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RACIAL BIAS AND PRISON DISCIPLINE: A STUDY OF NORTH CAROLINA STATE PRISONS

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Black and Indigenous people receive disproportionate disciplinary write-ups in the North Carolina state prison system. As a result, incarcerated Black and Indigenous people are more likely than their white counterparts to experience disciplinary sanctions, including solitary confinement.

In this Article, I analyze data from the North Carolina Department of Public Safety. I employ two statistical techniques—binary logistic regression and multiple linear regression—to explore racial disparities in the disciplinary process. I consider disparities in overall disciplinary outcomes and disparities at several discrete moments in the disciplinary process. I show that, holding other variables constant, a Black person incarcerated in North Carolina was 10.3% more likely than a similarly situated white person to receive at least one disciplinary write-up in 2020. An Indigenous person was 13% more likely than a white person to receive a write-up. On the other hand, Latinx people and people of other races were less likely than white people to receive write-ups. Because Black and Indigenous people received disproportionate write-ups, they also received disproportionate sanctions. For example, relative to white people, Black people were 8% more likely and Indigenous people 23% more likely to be subjected to disciplinary segregation—a punitive form of solitary confinement. Explicit and implicit racial biases likely explain these disparities.

These findings support several recommendations from the landmark 2020 report by the North Carolina Task Force for Racial Equity in Criminal Justice. The Task Force advocated reforming the prison system's handling of alleged disciplinary infractions. The proposed reforms would mitigate bias in the prison-discipline process and in adjacent processes like parole review. While these reforms are not perfect antidotes to racial bias, they would promote equity within the prison system. The present analysis

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suggests that the North Carolina Department of Public Safety—and, where legislative changes are necessary, the North Carolina General Assembly—should adopt, fund, and implement the proposed reforms.

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INTRODUCTION

In 2020, correctional officers in the North Carolina state prison system issued over 82,000 disciplinary write-ups to nearly 23,000 incarcerated people.¹ Black and Indigenous people received disproportionate shares of these write-ups.²

That same year, following the death of George Floyd, North Carolina Governor Roy Cooper convened the North Carolina Task Force for Racial Equity in Criminal Justice (“Task Force”).³ The Task Force prepared a suite of recommendations intended to combat racial inequality at all levels of the state’s criminal legal system. Several of the 125 proposals contemplated prison discipline and the consequences of disciplinary infractions.⁴

Receiving a disciplinary infraction can change an incarcerated person’s experience in prison in many ways. The prison may subject the person to disciplinary segregation⁵—a punitive form of solitary confinement⁶—or assign additional work duties.⁷ Moreover, following an infraction, the prison system may move someone to a more restrictive custody level, such as from minimum to medium custody or from medium to close custody.⁸ The prison may revoke the person’s so-called “privileges,”⁹ including the opportunities to make phone calls, receive visits from loved ones, visit the prison canteen, and withdraw funds to spend on food and other discretionary items.¹⁰

Furthermore, a disciplinary infraction may prolong a person’s sentence. People may lose sentence credits, like “gain time” or “good time,” thereby

1. N.C. DEP’T OF PUB. SAFETY, INMT9CF1 (2021), <https://webapps.doc.state.nc.us/opi/downloads.do?method=view> (last visited Apr. 6, 2021).

2. *See infra* p. 8, Table 1 (showing distribution of write-ups across racial groups).

3. N.C. TASK FORCE FOR RACIAL EQUITY IN CRIMINAL JUSTICE, REPORT 2020, at 4, 8 (2020), https://ncdoj.gov/wp-content/uploads/2020/12/TRECReportFinal_12132020.pdf [hereinafter TASK FORCE].

4. *Id.* at 117–23.

5. N.C. DEP’T OF PUB. SAFETY, HANDBOOK FOR FRIENDS AND FAMILIES OF OFFENDERS, at 54 (2020), https://files.nc.gov/ncdps/documents/files/Prisons_FamilyFriends-Handbook_FINAL_EN_web.pdf.

6. Kirsten Weir, *Alone*, in *‘The Hole’: Psychologists Probe the Mental Health Effects of Solitary Confinement*, 43 MONITOR ON PSYCH. (May 2012), <https://www.apa.org/monitor/2012/05/solitary> (“Two types of solitary confinement are commonly in use today. The first, known as disciplinary segregation, is leveled as punishment when inmates break the rules.”).

7. N.C. DEP’T OF PUB. SAFETY, *supra* note 5, at 54.

8. *Id.*

9. *Id.* Although the prison system refers to these as privileges, it is more appropriate to think of them as rights. *See* A JAILHOUSE LAWYER’S MANUAL 642 (12th ed., 2020) (describing communication with friends and family members as a right).

