendants in the same office unit.

[168] Recent cohorts of prosecutors are increasingly liberal, although this shift has been more gradual (and linear) than the shift in beliefs about racial bias. For more, see Figure E.9 in Hannah Shaffer, Online Appendices, 97, https://perma.cc/9VH6-9W6V.

[169] While new blood in district attorney offices may partly explain the trend in the system's offset of past disparities, the trend in the results is consistent with a change within existing prosecutors as opposed to across prosecutor cohorts.

FIGURE 6: PROSECUTOR COHORT AND BELIEFS ABOUT DISPARITIES



This figure illustrates the relationship between a prosecutor's cohort and beliefs about prison disparities for the 203 prosecutors who took the 2020 survey. The ten points reflect quantiles of hire year. The vertical axis is the prosecutors' "bias gap" score—the answer to the question about the importance of racial bias in driving prison disparities (on a scale from zero to one hundred) minus the answer to the importance of racial differences in criminal conduct (on a scale from zero to one hundred). *See* Figure D.1, Hannah Shaffer, Online Appendices, 72, https://perma.cc/W4SJ-R35S, for the question interface.

3. Interpreting the results.

The survey results raise a number of interpretive questions. The findings could indicate that a subset of prosecutors is making decisions based on defendant race—using race to interpret the degree of bias in prior convictions or the extent to which prior convictions provide accurate signals about dangerousness or moral culpability.[170] However, the findings could also be consistent with a race-neutral response to an unobservable correlate of priors and race. This section first considers whether the results reflect race-conscious or race-neutral decision-making. It then considers

[170] Even if the findings do reflect race-conscious decision-making, they likely would not give rise to concerns under the Equal Protection Clause. *See infra* note 221 and accompanying text.

whether the results reflect prosecutors' internal motivations or external pressures from judges, defense attorneys, or the public. Finally, it explains why the results cannot identity the causal effect of defendant race on case outcomes.

a) Race-conscious or race-neutral decisions. In general, prosecutors who reduce racial disparities may not be consciously or subconsciously considering the defendant's race (or even a correlate of race such as income or education). Instead, they may be restricting themselves to a cold assessment of the evidence. This possibility is especially easy to see when prosecutors evaluate *current* offenses. Suppose that charges brought against Black defendants tend to be weaker than those brought against white defendants. Black defendants may be more likely to be stopped without reasonable suspicion; and, since crime is often intraracial, greater distrust of the criminal process among Black people might lead to less witness and victim cooperation in cases with Black defendants.[171] In this case, prosecutors would reduce racial disparities simply by doing their job and dismissing or reducing charges that they cannot prove.[172] Therefore, reductions in disparities could reflect disparate evidence strength rather than a conscious response to race or even a voluntary choice.[173]

Unlike racially disparate punishment of current offenses, racially disparate punishment of *prior* convictions is less obviously consistent with race-neutral, case-specific decisions. While prosecutors do (or at least should) assess the adequacy of the evidence

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[171] Surveyed prosecutors in North Carolina report that witnesses on average refuse to cooperate in 30% of cases with white defendants and 41% of cases with Black defendants. *See also* Besiki L. Kutateladze, Nancy R. Andiloro, Brian D. Johnson & Cassia C. Spohn, *Cumulative Disadvantage: Examining Racial and Ethnic Disparity in Prosecution and Sentencing*, 52 CRIMINOLOGY 514, 538 (2014) (finding that most of the cases that the District Attorney of New York handles are intraracial and, thus, might lead to less victim cooperation).

[172] Given the extensive evidence of racial bias in policing, some prosecutors may take a harder look at the evidence when the defendant is Black. Thus, the results could reflect a race-conscious interrogation of the adequacy of the evidence.

[173] Professor Andrew Jordan's findings in Cook County are consistent with weaker cases being brought against Black defendants. Andrew Jordan, Racial Patterns in Approval of Felony Charges 19–21 (2022) (working paper) (on file with author) (finding that Black defendants from 2011 to 2016 were 5.7pp less likely to be convicted than were white defendants); Andrew Jordan, What Can Plea Bargaining Teach Us About Racial Bias in Criminal Justice? 30 (2021) (working paper) (finding that Black defendants from 1984 to 2019 receive shorter sentences than white defendants and are more likely to have their cases proceed to trial); *see also* Harrington & Shaffer, *supra* note 4, at 23–27 (finding that charge reductions are more likely for Black defendants than white defendants who initially do not qualify for mandatory prison, which is consistent with weaker evidence in arresting charges brought against Black defendants).

for current charges, prosecutors rarely dig into the specific evidence from prior cases on a defendant's rap sheet. Especially for low-level convictions or convictions that occurred years or decades in the past, it would be unusual or even impossible for the prosecutor to probe the evidence of the defendant's (or arresting officer's) conduct. Therefore, it is less likely that prosecutors who put less weight on Black defendants' prior convictions are making entirely race-neutral decisions about the strength of the evidence in past cases. Instead, the results may suggest that these prosecutors use race as a proxy for past discrimination or future offense risk—in much the same way that police may use race as a proxy for criminal propensity when profiling suspects.[174]

However, it is still possible that prosecutors who are more attuned to racial bias in the system are not relying on their generalized beliefs to differentially punish defendant's prior convictions. Instead, these prosecutors may simply be more attuned to idiosyncratic differences in past cases of Black and white defendants, which are unobservable to the researcher. For instance, those prosecutors who are sensitive to racial bias may be more attuned to the reputation of the specific police officer who made the past arrests—and may recognize, for instance, those officers who are more likely to stop and arrest Black pedestrians or motorists.

It is also possible that these prosecutors are responding to a correlate of defendant race, such as income or education, rather than race itself. Note, however, that this correlate of race would itself need to be correlated with the defendant's number of prior convictions to explain prosecutors' racially disparate penalty for priors. Put differently, if some latent difference between facially similar Black and white defendants led prosecutors to reduce punishments for Black defendants, one might expect relatively lower punishments for Black defendants across the board, independent of the length of a defendant's criminal history. By contrast, the reduction in punishments for Black defendants is smoothly increasing as prior records become more extensive. It therefore is more likely that prosecutors are responding to something about Black defendants' priors rather than a simple correlate of race or an unobservable difference in the current offense.

[174] It could be that prosecutors are relying on their beliefs about racial bias nationally or in their county police department or court system.

b) Internal motivations versus external pressures. The survey findings suggest that the smaller penalty for Black defendants' priors partially reflects prosecutors' beliefs about racial bias. However, the results could also reflect external pressures from judges, defense attorneys, the electorate, juries, or office policies. It is unlikely that office policy or a more socially aware public drove the results. Even within offices—and units within offices—prosecutors' beliefs predict their disparate impacts in their cases. In addition, one would expect pressure from juries or public opinion to reduce punishments for all Black defendants independent of the length of their record (especially given that juries are not informed of priors).

Since prosecutors' stated beliefs predict the racial disparities in their cases, this also suggests that the results reflect prosecutorial discretion, rather than pressure from defense attorneys or judges. However, it could be that defense attorneys put more pressure on prosecutors during plea negotiations (or that judges are more likely to threaten to reject deals with prison sentences) for Black defendants with extensive records.[175] If the prosecutors who perceive significant bias in the system are the only ones that cave to these pressures, then the discretion of judges or defense attorneys could have contributed to the survey findings.

c) Prosecutor bias & the causal effect of race. There are two things this analysis cannot tell us. First, it cannot reveal the extent of prosecutors' own racial biases.[176] Despite the fact that some prosecutors offset disparities inherited from police and past decision-makers (including past prosecutors), these prosecutors may still simultaneously introduce their own biases. Simply put, prosecutors who reduce disparities need only offset more disparities than they introduce.

Second, this Article does not aim to estimate the causal effect of race on prosecutors' decisions. Nor could it.[177] As many have

[175] Indeed, the racially disparate response to prior convictions in North Carolina is more pronounced in cases handled by public defenders than in cases handled by appointed counsel or private counsel. While this suggests that public defendants partially drive the aggregate offset of prior conviction disparities in the post-arrest system, it could also be that cases handled by public defendants are unobservably different from cases handled by appointed or private counsel.

[176] *See supra* Part III.B.1.

[177] Some economists have recognized that the causal effect of race is not a logically coherent concept given the lack of a race manipulation analogous to a "treatment." *See* D. James Greiner & Donald B. Rubin, *Causal Effects of Perceived Immutable Characteristics*, 93 REV. ECON. & STAT. 775, 775 (2011); Evan K. Rose, *A Constructivist Perspective on Empirical Discrimination Research*, 61 J. ECON. LITERATURE 906 (2022).

argued, race is inextricably linked with a constellation of physical and contextual markers that society has come to associate with racial identity—income, education, linguistic patterns, and dress, to name only a few. Given such a constructivist approach to race, prosecutors may be *interpreting* race and associating race with certain social phenomena—rather than simply observing race as an essential, physical category. Rather than aiming to net out unobservable differences across race, a complete picture of the system's impacts on disparities should include discretionary responses to unobservable correlates of race.[178]

IV. IMPLICATIONS

This Part takes up the policy and normative implications of the findings. Section A considers the impacts of policies that constrain or colorblind prosecutors. Section B presents and discusses suggestive evidence that prosecutors who discount the weight on Black defendants' priors are moving outcomes closer to racially equal punishment of underlying conduct. Section C discusses the implications of the findings for the progressive prosecution movement.

A. Policy Implications

This Section considers the impacts of proposals that explicitly or implicitly aim to colorblind prosecutors. After describing recent colorblinding interventions and their potential unintended consequences, I consider the impacts of a hypothetical law requiring consistent charging of defendants who enter North Carolina courts with similar arrests and criminal records. Since the net effect of colorblinding prosecutors depends on *who* current prosecutors are and how they compare to police and decision-makers in past cases, this Section concludes by discussing whether this Article's findings likely hold in other contexts.

[178] While my empirical strategy does not attempt to net out unobservable correlates of race that influence prosecutors' *voluntary* decisions, the design likely does difference away unobservable *constraints* on prosecutors that may force different outcomes for Black and white defendants. Were the results to have been driven by racially disparate evidence constraints, for instance, it must have been that Black defendants with longer criminal records were more likely to have *current* cases with weaker evidence than facially similar white defendants, but that Black defendants with shorter criminal records were not more likely to have current cases with weaker evidence.

1. Colorblinding prosecutors.

Colorblinding prosecutors or judges may seem like a natural remedy for racial bias in the criminal process. Likewise, a regulation mandating consistent treatment of defendants with similar arrests and criminal records may seem like a natural policy to reduce unwarranted disparities. In theory, a regime of colorblindness or equal treatment would prevent individuals from introducing their own racial biases. Without a consideration of race, how could there be racism?[179]

Despite the appeal of colorblindness and race neutrality, this Article poses challenges to scholars and advocates who seek to limit prosecutorial discretion—or blind prosecutors to defendant race—in order to reduce racial disparities.[180] Formally race-neutral policies ensure that current punishments entrench past disparities;[181] and they may even increase disparities by preventing prosecutors from checking disparities that they inherit from police and past decision-makers. In certain cases, it may be more effective to harness prosecutorial discretion than to regulate or eliminate it.

The demands to regulate prosecutors follow from the widespread view that prosecutorial discretion drives sentencing disparities and mass incarceration. Indeed, scholars have argued that the proliferation of overlapping criminal sanctions has created a broad liability net, empowering prosecutors to charge and punish civilians more extensively and more selectively.[182] Others argue that the combined prosecutorial power over investigation and adjudication invites bias and abuse of power.[183] And there is a general consensus that sentencing guidelines transfer power

[179] Chief Justice John Roberts encapsulates the tautological appeal of race neutrality and, specifically, the anticlassification view of the Equal Protection Clause: "The way to stop discrimination on the basis of race is to stop discriminating on the basis of race." Parents Involved in Cmty. Schs. v. Seattle Sch. Dist. No. 1, 551 U.S. 701, 748 (2007) (plurality opinion).

[180] A vocal minority of prosecutors I spoke with in North Carolina channeled this aspiration to colorblindness, insisting that they never factor race into their decisions or *even see* race.

[181] Many scholars have argued that facially race neutral policies perpetuate racial disparities from the past. *See, e.g.*, Roithmayr, *supra* note 43, at 151–52; Daniel Fryer, *Race, Reform, & Progressive Prosecution*, 110 J. CRIM. L. & CRIMINOLOGY 769, 795 (2020) (arguing that race-neutral diversion programs that consider an offender's prior contact with the criminal system will perpetuate "racially-charged policing and prosecution from a prior administration").

[182] *See supra* note 19 and accompanying text.

[183] *See* Barkow, *supra* note 2, at 871–73.

from judges to prosecutors, further enabling prosecutorial bias and overreach.[184] In the wake of these critiques, calls for external limits on the black box of prosecutorial charging have ranged from regulatory legislation to expert agency oversight to abolishing plea bargaining to more searching judicial review, to name a few.[185]

In the last few years, the ideal of blinding prosecutors to defendant race has gained momentum, both among scholars and elected district attorneys.[186] Two district attorney offices in California and one in Missouri recently implemented "race-blind charging," which uses machine learning algorithms to redact defendants' race and any information that signals race from police reports.[187] This technology was first deployed in the San Francisco District Attorney's Office.[188] Since then, the Stanford Computational Policy Lab—the group that first developed the race-blinding algorithm—has purportedly been contacted by over two dozen district attorney offices across the country for help implementing race-blind charging.

Colorblinding prosecutors is also a live debate among state legislatures. In September 2022, the California Legislature passed Assembly Bill 2778, the "Race Blind Charging" bill, which mandates race-blind charging in all district attorney offices in the state by January 2025.[189] According to the California Assembly fiscal committee, it will cost the state over three million dollars

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[184] *See supra* note 21 and accompanying text.

[185] *See supra* note 5. Professor Rachel Barkow advocates for technocratic checks on prosecutors via external data-driven oversight. *See* Barkow, *supra* note 5, at 166 (proposing that "another institutional actor or actors with the relevant expertise and access to data" coordinate and review prosecutor practices). She has also proposed "separation-of-functions" requirements to ensure that prosecutors not involved in the investigation make the final adjudicative decision. *See* Rachel E. Barkow, *Separation of Powers and the Criminal Law*, 58 STAN. L. REV. 989, 1035–50 (2006).

[186] *See* Baughman et al., *supra* note 24, at 72; Alex Chohlas-Wood et al., *supra* note 25, at 143–45.

[187] San Francisco, in partnership with the Stanford Computational Policy Lab (SCPL), was the first county to adopt this race-blinding technology. *See* Chohlas-Wood et al., *supra* note 25. In September 2021, Yolo County, California, also in partnership with the SCPL, adopted this technology. *See* Cleary, *supra* note 25. In April 2023, Jackson County District Attorney, Jean Baker, announced that her office would implement race-blind charging. Morgan Mobley, *Jackson County Prosecutor Discusses Implementation of Race Blind Charging System*, KCTV5 (Apr. 25, 2023), https://perma.cc/UY69-J36P.

[188] Researchers found that colorblinding prosecutors had no substantial effect on racial disparities in charging. *See* Chohlas-Wood et al., *supra* note 25, at 142.

[189] Cal. Assemb. 2778, 2021–22 Reg. Sess. (Cal. 2022); Keene, *supra* note 26. Nevada considered similar legislation in 2021. Nev. S. 337, 81st Sess. (Nev. 2021).

annually to implement the race-blind charging guidelines and review process.[190]

Other proposals to constrain prosecutors are grounded in the same colorblindness paradigm that fuels race-blind charging. Prosecutor guidelines—often presented as a counterweight to sentencing guidelines—are a case in point. For decades, advocates and scholars have advocated for prosecutor guidelines to ensure more uniformity and less bias in charging decisions.[191] Despite using the rhetoric of consistency and accountability, prosecutor guidelines, like traditional sentencing guidelines, are steeped in a colorblindness ideal.[192]

Reformers should exercise caution when considering interventions that explicitly—or implicitly—rely on colorblinding prosecutors to reduce disparities. First, while such policies may eliminate the potential for prosecutors to introduce new bias at charging, they may also eliminate the potential for prosecutors to counteract disparities generated at earlier stages in the pipeline. As this Article demonstrates, a prosecutor's interpretation of earlier disparities can itself be an important determinant of systemic disparities, and prosecutors who perceive significant bias in the system may choose to offset past disparities.[193] Colorblinding prosecutors—or mandating similar treatment of defendants with similar arrests and priors—would effectively shut down these discretionary offsets.[194]

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[190] *See* Robert J. Hansen, *Race Blind Charging Bill Passes State Assembly Unanimously*, DAVIS VANGUARD (May 25, 2022), https://perma.cc/YL34-R9PW.