10. N.C. DEP’T OF PUB. SAFETY, *supra* note 5, at 54.

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extending the term of incarceration.¹¹ The precise effect on a person’s sentence varies according to the applicable sentencing regime.¹²

Finally, disciplinary infractions may limit an incarcerated person’s chances of being released from prison early. The North Carolina Parole Commission (“Parole Commission”)—the body that decides whether to release parole-eligible people—considers disciplinary infractions in both direct and indirect ways. First, Parole Commissioners in North Carolina examine people’s disciplinary records¹³ and may be less likely to grant relief to candidates who have infractions on those records. Second, the Parole Commission rarely offers parole to anyone outside of a minimum-security facility.¹⁴ Therefore, a disciplinary infraction may indirectly reduce someone’s chances of being granted parole when the infraction leads to their being moved out of a minimum-security facility—or never reaching one in the first place.

Similarly, North Carolina’s newly established Juvenile Sentence Review Board (“Review Board”) considers infractions in ways that parallel the Parole Commission’s analysis. Upon forming the Review Board, Governor Cooper directed its members to consider infraction records when deciding whether to grant clemency and commutation to people who were convicted and sentenced in adult criminal court as children.¹⁵ A candidate petitioning before the Review Board may be less likely to receive relief when their record shows several infractions. In this way, parole review and review by the Juvenile Sentence Review Board are likely to reproduce any racial disparities introduced during the infractions process.

Social scientists have demonstrated that there is a relationship between race and disciplinary infractions in prison.¹⁶ But previous researchers have

11. *Id.* at 54, 61.

12. N.C. DEP’T OF PUB. SAFETY, SENTENCE CREDITS POLICY AND PROCEDURE, at 2 (2018), https://files.nc.gov/ncdps/B.0100_08_10_18_Final%20post%208-13-2018.pdf.

13. John M. Memory et al., *Comparing Disciplinary Infraction Rates of North Carolina Fair Sentencing and Structured Sentencing Inmates: A Natural Experiment*, 79 THE PRISON J. 45, 51 (1999) (“We have confirmed that North Carolina parole officials consider the disciplinary records of inmates in making parole decisions.”).

14. *Id.* at 50–51 (“[I]nmates not in minimum-security facilities rarely are granted parole[.]”).

15. N.C. Exec. Order No. 208, at 3 (Apr. 8, 2021), <https://files.nc.gov/governor/documents/files/EO208-Juvenile-Sentence-Review-Board.pdf>, (“[T]he Review Board shall consider . . . [t]he petitioner’s prison record[.]”).

16. See, e.g., Jon Sorensen et al., *Patterns of Rule-Violating Behaviors and Adjustment to Incarceration among Murderers*, 78 THE PRISON J. 222, 226 (1998); Liqun Cao et al., *Prison Disciplinary Tickets: A Test of the Deprivation and Importation Models*, 25 J. CRIM. JUST. 103, 111 (1997); Beth Huebner, *Administrative Determinants of Inmate Violence: A Multilevel Analysis*, 31 J. CRIM. JUST. 107, 114 (2003); Heidi S. Bonner et al., *Race, Ethnicity, and Prison Disciplinary Misconduct*, 15 J. ETHNICITY CRIM. JUST. 36, 46 (2017); Kristen Bell, *A Stone of Hope: Legal and Empirical Analysis of California Juvenile Lifer Parole Decisions*, 54 HARV. C.R.-C.L. L. REV. 455, 486 n.144; Bridget Brew, *The Keepers and the Kept: Three Essays Investigating the Importance of Race During Confinement*,

tended to interpret such findings as evidence that some racial groups are more likely to break prison rules than others.¹⁷ Those analyses—unlike this one—often failed to consider the role that racial bias plays.

Previous studies are also limited in that many researchers used only white and Black¹⁸ or white and non-white¹⁹ as categories for analysis. The analysis I present in this Article is the first published investigation of North Carolina infractions data that considers Indigenous and Latinx as categories distinct from Black, white, and other.²⁰ It is also the first published analysis of North Carolina infractions data from within the last five years.²¹

Finally, earlier research generally considered only the relationship between race and initial disciplinary write-ups.²² In contrast, the present analysis considers both disparities in overall outcomes and disparities at various moments in the process: when prison staff issue write-ups, when people decide whether to plead guilty to write-ups, when officers reach decisions during disciplinary hearings, when the Commissioner of Prisons considers appeals, and when the prison administers sanctions. Isolating each level in this manner helps identify the precise moment or moments when disparities are introduced. This knowledge could allow policymakers to design interventions that target those specific moments.

In Part One of this Article, I provide an overview of the discipline system in North Carolina state prisons. I divide the process into four stages: (1) write-ups, (2) hearings, (3) appeals, and (4) sanctions. In Part Two, I investigate how race and other variables explain how the disciplinary process proceeds, stage by stage. I use data from the North Carolina Department of

unpublished PhD Dissertation, at 2–3 (2019), https://ecommons.cornell.edu/bitstream/handle/1813/67226/Brew_cornellgrad_0058F_11438.pdf?sequence=1&isAllowed=y.

17. See, e.g., Sorensen et al., *supra* note 16, at 229–30 (“Young Blacks violate prison rules most often[.]”); Huebner, *supra* note 16, at 114 (“It is evident from the models that African Americans have an increased inclination toward inmate violence[.]”); Bonner et al., *supra* note 16, at 43 (“Blacks committed rule violations at a significantly higher rate than Whites[.]”).

18. I have capitalized the words Black, Latinx, and Indigenous where they appear throughout this piece, but I have not capitalized the word white. My capitalization decisions follow guidance from the Associated Press Stylebook. *Explaining AP Style on Black and White*, AP NEWS (July 20, 2020), <https://apnews.com/article/archive-race-and-ethnicity-9105661462>; see also Nancy Coleman, *Why We’re Capitalizing Black*, N.Y. TIMES (July 5, 2020), <https://www.nytimes.com/2020/07/05/insider/capitalized-black.html> (explaining that the capitalization of the word “white” is a practice associated with racist hate groups).

19. E.g., Sorensen et al., *supra* note 16, at 228; Cao et al., *supra* note 16, at 108.

20. The data did not allow me to consider “Asian” as a category distinct from “other” because the low number of Asian incarcerated people did not yield statistically significant results independently.

21. Researcher Bridget Brew analyzed N.C. infractions data from 1980 to 2016. Brew, *supra* note 16, at 2–3 (finding that Black people received more infractions than their white counterparts).

22. One exception to this is Bridget Brew’s examination of the relationships at three levels: receipt of infractions, guilty verdicts, and sanctions. Brew, *supra* note 16, at 43, 54, 56.

Public Safety (DPS). I employ binary logistic regression and multiple linear regression—statistical techniques that control for other variables to determine the effect of one variable (in this instance, race) on the likelihood of an outcome (disciplinary infractions). I demonstrate that Black and Indigenous people were more likely than their white counterparts to receive write-ups in 2020. As a result, Black and Indigenous people were more likely to receive all manner of sanctions. In Part Three, I caution against inferring from these findings that different racial groups break prison rules at different rates. I offer two alternative explanations for these disparities: explicit racial bias and implicit racial bias. I consider how earlier research about implicit bias in the school, policing, and courtroom contexts may illuminate the disparities I identify in this Article. Finally, in Part Four, I argue that the present analysis supports several of the Task Force’s recommendations involving prison discipline and parole.

I. THE N.C. PRISON-DISCIPLINE PROCESS²³

The chart below explains the stages of the disciplinary process in North Carolina state prisons. Please note that the DPS data suggest considerable variation in how cases progress through the disciplinary process. Therefore, this overview should be read as a general outline to which there are exceptions, not as a strict procedure followed in every case.

Stage 1: Unit Write-Up	<ul style="list-style-type: none"> Prison staff or another person report suspected rule breaking. The prison may investigate. The supervisor decides whether disciplinary action is appropriate and may issue a formal report. Prison staff present the incarcerated person with the charges, and the incarcerated person may plead guilty or not guilty.
Stage 2: Disciplinary Hearing	<p><u>Plea of not guilty:</u></p> <ul style="list-style-type: none"> The incarcerated person appears before a disciplinary-hearing officer (DHO). The DHO decides whether to find someone guilty, find them not guilty, order a reinvestigation, or dismiss the charges. If the DHO finds someone guilty, the DHO decides sanctions. The incarcerated person can appeal in writing within fifteen days. If the DHO finds a person not guilty or dismisses the charges, prison staff cannot appeal.

23. Information in this section is aggregated from: N.C. DEP’T OF PUB. SAFETY, *supra* note 5, at 53–54; N.C. DEP’T OF PUB. SAFETY, OFFENDER DISCIPLINARY PROCEDURES (2020), https://files.nc.gov/ncdps/B-.0200_11_03_20.pdf; Memory et al., *supra* note 13; N.C. DEP’T OF PUB. SAFETY, *Transition Services*, <https://www.ncdps.gov/adult-corrections/prisons/transition-services> (last visited Feb. 9, 2021).