[191] *See supra* note 27 and accompanying text; John F. Pfaff, *Prosecutorial Guidelines*, *in* 3 REFORMING CRIMINAL JUSTICE: PRETRIAL AND TRIAL PROCESSES 101, 114–17 (Erik Luna ed., 2017) (arguing that blinding charging and plea bargaining guidelines would ensure greater consistency in charging decisions and limit the impact of racial biases); Robert L. Misner, *Recasting Prosecutorial Discretion*, 86 J. CRIM. L & CRIMONOLOGY 717, 767–70 (1996) (arguing in favor of guidelines); David C. James, *The Prosecutor's Discretionary Screening and Charging Authority*, 29 PROSECUTOR 22, 22–23 (1995) (same); Vorenberg, *supra* note 4, at 1562–65; Norman Abrams, *Internal Policy: Guiding the Exercise of Prosecutorial Discretion*, 19 UCLA L. REV. 1, 35, 50–53 (1971) (same).

[192] One of the U.S. Sentencing Commission's stated motivations for guidelines was to remove the "irrelevant factor" of race from sentencing determinations. *See* U.S. SENT. COMM'N, GUIDELINES MANUAL § 5H1.10 (2021) (stating that race, among other factors, is "not relevant in the determination of a sentence").

[193] See *infra* Part IV.B.2 for a discussion of whether the recent offset of prior-conviction disparities is driven by prosecutors using race as a proxy for past discrimination.

[194] The algorithmic justice literature has advanced a similar argument about the unintended consequences of raceblindness. Scholars have shown, analytically and empirically, that race-aware algorithms "learn" to adjust the weights on characteristics for Black people relative to white people to account for past bias, thereby reducing disparities relative to algorithms that cannot use race. *See* Ashesh Rambachan & Jonathan Roth, Bias

Second, these policies will tend to reproduce disparities from the past. Although the degree of bias embedded in arrests and prior convictions is unobservable, the extent of racial disparities when defendants first enter the court system is undeniable. Black Americans are 2.5 times as likely as white Americans to be arrested and four times as likely to have a felony record.[195] Given these disparate inputs, race-neutral treatment of facially similar defendants would produce large disparities in sentencing outputs. To avoid entrenching disparities from the past, prosecutors would need to treat similar Black and white defendants *differently*.

Finally, regimes of colorblindness and formal equality may serve to whitewash disparities inherited from the past, signaling to prosecutors (and the public) that the outcomes of the race-blind process are fair—and thus that any ultimate disparities reflect real differences between Black and white defendants rather than bias. The survey findings highlight the implicit link between race neutrality and an acceptance of racial disparities as warranted: recall that the prosecutors who believe that prison disparities are caused by racial differences in criminal behavior are the ones who achieve formal equality in punishments.

2. The unintended impacts of an equal treatment mandate.

To make concrete the potentially counterproductive effects of colorblindness, imagine that the North Carolina state legislature passed a law requiring equal treatment for defendants who enter

In, Bias Out? Evaluating the Folk Wisdom 4–6 (2020) (First Symposium on the Foundations of Responsible Computing working paper) (proving that algorithms can reverse bias if training data are created from discriminatory decision-makers, and that the more discriminatory the human, the stronger the bias-reversal); Jon Kleinberg, Jens Ludwig, Sendhil Mullainathan & Ashesh Rambachan, *Algorithmic Fairness*, 108 AEA PAPERS & PROC. 22, 25–26 (2018) (finding that "blinding" algorithms to race increased disparities in college admissions).

Similarly, an experiment in France that removed information about job applicants' race increased racial disparities in interviews and hires. *See* Luc Behaghel, Bruno Crépon & Thomas Le Barbanchon, *Unintended Effects of Anonymous Résumés*, 7 AM. ECON. J.: APPLIED ECON. 1, 22–26 (2015). The authors explain that anonymizing resumes prevented firms from offsetting the lower qualifications of minority applicants. *Id.* Self-selection into the program (only 62% of qualifying firms opted in) also contributed to the results: the firms most eager to participate may have been most likely to offset disparities in qualifications. *Id.* at 18–20.

[195] For arrest counts by race, see FBI UNIFORM CRIME REPORTING PROGRAM DATA, U.S. DEP'T OF JUST., 2000–2016. I use census counts by race to scale arrest counts using IPUMS USA, *supra* note 7. For disparities in felony records, see generally Shannon, *supra* note 7. Disparities in North Carolina are comparably large. For more, see Figure E.1, Hannah Shaffer, Online Appendices, 76, https://perma.cc/MA26-JETG.

the system with similar charges and criminal records—or, equivalently, specifying a mechanistic formula that set punishment based solely on a defendant's arrest offense and criminal history. Since the post-arrest process in North Carolina has incarcerated Black defendants at lower rates than white defendants with equivalent arrests and prior records, this law would *significantly increase* prison disparities relative to those actually generated by the status quo system. Indeed, if such an equal treatment mandate had gone into effect in 2019, disparities in prison rates would have increased by 19.9% relative to the actual disparities that year, holding all else constant. In 2019, Black civilians in North Carolina were 3.8 times as likely as white civilians to be sentenced to prison. However, under the equal treatment regime, Black civilians would have been 4.6 times as likely to receive a prison sentence.[196] Figure E.10[197] illustrates the impacts of this law in each year from 2010 to 2019.

Almost the entirety of the policy's impact would have been borne by Black defendants with prior felony records—who, relative to Black defendants without records, already faced a heightened risk of prison if convicted of a new offense. If Black defendants in 2019 had been imprisoned at the same rate as current white defendants with similar arresting charges and priors, the post-arrest system would have incarcerated 696 more Black people with prior felony records in 2019—a 25.5% increase relative to the actual number.[198] For Black defendants without felony records, this equal treatment counterfactual would have had a much less dramatic effect, adding 59 (or 6.3%) more prison sentences.

Figure 7 illustrates the impact of an equal treatment regime on the number of Black people sentenced to prison in North Carolina between 2010 and 2019. It contrasts the number of Black people predicted to be sentenced to prison each year under a counterfactual in which Black defendants were incarcerated at equal

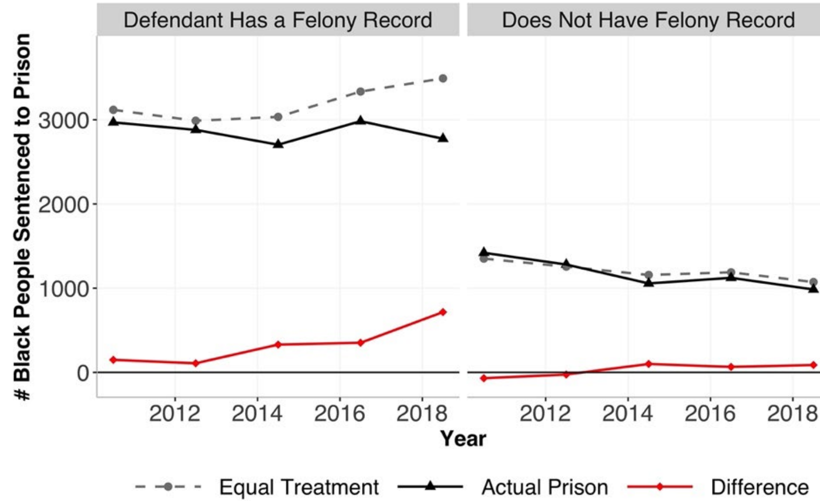
196 The statistic for the ratio of realized prison rates combines Census population counts with counts of prison sentences in the Superior Court records. IPUMs, *supra* note 7. The ratio of prison rates under the equal treatment mandate combines Census counts with the number of Black and white defendants predicted to receive a prison sentence based on average outcomes for all defendants with similar prior convictions and arrest charges. For North Carolina civilians who do not enter Superior Court, the predicted likelihood of prison is zero.

197 Hannah Shaffer, Online Appendices, 99, https://perma.cc/NWS8-3HSS.

198 In 2019, 2,729 Black people in North Carolina with felony records were sentenced to prison. While the *relative* impact of the equal treatment rule on disparities can be pinned down, its impact on the *absolute level* of prison rates depends on the particular implementation of the rule.

rates as current white defendants with similar arresting charges and prior convictions (in grey circles) with the actual number of Black people who received a prison sentence in each year (in black triangles). Two clear patterns emerge from the figure. First, the equal treatment regime's increase in the number of Black people sentenced to prison has steadily risen over the past decade. Second, the trend is entirely driven by Black defendants with prior felony convictions.