<p>Stage 2: Disciplinary Hearing cont.</p>	<p><u>Guilty plea:</u></p> <ul style="list-style-type: none"> • The disciplinary-hearing officer (DHO) decides what sanctions the prison will administer. • Pleading guilty usually leads to reduced sanctions. • A person cannot appeal after pleading guilty. • See <i>Stage 4: Sanctions</i>.
<p>Stage 3: Appeal</p>	<p><u>Appeal:</u></p> <ul style="list-style-type: none"> • The prison imposes sanctions—including disciplinary segregation—immediately after the disciplinary hearing, irrespective of a pending appeal. • The Commissioner of Prisons or their designee reviews the appeal. After reviewing the record, that person decides to: <ul style="list-style-type: none"> ○ Approve the DHO’s guilty verdict; ○ Order a reinvestigation or re-hearing; or ○ Dismiss the case. <p><u>No appeal:</u></p> <ul style="list-style-type: none"> • The prison imposes sanctions. • See <i>Stage 4: Sanctions</i>.
<p>Stage 4: Sanctions</p>	<p><u>Automatic consequences:</u></p> <ul style="list-style-type: none"> • The infraction goes on the person’s formal, publicly accessible OPUS “offender profile” record. • The prison charges the incarcerated person a \$10.00 fee per disciplinary report that ends in a guilty disposition. <p><u>Formal sanctions may include:</u></p> <ul style="list-style-type: none"> • Being moved to disciplinary segregation (solitary confinement). • Loss of “privileges” like access to the radio, phone, or canteen. • Loss of visitation “privileges.” • Loss of sentence credits, generally leading to more time in prison. • Extra work-duty hours. <p>(DPS outlines maximum days of sanctions for each offense type in their <i>Offender Disciplinary Procedures</i>. The prison may punish people for less than the maximum length of time.)</p> <p><u>Other consequences may include:</u></p> <ul style="list-style-type: none"> • Reduced chance of being released on parole (if parole-eligible), clemency, or commutation. • Reduced chance of participating in work release, community leave, or home leave.

II. RACIAL DISPARITIES IN PRISON DISCIPLINE

My sample included 21,277 people.²⁴ They received 47,996 write-ups in 2020.²⁵ The most common write-ups were for disobeying orders (27.6% of write-ups), substance possession (9.6%), profane language (7.4%), sexual acts²⁶ (4.8%), and unauthorized leave (4.5%).

A. Disparities at Each Stage in the Process

I examined the four stages of the disciplinary process: (1) write-ups, (2) disciplinary hearings, (3) appeals, and (4) sanctions. I isolated each of these stages to determine where racial disparities emerge.

1. Stage One: Write-Ups²⁷

I first examined racial disparities in the issuance of write-ups at the unit level. A “unit” is an administrative segment within a prison. The unit is the first level at which the prison addresses an alleged infraction.

Table 1
Descriptive Statistics About Race and Disciplinary Infractions

Race	# of People in Sample (% of Sample)	# of Write-Ups (% of Write-Ups)	People Who Received No Write-Ups (% of Group)	People Who Received 1+ Write-Ups (% of Group)
White	7,772 (36.5%)	14,891 (31%)	3,746 (48.2%)	4,026 (51.8%)
Black	11,423 (53.7%)	29,399 (61.3%)	4,490 (39.3%)	6,933 (60.7%)
Latinx	1,361 (6.4%)	2,048 (4.3%)	708 (52.0%)	653 (48.0%)
Indigenous	484 (2.3%)	1,286 (2.7%)	186 (38.4%)	298 (61.6%)
Other	237 (1.1%)	372 (0.8%)	129 (54.4%)	108 (45.6%)
All	21,277	47,996	9,259 (43.5%)	12,018 (56.5%)

Black and Indigenous people were overrepresented in disciplinary write-ups. Black people represented 53.7% of the sample but accounted for 61.3% of the write-ups. Indigenous people represented 2.3% of the sample but received 2.7% of the write-ups. On the other hand, white people, Latinx people, and others received disproportionately few disciplinary write-ups.

24. For more information about how I identified this sample, see *infra* p. 26–29.

25. See *infra* pp. 30–32, Appendix Table 1 (showing frequencies for all infraction types).

26. North Carolina is one of fourteen U.S. states that prohibits all masturbation by incarcerated people. Sam D. Hughes, *Release Within Confinement: An Alternative Proposal for Managing the Masturbation of Incarcerated Men in U.S. Prisons*, 6 J. POSITIVE SEXUALITY 1, 7 (2020).

27. See *infra* pp. 29–37 (explaining methods in more depth).

However, these descriptive statistics may not give the complete picture because they do not control for other predictor variables that may be related to race. We know, for instance, that sentencing disparities plague the criminal legal system and that Black people are especially likely to receive long sentences.²⁸ Previous research has suggested that after someone has been in custody for a long time, they are less likely than more recent arrivals to receive infractions.²⁹ Controlling for years in custody is crucial, therefore, because failure to do so could obfuscate disparities between similarly situated people of different races. At the same time, failing to control for other variables could exaggerate racial disparities if, in fact, those disparities are explained by some variable other than race.

I controlled for years in custody, age, sex, and sentencing regime. After controlling for other variables, I found that a Black person was 10.3% more likely than a white person to receive at least one disciplinary write-up in 2020.³⁰ An Indigenous person was 13% more likely than a white person to receive a write-up. A Latinx person was 25% less likely than a white person to receive a write-up.³¹ Finally, a person whose race was categorized as other was 18.9% less likely than a white person to receive a write-up.

28. *Report to the United Nations on Racial Disparities in the U.S. Criminal Justice System*, THE SENTENCING PROJECT (2018), <https://www.sentencingproject.org/publications/un-report-on-racial-disparities/> (“African Americans . . . are more likely to experience lengthy prison sentences.”).