FIGURE 7: EQUAL TREATMENT POLICY: IMPACTS ON THE NUMBER OF BLACK PEOPLE SENTENCED TO PRISON



This figure considers the impact of a hypothetical regulation requiring Black defendants to receive the same punishments as facially similar white defendants. The figure contrasts the number of Black people who actually received a prison sentence in each year in North Carolina (in black triangles) with the number who would have received a prison sentence if Black defendants were incarcerated at equal rates as current white defendants with similar arresting charges and prior convictions who were sentenced in the same year (in grey circles). The red diamonds reflect the difference between the actual number and the predicted number under equal treatment. The left panel includes Black people with felony records and the right panel those without felony records.

Note that while the relative impact of an equal treatment rule on disparities can be pinned down—the mandate would have unambiguously increased disparities—the impact on the absolute level of prison rates depends on the particular implementation of the law. Figure 7 considers a counterfactual in which Black defendants were treated like current white defendants who appear similar in their cases files. Yet if the law had instead mandated that white defendants be treated like current, facially similar Black defendants (which is perhaps unlikely), the number of Black people sentenced to prison would not have changed. And if the law had mandated that all defendants be treated like the average facially similar defendant (which seems more likely), prison rates for Black defendants would have increased, but by 10.2% rather than 25.5%.

3. Which regulations risk increasing disparities?

All regulation of prosecutors would not equally entrench earlier disparities—or risk exacerbating status quo disparities.[199] While these risks principally apply to policies that colorblind prosecutors or eliminate inconsistency for facially similar defendants, even these policies would not necessarily lock in earlier disparities. A more systemic reform agenda that also targeted discretion earlier in the pipeline—by, for example, limiting police authority to stop civilians or reducing the centrality of prior convictions at sentencing—may reduce disparities. Targeted oversight of prosecutors that relied less on arrest charges and prior records to review prosecutors' decisions may also avoid reproducing past disparities.[200]

However, it is less obvious how to avoid privileging the police's authority over *whether* to make the initial stop and initiate an arrest. After all, those who are not arrested never enter the system and, by construction, are omitted from assessments of prosecutorial consistency. Moreover, it is difficult to imagine regulatory oversight of prosecutors not relying on arrests and priors, at least to some extent, to review their decisions. What case-specific, relevant, and easily observable input could regulators use to evaluate prosecutors apart from the defendant's arrest and prior record?

4. Generalizability.

The net effects of colorblinding prosecutors depend on prosecutors' decisions relative to decisions made at arrest and in past cases. Eliminating prosecutors' discretion to treat facially similar defendants differently would increase racial disparities if prosecutors were offsetting more disparities than they introduce but would decrease disparities if prosecutors were introducing more

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[199] Reforms that make it *uniformly* harder for prosecutors to negotiate severe punishments (or meet their burdens of proof) would not risk increasing disparities. Indeed, eliminating mandatory minimums—which would lower the "trial penalty" threat and so reduce prosecutorial leverage and expected punishments for defendants who qualify for the enhancement—may reduce sentencing disparities, depending on the composition of qualifying defendants and disparities in prosecutors' decisions to bring mandatory minimum charges.

Other ideas to limit prosecutorial discretion—such as Rachel Barkow's proposal to separate prosecutors' adjudication and investigative powers by dividing these functions across different prosecutors—similarly do not pose this risk. *See* Barkow, *supra* note 2, at 186–97.

[200] For instance, rather than using the specific offense grade selected by the arresting officer (e.g., assault with intent to kill), the relevant metric could be broader offense categories (e.g., assault), which would be less vulnerable to biased up-charging at arrest.

disparities than they offset. Since the impact is contingent on how current prosecutors compare to earlier actors in the system, this raises questions about the generalizability of the Article's findings.

Before assessing whether these findings likely generalize to contexts outside of North Carolina in recent years, it is worth noting that this Article does not aim to show that prosecutors *always* reduce racial disparities relative to those inherited from past decisionmakers. Instead, this Article seeks to demonstrate the possibility that prosecutors have this offsetting effect—and to consider how this possibility affects proposed policies to cabin their discretion.

There are several reasons why the findings in North Carolina may generalize to other states.[201] First, there is no reason to think that North Carolina police, prosecutors, defense attorneys, judges, or sentencing laws differ in critical ways from other states. For instance, police certification and district attorney selection in North Carolina are the same as in virtually all other states.[202] Police officers in North Carolina arrest civilians at comparable rates as law enforcement in other states.[203] And the prison rate among those convicted of a felony is also similar to other states.[204] While North Carolina's sentencing guidelines are particularly rigidly enforced, about a third of all states have sentencing

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[201] This Article's findings may not generalize to the federal system for several reasons. First, the selection mechanism for district attorneys and U.S. attorneys may generate differences in preferences and practices. Since district attorneys are elected, prosecutors in state courts may be more likely to internalize shifting views of racial bias. Second, career incentives of assistant district attorneys (ADAs) may differ from those of assistant U.S. attorneys (AUSAs). ADAs—particularly those who work their entire career as prosecutors—may be less focused than AUSAs on ensuring high conviction rates. Third, the training and qualifications of federal law enforcement differ considerably from those of state police.

[202] To become a police officer in North Carolina and almost all states, an applicant must obtain a certification from a state licensing entity called the Peace Officer Standards and Training Board. *See* RAYMOND A. FRANKLIN, MATHEW HICKMAN & MARC HILLER, U.S. DEP'T OF JUST., 2009 SURVEY OF POST AGENCIES REGARDING CERTIFICATION PRACTICE 18–19 (2009). However, North Carolina is one of five states that expressly forbids collective bargaining among police officers. *See* MILLA SANES & JOHN SCHMITT, CTR. ECON. & POL'Y RSCH., REGULATION OF PUBLIC SECTION COLLECTIVE BARGAINING IN THE STATES, 4 (2014). District attorneys are elected in North Carolina as in forty-six other states. George Coppolo, *States that Elect their Chief Prosecutors*, OLR RSCH. REPORT, tbl.1 (Feb. 23, 2003), https://perma.cc/5T62-A3MN.

[203] Over the last ten years, police have arrested 4.7% of North Carolinians and 3.7% of U.S. civilians in other states. UNIFORM CRIME REPORTS, *supra* note 51.

[204] Over the past decade in North Carolina, 37% of defendants in Superior Court convicted of a felony received a sentence in state prison and another 20% a local jail sentence, as compared to 41% and 28% across all state courts in 2006, ROSENMERKEL et al., *supra* note 52, at tbl.1.2.

guidelines and half have some structured component to sentencing.[205] Finally, unlike most states, North Carolina passed the Racial Justice Act in 2009, which commuted capital sentences of defendants who could prove that race was a significant factor in the decision to seek or impose the death penalty.[206] However, there was no significant shift in the disparate penalty for criminal records around 2009 or 2013, the year the Act was repealed, and it is, therefore, unlikely that this legislation caused the shift in the post-arrest system.[207]

Second, there is little reason to think that the trend in this Article's findings is unique to North Carolina. If a growing awareness of bias in policing and criminal courts has increasingly led prosecutors to question the credibility of Black defendants' prior convictions, it seems unlikely that this shift would be limited to North Carolina. Similarly, if the perspectives of new cohorts of line prosecutors have changed in recent years, it seems unlikely that this personnel shift would occur only in one state.

Third, the system's offset of disparities is present in rural and urban counties and conservative and liberal counties alike (see Table E.7).[208] In addition, conservative and liberal prosecutors as well as Black and white prosecutors have comparably smaller penalties for Black defendants' priors (see Table E.14[209] and E.15[210]). These patterns suggest that the findings are not limited to progressive prosecutors or strongholds of the progressive prosecutor movement. Instead, this consistency across heterogeneous jurisdictions and prosecutors suggests that a range of places and people may offset past disparities.

The findings likely do not reflect a transient, time-bound phenomenon driven by the increased salience of systemic racism and police bias. First, the increasing offset of disparities reflects a consistent change over time rather than a discontinuous jump in recent years (*see* Figures 3 and E.6).[211] Second, the trend in

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[205] Mitchell, *supra* note 66, at 36; Alison Lawrence, *Making Sense of Sentencing: State Systems and Policies*, NAT'L CONF. ST. LEGIS. 4–5 (2015).