29. Timothy J. Flanagan, *Time Served and Institutional Misconduct: Patterns of Involvement in Disciplinary Infractions Among Long-Term and Short-Term Inmates*, 8 J. CRIM. JUST. 357 (1980).

30. I report only the risk ratios in the main body of the Article, as they are more intuitive to understand and less likely to be misinterpreted. To see the odds ratios, refer to the tables in the quantitative-methods appendix. See *infra* pp. 26-60. I calculated these risk ratios by applying the method devised by Zhang & Yu for binary logistic regression. Jun Zhang & Kai Yu, *What’s the Relative Risk? A Method of Correcting the Odds Ratio in Cohort Studies of Common Outcomes*, 280 JAMA 1690, 1691 (1998); see also Akiva Liberman, *How Much More Likely? Implications of Odds Ratios for Probabilities*, 26 AM. J. EVALUATION 253, 260 (explaining the applications of the Zhang & Yu method to research about the criminal legal system).

31. One possible explanation for this is that some Latinx people speak Spanish, Portuguese, or Indigenous Mesoamerican languages and do not speak English. English-speaking guards may be less likely to accuse non-English speakers of infractions like “profane language” or “threats.” On the other hand, guards may be more likely to accuse people who do not speak English of disobeying orders, even if they cannot understand those orders. Cf. *Minor Infractions Lead to Torture*, DISABILITY RTS. N.C. (July 21, 2021), <https://disabilityrightsncc.org/news/drnc-newsfeed/minor-infractions-lead-to-torture-in-prisons> (citing instances where people with hearing disabilities received infractions for disobeying orders).

Figure 1
Effects of Predictor Variables on Odds of Receiving Write-Up(s)

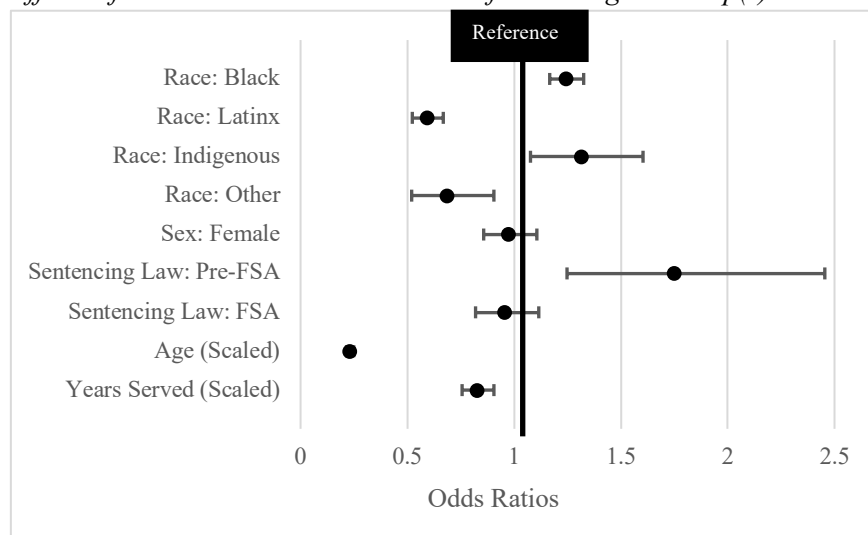


Figure 1 shows the effect of each variable on the odds of a person getting at least one write-up in 2020. The brackets represent the 95% confidence intervals.³² The thick vertical line represents the reference category: white males sentenced under the Structured Sentencing Act.³³ The variables to the left of the reference category (race: Latinx; race: other; more years of age; and more years in custody) reduced the person's odds of receiving a write-up. The variables to the right of the reference category (race: Black; race: Indigenous; and sentencing law: pre-Fair Sentencing Act) increased the person's odds of receiving a write-up. The two variables that straddle the reference category (sentencing law: Fair Sentencing Act; and sex: female) did not have statistically significant effects on write-up odds.

Unit-Level Guilty Pleas

Of these 47,996 write-ups, people pleaded guilty to 10,847 (22.6%) and not guilty to 8,377 (17.5%) at the unit level. No plea was entered for the remaining 28,772 (59.9%). I reviewed all 47,996 write-ups and used binary logistic regression to determine whether there was a racial disparity in

32. Confidence intervals mean that if this analysis were repeated with a different sample of the population (incarcerated people in North Carolina in 2020), the odds ratios would fall within these ranges 95 times out of 100.

33. By making white males the reference category, I do not mean to suggest that whiteness and maleness are the norm. Rather, "reference category" is a statistical term that refers to the group to which other groups are being compared for the purposes of rendering the most useful analysis. Making one group the "reference category" is not a normative claim.

which racial groups pleaded guilty to alleged infractions instead of pleading not guilty or not entering a plea. Black people were 12.3% less likely and Indigenous people 12.5% less likely than white people to plead guilty.

Unit-Level Outcomes

Of these 47,996 write-ups, 4,147 (8.6%) were counseled,³⁴ 3,758 (7.8%) were dismissed, 332 (0.7%) resulted in not-guilty findings at the unit level, 10,770 (22.4%) resulted in guilty findings,³⁵ and 28,982 (60.4%) were referred to disciplinary-hearing officers. The remaining seven cases were missing a unit-level verdict.

I analyzed the 37,149 write-ups for which people did not enter guilty pleas.³⁶ I used binary logistic regression to determine whether there was a racial disparity in who received what the incarcerated person would likely consider a “favorable outcome” (counseled, charges dismissed, or found not guilty). Latinx people were 13.4% more likely than white people to receive favorable outcomes at the unit level. There were no statistically significant effects for other racial groups (Black, Indigenous, or other).

2. Stage Two: Disciplinary Hearings³⁷

I considered the 28,953 cases that progressed to disciplinary hearings.³⁸ People pleaded guilty to 16,441 (56.8%) of the alleged infractions, pleaded not guilty to 4,903 (16.9%), and did not enter a plea for the remaining 7,609 (26.3%). Disciplinary-hearing officers found people guilty of 22,734 allegations (78.5%), found people not guilty of 23 (0.1%), dismissed the charges for 2,908 (10%), and ordered a reinvestigation for 3,284 (11.3%). The four remaining cases were missing disciplinary-hearing outcomes.

Guilty Pleas at Disciplinary Hearings

I used binary logistic regression to examine disparities in guilty pleas to alleged infractions at disciplinary hearings. I controlled for sex, age, years in custody, and sentencing law. Relative to white people, Black people were 16.9% less likely, Latinx people 8% less likely, and people whose races

34. This means that the case stopped at the unit level and no sanctions were issued.

35. Guilty findings at the unit level usually followed guilty plea.

36. I omitted guilty pleas from this analysis because most guilty pleas resulted in unit-level guilty verdicts. I did not want this analysis to duplicate the previous analysis of predictors of guilty pleas.

37. See *infra* pp. 38–40 (explaining methods in more depth).

38. Not all of those that were referred to a DHO progressed to a hearing.

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were categorized as other 15.3% less likely to plead guilty. There was not a statistically significant effect for Indigenous people.³⁹

Contested Hearing Outcomes

I then considered only the 12,512 charges that led to contested hearings—those for which people pleaded not guilty or did not enter a plea. I used binary logistic regression to evaluate the relationship between race and whether there was a guilty verdict versus some other outcome (reinvestigate, not guilty, dismissal, or missing). I controlled for sex, age, years in custody, and sentencing law. In contested disciplinary hearings, officers were 7.5% more likely to find Black people guilty than to find white people guilty. There was no effect for Latinx people, Indigenous people, or others.

3. Stage Three: Disciplinary Appeals⁴⁰

I examined the 6,314 cases in which people did not plead guilty but were found guilty at disciplinary hearings. Incarcerated people appealed 2,638 (41.8%) of these decisions.

Decision to Appeal

I used binary logistic regression to evaluate whether there was a racial disparity in the decision to appeal a guilty verdict after a disciplinary hearing. There were no statistically significant racial disparities for any groups.

Guilty Pleas on Appeal

When appealing to the Commissioner of Prisons, people pleaded guilty to 248 (8.3%) of the 2,985 alleged infractions, pleaded not guilty to 2,317 (77.6%), and did not enter pleas for the remaining 420 (14.1%).

I used binary logistic regression to examine whether there was a racial disparity in guilty pleas on appeal. I found no statistically significant racial disparity in appeal-level guilty pleas.

Guilty Verdicts at Contested Appeals

The Commissioner of Prisons or their designee found people guilty of 2,885 of the charges (96.6%), dismissed the charges for 85 (2.8%), and ordered reinvestigations for 15 (0.5%).

39. Indigenous people were 4.8% less likely than white people to plead guilty, but this effect was not significant at the $p < .05$ level ($p = .087$). See *infra* p. 38.

40. See *infra* pp. 41–44 (explaining methods in more depth).

I used binary logistic regression to evaluate the relationship between race and whether there was a guilty verdict versus another outcome (reinvestigate, not guilty, or dismissal) at contested appeals. By contested appeals, I mean those for which people did not enter guilty pleas. I controlled for sex, age, years in custody, and sentencing regime. Indigenous people were 4.8% less likely than white people to be found guilty on appeal. There were no statistically significant effects for Black people, Latinx people, or others.

4. Stage Four: Sanctions⁴¹

I examined the 3,599 write-ups for disobeying orders (the most common infraction) to which people pleaded guilty and were adjudged guilty at the unit level—meaning that the cases never progressed to disciplinary hearings. I investigated only this particular infraction and set of circumstances because I wanted to compare outcomes for similarly situated people who had received the same write-up but who were from different racial groups. The average sanctions for disobeying orders with a guilty plea and a guilty verdict at the unit level were ten days of disciplinary segregation, twelve lost good days,⁴² forty-one days of suspended privileges, and twenty-nine extra work-duty hours.