[206] Gen. Assemb. of N.C., S.B. 461, 149th Leg., (N.C. 2009).

[207] *See supra* Part II.C.

[208] Hannah Shaffer, Online Appendices, 87, https://perma.cc/23YY-Y4VB.

[209] Hannah Shaffer, Online Appendices, 98, https://perma.cc/9ZZE-JYWF.

[210] Hannah Shaffer, Online Appendices, 100, https://perma.cc/F4AM-MVCK.

[211] *See* Hannah Shaffer, Online Appendices, 88, https://perma.cc/2JAN-LGTN. The same social forces that led to the burgeoning of the Black Lives Matter and progressive prosecutor movements may have led to the change in prosecutors' beliefs and response to past disparities. After all, although the salience of systemic discrimination and police bias skyrocketed in 2014, it was not zero in the years before.

prosecutors' offset of past disparities is not driven by a shift in the election of reform-minded district attorneys (*see supra* Part II.C.3; Table E.9[212]).

Although past scholarship has found that prosecutorial discretion increases—or does not significantly impact—racial disparities, many of these studies focus on earlier decades, the federal system, or differences between Black and white prosecutors.[213] An exception is a 2021 article by Chohlas-Wood, which studies racial disparities in state prosecutors' charging decisions in recent years and finds no evidence of disparate treatment—and therefore, perhaps unsurprisingly, that colorblinding prosecutors had no significant impact on disparities.[214]

Some recent findings are more in line with this Article's. Most relevantly, researcher J.J. Naddeo finds that state prosecutors from 2015 to 2020 in South Carolina reduce disparities in sentencing outcomes relative to those implied by disparities in arresting charges and criminal records.[215] Controlling for a rich set of case and defendant characteristics and leveraging the quasi-random assignment of cases to prosecutors, Naddeo finds that Black defendants receive shorter sentences and are more likely to have their cases dismissed relative to facially similar white individuals because prosecutors discount how prior convictions map into punishment.[216]

Professor Michael Light finds that Black-white sentencing gaps in the federal system fell significantly from 2009 to 2018 and

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212 Hannah Shaffer, Online Appendices, 91, https://perma.cc/JGE9-TBD3.

213 *See, e.g.*, Sloan, *supra* note 41, at 28 (finding white prosecutors were more likely to convict Black than white defendants of property misdemeanors, as compared to Black prosecutors in New York county from 2010 to 2011); Christopher Robertson, Shima Baradaran Baughman & Megan S. Wright, *Race and Class: A Randomized Experiment with Prosecutors*, 16 J. EMPIRICAL L. STUD. 807, 845–47 (2019) (finding no statistically significant racial bias in prosecutors' charging decisions in an experimental study); Sonja B. Starr et al., *supra* note 4, at 58–62 (finding federal prosecutors were more likely to charge Black defendants with mandatory minimums than facially similar white defendants from 2004 to 2009); Ulmer et al., *supra* note 41, at 440–46, 450 (finding no significant difference in Pennsylvania state prosecutors likelihood of imposing mandatory minimums for similar Black and white defendants in the late 1990s); Shermer et al., *supra* note 21, at 413–18 (finding Hispanic defendants in federal courts were 20pp less likely to receive reductions that white defendants).

214 *See* Chohlas-Wood et al., *supra* note 25, at 7.

215 J.J. Naddeo, Race, Criminal History, and Prosecutor Case Selection: Evidence from Southern U.S. Jurisdiction (2022) (working paper).

216 *See id.* at 25–31.

that this change was driven by shifts in prosecutors' use of mandatory minimums.[217] In a nationally representative sample of young men, Professor Erin Meyers finds that Black men were 29% less likely to be convicted than similar white men, conditional on arrest.[218] This disparity is concentrated in offense types where police have discretion to initiate arrests, which, according to Meyers, suggests that prosecutors are correcting for the over-arrest of Black men.[219]

B. Normative Implications

In this Section, I first discuss why this Article's findings cannot identify prosecutorial bias or whether the impacts of prosecutors' decisions move punishments closer to racially equal punishment of underlying criminal conduct. I then present suggestive evidence that Black defendants' priors are, in fact, inflated by past bias and therefore that the relatively smaller penalty for Black defendants' prior convictions is correcting for past bias.

Regardless of whether prosecutors' decisions correct for past bias *on average*, one might still object that a subset of prosecutors are unfairly relying on generalizations about a person's race in *individual* cases, thereby violating the Equal Protection Clause. Indeed, one interpretation of the survey results is that a subset of prosecutors are making decisions based on defendant race—using race as a factor in punishing prior convictions.[220] However, another possible interpretation is that the subset of prosecutors who are more attuned to potential racial bias also pay more attention to idiosyncratic differences in the prior convictions of Black and white defendants that are unobservable to the researcher. In this case, these prosecutors may not be relying on race at all in their

217 Michael T. Light, *The Declining Significance of Race in Criminal Sentencing: Evidence from US Federal Courts*, 100 SOC. FORCES 1110, 1120–28 (2022).

218 Erin E. Meyers, *Mass Criminalization and Racial Disparities in Conviction Rates*, 73 HASTINGS L.J. 1099, 1126 (2022).

219 *Id.* at 1127. Using state court felonies from seventy-five of the most populous US counties from 1990 to 1998, Professors Aleksandar Tomic and Jahn Hakes similarly find that Black arrestees are more likely to have criminal charges dismissed than similar white arrestees in cases where the arresting officer has more discretion. Aleksandar Tomic & Jahn K. Hakes, *Case Dismissed: Police Discretion and Racial Differences in Dismissals of Felony Charges*, 10 AM. L. & ECON. REV. 110, 138 (2008).

220 *See supra* Part III.B.3.

decision-making process. Given the multiple plausible explanations for these findings, the findings should not give rise to concerns under the Equal Protection Clause.[221]

[221] Under a common understanding of current Equal Protection Clause law, it is unlikely that a white plaintiff would have a cognizable equal protection claim for two reasons. First, the Supreme Court is generally deferential to individual prosecutorial decision-making, particularly in selective prosecution cases. *See* United States v. Armstrong, 517 U.S. 456, 465 (1996) (explaining that courts are "properly hesitant to examine the decision whether to prosecute," since prosecutorial factors such as the "strength of the case, the prosecution's general deterrence value, [and] the Government's enforcement priorities are not susceptible to a court's analysis" (quoting Wayte v. United States, 470 U.S. 598, 607–08 (1985)). In the leading selective prosecution case, *United States v. Armstrong*, the Supreme Court set a high bar to discovery from prosecutor's offices about their charging practices. *See id.* at 469. Although *Armstrong* is a case about discovery, selective prosecution doctrine remains underdeveloped, likely in part because the Court in *Armstrong* never reached the question of how to prove discriminatory intent, *see id.* at 470–71, and because of the perception that *Armstrong*—and the absence of successful claims in the nearly three decades since *Armstrong*—effectively foreclosed selective prosecution claims.

Second, and perhaps more importantly, courts are generally hostile to the use of statistical evidence to prove race-based intent, especially when the set of decision-relevant factors are not limited or objectively verifiable. *See* McCleskey v. Kemp, 481 U.S. 279, 293 (1987). The Court has not foreclosed the possibility of using statistics to prove intent. *See id.* at 293 (explaining that the Court accepts statistics as proof of discriminatory intent in certain limited contexts like jury selection). But many scholars have (perhaps incorrectly) interpreted *McCleskey v. Kemp* to bar courts from using statistics to prove discriminatory intent. *See* Andrew Crespo, *Systemic Facts: Toward Institutional Awareness in Criminal Courts,* 129 HARV. L. REV. 2049, 2097 n.210 (2016). Regardless of whether *McCleskey* actually bars the use of statistics to satisfy the intent prong, statistical evidence is unlikely to be sufficient if the challenged state action implicates (a) many (rather than few) factors, where it is difficult to isolate the causal relationship between race and decision-outcomes and (b) multiple groups of decisions-makers across different institutions (rather than specific decision-makers or a group of decision-makers within one institution). *See McCleskey*, 481 U.S. at 294–95.

This Article's analysis cannot cleanly identify individual (or subsets of) prosecutors who treat Black and white defendants differently because of their race. First, prosecutors' charging decisions and sentencing recommendations reflect "innumerable factors that vary according to the characteristics of the individual defendant and the facts of the particular [ ] offense." *Id.* at 294. Unlike in, for instance, jury selection decisions, the number of factors are not limited by state statute. Therefore, when presented with charging or sentencing race disparities, prosecutors could always point to a race-neutral reason for any estimated difference—such as the strength of the evidence, the constitutionality of police stops, or other aggravators or mitigators—for which a researcher could never fully account. In addition, this Article's findings do not isolate the decisions of prosecutors but instead implicate multiple groups of decision-makers. The aggregate findings in Part II likely reflect the discretion of defense attorneys and judges, in addition to prosecutors. While the survey findings in Part III do suggest that prosecutors are important drivers of the aggregate results, the survey findings could partly reflect that prosecutors with specific beliefs are more willing to cave to pressures from defense attorneys and judges to reduce charges for Black defendants. *See supra* Part III.B.3.b. Finally, the survey findings show an association between prosecutors' stated beliefs and case outcomes for many prosecutors across sixteen district attorney offices. In other words, the results show that certain prosecutor characteristics (for example, their stated beliefs elicited in the survey)

To be clear, I do not argue that we should rely on prosecutorial discretion to check systemic biases in the criminal process. If one could construct a system from the ground up, relying on prosecutors to check earlier bias would almost certainly be no one's ideal. Yet, as a theory of the second best, this prosecutorial check may be desirable. Given our status quo system of pervasive disparities, sweeping police powers, and a Court that is passive in checking disparate impacts, this prosecutorial check may be a practical way to prevent past disparities from being passed through to current and future cases.

1. The relativity of the results.

In recent years, the post-arrest system in North Carolina reduced disparities relative to a system in which Black and white defendants' priors were punished equally. Since defendant conduct and the degree of bias embedded in past discretion are not observable, these findings do not directly reveal whether the system moved sentencing outcomes closer to racially equal treatment of underlying conduct. If racial bias generated disparities in criminal records, then prosecutors who discounted the weight on Black defendants' priors were moving prison outcomes closer to racially equal punishment of underlying behavior. And if past disparities were entirely (or primarily) driven by bias, then prosecutors' recent offset was an insufficient corrective for past bias.[222] However, if disparities in criminal records were primarily driven by racial differences in conduct, then this offset moved prison outcomes farther from equal punishment of underlying conduct.[223] Put simply, one cannot adjudicate between these interpretations without knowing the degree of bias embedded in past arrests and convictions.

predict disparities in case outcomes, after aggregating across prosecutors' cases from multiple counties. The survey results do not identify any particular prosecutor—indeed, the analysis is underpowered, from a statistical perspective, to isolate anything for an individual. The survey results also do not isolate subsets of prosecutors in any particular county.

[222] In recent years, a Black North Carolinian is still approximately five times as likely to be incarcerated as a white North Carolinian. If disparities in criminal outcomes were entirely (or primarily) driven by bias, then a sufficient offset would require punishment outcomes to be the same (or close to the same) for Black and white defendants.

[223] In this case, equitable punishments may nonetheless require prosecutors to make compensating adjustments to the extent that racial differences in conduct are themselves driven by life opportunities that are shaped by bias.

Similarly, this Article's findings cannot reveal the extent of prosecutors' own racial biases. The fact that a subset of prosecutors reduced disparities is not itself proof that these prosecutors were not simultaneously introducing their own biases. Since the results reflect the disparities at sentencing relative to the disparities that prosecutors inherit, the results only tell us that these prosecutors offset more disparities than they introduced.

To see this, note that a prosecutor's equal treatment of facially similar Black and white defendants does not necessarily imply that she is not racially biased. Imagine that police, prosecutors, defense attorneys, and judges all share the same amount of anti-Black bias. In this hypothetical, prosecutors would have no reason to differentially adjust Black defendants' arresting charges or differentially question the signal value of Black defendants' prior records. After all, prosecutors would simply agree with the biased decisions made by police and past decision-makers and so would pass through past bias to current punishments. Therefore, in this stylized example, a researcher would find no disparity in prosecutors' treatment of Black and white defendants with similar case files.

A prosecutor who treats facially similar Black and white defendants similarly may also be engaging in biased decision-making by failing to attend to earlier bias in policing and the post-arrest process. Therefore, an important component of prosecutorial bias may be a prosecutor's unawareness of past bias or failure to account for it in her current decisions.

To the extent that prosecutors are offsetting the bias of past prosecutors, it may seem that recent prosecutors who continue to offset past disparities are making dynamically inconsistent decisions—in essence, double correcting by offsetting disparities from past cases that past prosecutors have *already* offset. As just discussed, it is possible that these recent prosecutors are overcorrecting. However, this dynamic inconsistency logic does not necessarily apply to these recent prosecutors. Until such time when no criminal records embed any past bias, current prosecutors' continued offsets would not necessarily be an overcorrection. Indeed, it seems unlikely that the system has reached the point where the legacy of discrimination has been entirely washed out. Only a subset of current prosecutors offset past disparities. The rest continue to pass through past disparities to current punishments. In addition, the system has not always offset disparities. Before

2010, it reproduced past disparities. Finally, and more fundamentally, prosecutors who do offset disparities may not have offset enough to make up for the full extent of past bias, which would include any past prosecutors' failure to offset police bias in past arrests.

2. Suggestive evidence of equity and efficiency gains.

In theory, racial disparities in arrests and criminal records may accurately reflect differences in underlying criminal conduct. However, given the mounting evidence of racial bias in policing and later stages of the criminal process, arrest and conviction disparities are likely larger than behavioral disparities.[224] For drug possession in particular, there is a wealth of empirical evidence that disparities in criminal outcomes do not reflect racial differences in drug use.[225] And comparing self-reported crime rates to arrest rates, Professor Ben Grunwald finds that criminal records are racially biased across a broad swath of criminal behavior.[226] This Section provides additional evidence about the extent to which disparities in criminal records reflect bias versus differences in criminal conduct. I assess whether prior convictions are more or less predictive of rearrest for white defendants relative to Black defendants.[227] To see the logic of this analysis, first note that rearrest is a noisy signal of underlying criminal conduct. Therefore, if prior convictions themselves reflect underlying crim-

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[224] *See supra* note 76 and accompanying text.

[225] For instance, Black civilians in North Carolina are nine times as likely to be arrested for felony drug possession than white civilians even though Black and white North Carolinians report similar rates of drug use. *See supra* note 77 and accompanying text. *See also, e.g.*, KAREN E. FIELDS & BARBARA J. FIELDS, RACECRAFT: THE SOUL OF INEQUALITY IN AMERICAN LIFE 265 (2012) ("While [Black civilians] accounted for 14 percent of [U.S.] drug users . . . in 2006, they accounted for 35 percent of those arrested for drug offenses, 53 percent of those convicted, and 45 percent of those in prison for drug offenses as of 2004."); Ojmarrh Mitchell & Michael S. Caudy, *Examining Racial Disparities in Drug Arrests*, 32 JUST. Q. 288, 309–10 (2015) (finding roughly 85% of Black people's higher probability of drug arrest are not attributable to differences in drug use, drug sales, nondrug offending, or neighborhood context); Katherine Beckett, Kris Nyrop, Lori Pfingst & Melissa Bowen, *Drug Use, Drug Possession Arrests, and the Question of Race: Lessons from Seattle*, 52 SOC. PROBS. 419, 426–29 (2005) (comparing drug use data with arrest statistics and finding racial disparities between arrestees and users).

[226] *See* Grunwald, *supra* note 78, at 31.

[227] I define rearrest as a new case in Superior Court, excluding probation violations, within five years of the disposition date of the current case. For this reason, the analysis uses cases from 2010 to 2014. The results are robust to using one- and three-year windows for rearrest outcomes.

inality, then one would expect that a more extensive criminal record would predict an increase in the likelihood of rearrest. Given this logic, if the prior records of Black and white defendants are equally predictive of rearrest, this would suggest that prior records are racially unbiased signals and that disparities in prior records may reflect differences in criminal conduct. However, if prior records are less predictive of rearrest for Black than white defendants, this would suggest that Black defendants' priors are relatively weaker signals of underlying criminality and thus inflated by past bias. In this case, placing less weight on Black defendants' priors would move sentences closer to racially equal punishment of underlying conduct.