I used multiple linear regression (OLS) to test for disparities in four types of sanctions for disobeying orders: (1) days of disciplinary segregation, (2) days of lost good time, (3) days of suspended privileges, and (4) extra work-duty hours. The model predicted that for this type of alleged infraction at this level, Black people would receive 1.54 fewer days of suspended privileges and 0.94 fewer extra work-duty hours than white people. The model also predicted that Latinx people would receive 4.04 fewer extra work-duty hours than white people. There were no other statistically significant racial disparities in sanctions.⁴³

41. See *infra* pp. 44–50 (explaining methods in more depth).

42. Good time may reduce the term of incarceration. N.C. DEP'T OF PUB. SAFETY, *supra* note 12, at 1. Although the loss of good time is likely to change only the release date for people sentenced prior to 1994, the raw data showed that people sentenced more recently can also lose good time as a sanction.

43. There were several results that were significant at the $p < .10$ level but not the $p < .05$ level: Black people were predicted to receive 0.5 fewer days of disciplinary segregation than white people ($p = .081$). See *infra* p. 45. Black people were predicted to lose .783 more days of good time than white people ($p = .067$). See *infra* p. 46. Indigenous people were predicted to experience 3.97 fewer days of suspended privileges than white people ($p = .052$). See *infra* p. 48.

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B. Disparities in Overall Outcomes

1. Final Dispositions After Write-Ups⁴⁴

I examined all write-ups issued to sample members and used binary logistic regression to identify the factors that predicted eventual guilty dispositions. I looked at outcomes at all levels: at the unit level; at a disciplinary hearing; on appeal; or on a second, third, or fourth review. Of these write-ups, 72.8% resulted in final guilty dispositions.

After receiving write-ups, Black people were 3.2% less likely than white people to have their cases end with guilty dispositions, possibly because Black people were less likely to plead guilty at the unit level and at disciplinary hearings.⁴⁵ There were no statistically significant effects for Latinx people,⁴⁶ Indigenous people, or others.

Even though Black people were less likely to be found ultimately guilty following write-ups, Black people were still more likely to receive write-ups in the first place. Consequently, they remained more likely than white people to experience sanctions like disciplinary segregation.

2. Sanctions⁴⁷

Black incarcerated people and Indigenous people in the sample spent more time, on average, in disciplinary segregation than their white and Latinx counterparts. They also lost more good time, received more days of lost privileges, and received more extra work-duty hours than white and Latinx people.

44. *See infra* pp. 50–51 (explaining methods in more depth).

45. *See supra* pp. 10–11 (identifying disparities in unit-level guilty pleas).

46. Latinx people were 2.8% less likely than white people to receive eventual guilty verdicts, but this effect was not significant at the $p < .05$ level ($p = .050$). *See infra* p. 51.

47. *See infra* pp. 52–60 (explaining methods in more depth).

Table 2
Descriptive Statistics About Race and Sanctions

Race	Average days in disciplinary segregation in 2020	Average days of lost good time due to infraction(s) in 2020	Average days of suspended privileges in 2020	Average extra work- duty hours in 2020
White	17.25	16.37	62.40	44.67
Black	24.48	24.45	87.69	60.49
Latinx	13.91	13.81	50.83	35.41
Indige nous	25.31	20.07	88.10	61.01
Other	14.76	15.81	54.18	36.79
All	21.07	20.62	75.73	52.85

I used binary logistic regression to control for other relevant variables and determine the effect of race on receipt of sanctions for all 21,277 people in the sample. In 2020, Black people were 7.9% more likely than white people to receive disciplinary segregation, 10.3% more likely to lose good time, 8.1% more likely to experience suspended privileges, and 8.2% more likely to receive extra work-duty hours. Indigenous people were 22.9% more likely than white people to receive disciplinary segregation, 20.1% more likely to lose good time, 17.7% more likely to experience suspended privileges, and 18% more likely to receive extra work-duty hours. Latinx people were 35.8% less likely than white people to receive disciplinary segregation, 33.9% less likely to lose good time, 34.6% less likely to experience suspended privileges, and 34.6% less likely to receive extra work-duty hours. Finally, people whose races were categorized as other were 24.8% less likely than white people to receive disciplinary segregation, 20.5% less likely to lose good time, 25.5% less likely to experience suspended privileges, and 27% less likely to receive extra work-duty hours.