One objective of prison is to incapacitate defendants who are most likely to reoffend, particularly when victims are involved. Given this objective, efficient penalties for prior convictions should track their ability to predict defendant reoffense. Therefore, if Black defendants' priors are relatively less predictive of future arrest, this would also suggest that the smaller penalty for Black defendants' priors has increased efficiency in punishment outcomes.

a) Aggregate results and limitations. The prior convictions of Black defendants are significantly *less* predictive of rearrest than those of white defendants. In fact, having an additional low-level felony conviction has almost double the predictive power for future arrest for white defendants relative to Black defendants.[228] This significant difference persists after accounting for defendant age and gender, the crime type and year of the current offense, the district attorney office and crime unit handling the current case, and the arrest charge and specific composition of the defendant's prior record.[229] An additional low-level felony conviction is associated with a 3.4pp increase in a Black defendant's probability of rearrest within five years of the current case's resolution, and the increase is 1.4pp (41%) larger for facially similar white

[228] For more, see Table E.17 column 1, Hannah Shaffer, Online Appendices, 104, https://perma.cc/W37Y-9P54. This analysis measures rearrest within five years of the current case's resolution. Results are similar when using a window of three years.

[229] For more, see Table E.17 columns 3–6, Hannah Shaffer, Online Appendices, 104, https://perma.cc/W37Y-9P54. The prior-record composition controls are fixed effects for the number of prior felonies in each offense class of the state sentence guidelines (# Class E Prior Convictions x # Class F Prior Convictions x . . .) and the number of prior felonies within twelve broad offense type (# Larceny Prior Convictions x # Kidnapping Prior Convictions x . . .).

defendants.[230] These results suggest that prior convictions are weaker predictors of future criminal conduct for Black than white defendants.

There are several important limitations to this analysis. First, and most importantly, rearrests, like criminal records, are themselves biased measures of criminal conduct. Therefore, rearrests are far from the ideal measure to benchmark the degree of bias reflected in prior-record disparities. However, bias in rearrest would not distort the analysis if it impacted Black defendants equally—if, for instance, Black civilians were more likely to be stopped by the police across the board.[231] But if Black people with long records are particularly likely to encounter future bias, this would distort the analysis, leading priors to be more predictive of rearrest for Black than white defendants.[232] Note, however, that if racial bias in rearrest were more acute for Black defendants with longer rather than shorter records, the fact that Black defendants' priors are nonetheless weaker predictors of rearrest provides even stronger evidence that Black defendants' priors are weaker signals of future criminal conduct.

Given the potential distortions from police bias, the following Section separately considers rearrests for property, sex, and violent offenses—where the arrest was likely initiated by a victim or witness—and rearrests for drug and weapon possession offenses—

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[230] For more, see Table E.17 column 3 (95% CI = [0.75, 1.85]), Hannah Shaffer, Online Appendices, 104, https://perma.cc/W37Y-9P54. As expected, Black defendants' priors relative to white defendants' priors are even less predictive of rearrest after restricting to the 78% of defendants who are not incarcerated, although the results are qualitatively similar. For more, see Table E.17 columns 2, 4, and 6, Hannah Shaffer, Online Appendices, 104, https://perma.cc/W37Y-9P54.

[231] Specifically, if bias-inflated rearrest rates for all Black people by a constant percentage point gap, this would not alter the disparate relationship between priors and rearrest. Alternatively, if police bias led to a percent increase in rearrest for Black people relative to white people, this would inflate the relationship between priors and rearrest for Black relative to white defendants.

[232] Black defendants with longer records may encounter more police bias in the future than those with shorter records since people may accumulate longer records precisely because they live in more heavily policed neighborhoods. In short, a long record may itself signal a heightened exposure to past and future bias.

where the rearrest was more likely initiated by a police stop.[233] Victim-initiated rearrests may yield less distorted estimates.[234]

The "incapacitation effect"—the fact that defendants cannot be rearrested while in prison—introduces a second complication to this analysis. Rearrest rates are mechanically lower among those sentenced to prison.[235] Since Black people with criminal records are less likely to be incarcerated than white defendants in North Carolina, this means that rearrest rates for Black defendants with records are mechanically higher than white defendants. To the extent that prison time causally impacts a person's propensity to commit a crime, racial disparities in prison rates among defendants with records would also distort the results. The analysis therefore considers robustness to restricting to the 78% of cases in which the defendant is not incarcerated.[236]

b) Police-initiated versus witness-initiated rearrest. The weaker predictiveness of Black defendants' priors is almost entirely driven by witness-initiated rearrests, as shown in Figure 8 and Table E.18.[237] Prior convictions are significantly stronger predictors of witness rearrest for white than Black defendants.[238] Perhaps most strikingly, the absolute level of witness rearrest rates

[233] To reduce potential distortions from police bias, it may be natural to restrict to arrests that result in convictions, which would eliminate arrests with clearly unsubstantiated charges. However, this more restricted measure introduces a new problem. Since the post-arrest system has been less likely to convict Black than white defendants with long priors, using reconviction would mechanically decrease the predictiveness of Black defendants' priors relative to white defendants' priors.

[234] Victim-initiated rearrests are also not the ideal benchmark to measure the true relationship between priors and criminal conduct since there may be racial differences in the propensity to report crimes to the police.

[235] Rearrest rates within one year of conviction are 64% lower among defendants who receive an incarceration sentence of at least six months, and 28% lower within five years of conviction. I omit the rare cases of people who are prosecuted in North Carolina Superior Court for crimes committed in prison.

[236] Restricting to defendants who are not incarcerated eliminates the incapacitation distortion but simultaneously introduces a new distortion: it introduces selection bias since the post-arrest system may choose prison sentences based on risk of reoffense differently for Black and white defendants.

[237] Hannah Shaffer, Online Appendices, 105, https://perma.cc/4LX5-Y2FN.

[238] The increase for each additional low-level felony conviction was .65pp larger for white than Black defendants with similar arrests, prior convictions, and demographics, whose cases were handled in the same office and year. (95% CI = [.28, 1.02]). For more, see Table E.18 column 4, Hannah Shaffer, Online Appendices, 105, https://perma.cc/4LX5-Y2FN.

are significantly lower for Black than facially similar white defendants with criminal records.[239] Among white defendants, witness-rearrest rates significantly increase as they accumulate more prior convictions. Yet among Black defendants, witness-rearrest rates are virtually unchanged as they accumulate more priors after one low-level felony conviction.[240] In sharp contrast, police-initiated rearrest rates are higher for Black defendants relative to white defendants across the board—and thus prior convictions do not meaningfully differ by race in their ability to predict police rearrest.

If Black defendants' priors are inflated by police bias, one would expect prior convictions resulting from police stops to be particularly strong predictors of rearrest for white defendants relative to Black defendants, as compared to prior convictions resulting from a witness report to the police. To test this prediction, Table E.19[241] considers whether prior convictions likely initiated by the police predict rearrest disparities differently than priors likely initiated by witnesses. Across all specifications, police-initiated priors are significantly stronger predictors of rearrest for white than Black defendants (Table E.19[242] row 1). By contrast, disparities in the predictiveness of witness priors are smaller, especially after introducing defendant and case controls (Table E.19[243] row 2). Also consistent with police-initiated priors reflecting more bias and witness-initiated rearrest reflecting less bias, the disparate predictiveness of *police-initiated priors* is consistently the most pronounced for *witness-initiated rearrest* (Table E.19[244] row 1).

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239 Rates of witness rearrest are similar for facially similar white and Black defendants without records. See the bottom right panel in Figure 8.

240 These patterns persist when restricting comparisons to facially similar defendants (*see* Panel B of Figure 8 and even columns in Table E.18, Hannah Shaffer, Online Appendices, 105, https://perma.cc/4LX5-Y2FN) and when restricting to the 78% of defendants who are not incarcerated (*see* Figure E.11, Hannah Shaffer, Online Appendices, 102, https://perma.cc/E2YX-PCGW, and the last column in Table E.18, Hannah Shaffer, Online Appendices, 105, https://perma.cc/4LX5-Y2FN).

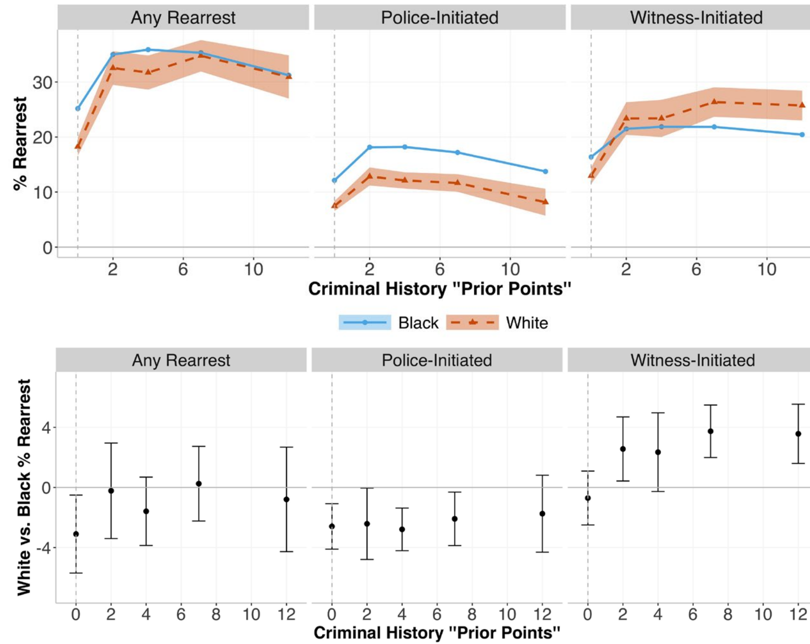
241 Hannah Shaffer, Online Appendices, 106, https://perma.cc/HV4R-E2E7.

242 *Id.*

243 *Id.*

244 *Id.*

FIGURE 8: PRIOR CONVICTIONS AND REARREST DISPARITIES



These panels depict racial disparities in the relationship between prior convictions and rearrest rates for all defendants. Figure E.11 depicts this relationship for the 78% of defendants who are not incarcerated and therefore are not incapacitated. *See* Hannah Shaffer, Online Appendices, 102, https://perma.cc/E2YX-PCGW. The top figure traces the raw relationship between priors and rearrest rates within five years of the current case for any offense (Any Rearrest panel), drug and weapon possession offenses (Police-Initiated panel) and property, violent, and sex offenses (Witness-Initiated panel) from 2010 to 2014. The sample for this analysis does not include the last five years to allow for a five-year window to measure rearrest for all cases. The leftmost points reflect defendants without felony records, and the other four points reflect quartiles of prior points for those with records. The bottom figure shows the disparity in rearrest for defendants of the same gender and age with similar priors and current offenses in the same year handled by the same district attorney office. Each point reflects the percentage point difference between white and Black rearrest rates among defendants within a given prior-point quantile. The black bars reflect the 95% confidence interval of white relative to Black rearrest rates. Standard errors are clustered by elected district attorney.

Taken together, these analyses suggest that criminal records are actually less informative of criminal conduct for Black than white defendants—and that the smaller penalty for Black defendants' prior convictions has increased equity and efficiency.

These findings also provide empirical support for the algorithmic justice literature that finds "race-aware algorithms" can

reduce disparities and increase efficiency relative to race-blind algorithms.[245] If a machine learning algorithm predicted rearrest in North Carolina using criminal records, allowing the machine to use defendant race would enable it to learn to put a lower, more accurate, weight on the prior convictions of Black defendants. But if the machine could not use defendant race, it would be forced to use the same weight for Black and white defendants' priors. This equal weight would inflate the predicted probability of rearrest relative to the truth for Black defendants relative to white defendants with criminal records.

C. Implications for Progressive Prosecution

Racial justice advocates have invested heavily in electing district attorneys who promise reform.[246] Recent scholarship and media coverage on progressive prosecution have also principally focused on elections of reform-minded district attorneys and their policy platforms.[247] Professor Angela J. Davis sums up the prevailing view: "We must change the current model of prosecution and that change will only happen if good, progressive people run for . . . District Attorney."[248]

Yet this preoccupation with elections misses a big opportunity. Although there has been a pronounced decrease in disparities over the past decade in North Carolina state courts, the election of reform-minded district attorneys cannot explain this trend.[249] Rather than stemming from newly elected head prosecutors, it was

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[245] *See supra* note 194 and accompanying text.

[246] *See, e.g.*, Paige St. John & Abbie Vansickle, *Here's Why George Soros, Liberal Groups Are Spending Big to Help Decide Who's Your Next D.A.*, L.A. TIMES (May 23, 2018), https://perma.cc/L4EE-3JJW; Daniel Marans, Black Activist Starts Group That Aims to Elect Progressive Prosecutors, HUFFINGTON POST (Feb. 15, 2018), https://perma.cc/9GYD-ZSYJ; *The Power of Prosecutors*, ACLU, https://perma.cc/VXJ6-6CPE (informing the public about the importance of district attorney elections through a video series).

[247] *See generally, e.g.*, Angela J. Davis, *Reimagining Prosecution: A Growing Progressive Movement*, 3 UCLA CRIM. JUST. L. REV. 1 (2019); EMILY BAZELON, CHARGED: THE NEW MOVEMENT TO TRANSFORM AMERICAN PROSECUTION AND END MASS INCARCERATION (2019); Mark Berman, *These Prosecutors Won Office Vowing to Fight the System. Now, the System Is Fighting Back.*, WASH. POST (Nov. 9, 2019), https://perma.cc/NN6X-99C7; Emily Bazelon & Miriam Krinsky, *There's a Wave of New Prosecutors. And They Mean Justice.*, N.Y. TIMES (Dec. 11, 2018), https://perma.cc/9QJX-KWQH; David Alan Sklansky, *The Progressive Prosecutor's Handbook*, 50 U.C. DAVIS L. REV. ONLINE 25 (2017).

[248] Angela J. Davis, *The Progressive Prosecutor: An Imperative for Criminal Justice Reform*, 87 FORDHAM L. REV. ONLINE 8, 10 (2018).

[249] *See supra* Part II.C.3. Since the turn toward electing progressive district attorneys in North Carolina only began in the most recent election cycle, the non-effect of newly elected district attorneys on the trend is perhaps unsurprising.

likely the everyday decisions of line prosecutors that drove this trend.[250] This suggests that the election of reform-minded district attorneys may not be necessary to achieve significant change—and that line prosecutors may be just as critical as district attorneys to the project of reducing disparities.

Evidence from the 2020 survey supports the idea that the perspectives of line prosecutors have changed in recent years. Recent prosecutor cohorts are more likely to indicate that they are liberal and, particularly after 2015, are more likely to indicate that racial bias rather than disparate conduct explains racial disparities in sentencing.[251] In addition to the rise of progressive social movements, it may be that a shift in emphasis in criminal law courses—and the way we talk about prosecutors—has affected the pool of those entering prosecution.

Young progressive lawyers considering careers as prosecutors are often cautioned to work only in offices run by progressive district attorneys if they want to make a difference.[252] However, this caution may be overblown. This Article's findings suggest that a new lawyer need not work for district attorneys like Larry Krasner, George Gascón, or Rachel Rollins to make a difference. Indeed, rank-and-file line prosecutors across the state of North Carolina—in urban and rural and in liberal and conservative counties alike—had similar impacts on narrowing racial disparities over the past decade.[253]

CONCLUSION

For criminal justice advocates who aim to reduce racial disparities in sentencing outcomes, this Article provides evidence that it may be more effective to harness prosecutorial discretion than to regulate or eliminate it. Especially for those concerned about the disparate impacts of sweeping police powers to stop and

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250 The time series results may also be driven by trends in pressure from judges and defense attorneys. *See supra* Part III.B.3.b.

251 *See* Figure 6.

252 *See, e.g.*, David E. Patton, *A Defender's Take on "Good" Prosecutors*, 87 FORDHAM L. REV. ONLINE 20, 23 (2018) (cautioning "the reformist camp" considering a career as a prosecutor that most young lawyers are unlikely to "join offices with true reformists at the top"); Ellen Yaroshefsky, *Can a Good Person Be a Good Prosecutor?*, 87 FORDHAM L. REV. ONLINE 35, 38 (2018) (expressing doubts about being a progressive prosecutor in the "typical case processing office").

253 The smaller penalty for Black defendants' prior convictions is similar across political and urban-rural divides. *See* Table E.7, Hannah Shaffer, Online Appendices, 87, https://perma.cc/23YY-Y4VB.

arrest civilians, these findings counsel caution in colorblinding prosecutors, which may lock in the impacts of police discretion. As critical race theorists have long emphasized, colorblindness cannot eliminate the deeper structural problems of racism—and eliminating racism today cannot erase disparities from the past that will continue to impact defendants in the future.

The Article's findings also sound a note of optimism for the future. There is new blood in prosecution, perhaps in part due to the rise of the Black Lives Matter movement and a shift in the way we talk about prosecutors in law school classes. These younger prosecutors may be a positive force in reducing racial disparities in future years.