Figure 2
Effects of Predictor Variables on Odds of Receiving Disciplinary Segregation

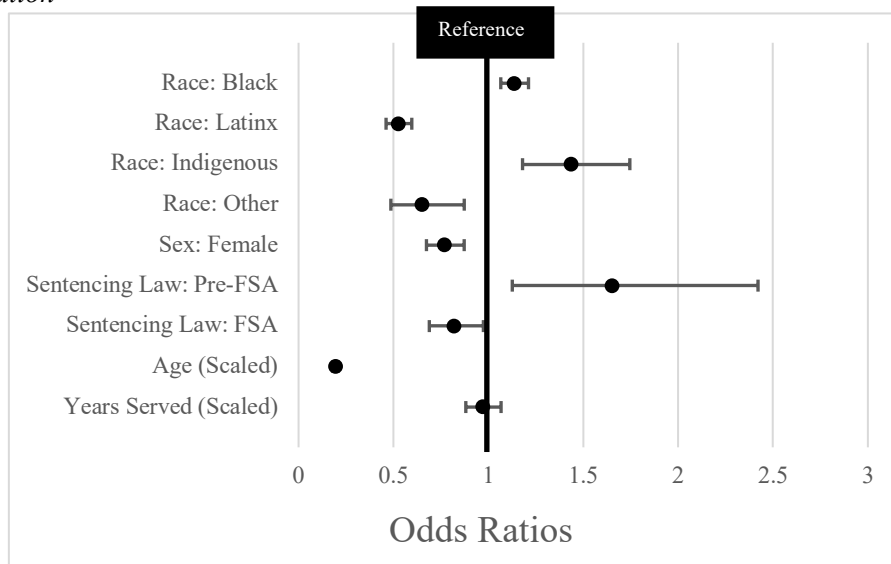


Figure 2 shows the effect of each variable on the odds of receiving disciplinary segregation in 2020. The brackets represent the 95% confidence intervals.⁴⁸ The thick vertical line represents the reference category: white males sentenced under the Structured Sentencing Act.⁴⁹ The variables to the left of the reference category (race: Latinx; race: other; sex: female; sentencing law: Fair Sentencing Act; and more years of age) reduced the odds of receiving disciplinary segregation. The variables to the right of the reference category (race: Black; race: Indigenous; and sentencing law: pre-Fair Sentencing Act) increased the odds of receiving disciplinary segregation. The variable that straddles the reference category (years in custody) did not have a statistically significant effect.

C. Limitations

One limitation of this study concerns the quality of the official data about race and ethnicity. All data presented here come from two DPS datasets.⁵⁰ DPS's coding of race and ethnicity was inconsistent. DPS uses at least sev-

48. See *supra* note 32 (explaining confidence intervals).

49. See *supra* note 33 (describing the non-normative meaning of "reference category").

50. N.C. DEP'T OF PUB. SAFETY, INMT4AA1 (2021), <https://webapps.doc.state.nc.us/opi/downloads.do?method=view> (last visited Apr. 6, 2021).

enteen different labels in their race and ethnicity designations,⁵¹ and DPS does not use these labels consistently from person to person. For example, DPS might label one person's race as "Asian" and their ethnicity as "Oriental." DPS might label another person's race as "Other" and their ethnicity as "Asian." To complete the regression analyses, I needed several discrete racial categories. I recoded the seventeen labels into five categories: (1) white, (2) Black, (3) Indigenous, (4) Hispanic, and (5) other.⁵² The "other" category includes Asian incarcerated people because the small number of Asian incarcerated people did not yield statistically significant results independently. Although these five categories do not encapsulate the complexity of people's racial and ethnic identities, I hope that coding the data in this way will shed light on how differently racialized groups of people experience prison discipline differently as a result.

A second limitation is that while this analysis relies on data from 2020, that was not a normal year. The Covid-19 pandemic disproportionately affected incarcerated people.⁵³ As of July 2021, one in three incarcerated people in North Carolina state prisons had tested positive for Covid-19.⁵⁴ One out of every 623 incarcerated people in North Carolina had died from Covid-19.⁵⁵ It is certainly possible, therefore, that the pandemic changed the way prisons administered infractions. However, many of the present findings align closely with Bridget Brew's analysis of previous years' data.⁵⁶ Therefore, it seems reasonable to conclude that the pandemic neither significantly reshaped the prison-discipline system nor altered that system's racial disparities.

A third limitation of these analyses is that, although this paper can quantify disparities in treatment, it cannot explain what causes those disparities. In the next section, I identify two possible explanations—explicit racial bias and implicit racial bias—and suggest avenues for future research.

III. EXPLAINING THE DISPARITIES

Black and Indigenous people were much more likely than similarly situated white people to receive disciplinary write-ups in 2020. Researchers

51. N.C. DEP'T OF PUB. SAFETY, INMT4AA1, *supra* note 50; *see also* TASK FORCE, *supra* note 3, at 137 (recommending that the N.C. criminal legal system code race data uniformly).

52. The quantitative-methods appendix explains this procedure in detail. *See infra* p. 26–60.

53. *A State-by-State Look at Coronavirus in Prisons*, THE MARSHALL PROJECT, <https://www.themarshallproject.org/2020/05/01/a-state-by-state-look-at-coronavirus-in-prisons> (last updated July 1, 2021, 1:00 PM).

54. *Id.*

55. *Id.*

56. Brew, *supra* note 16, at 41 (finding a 1.218 odds ratio for a Black man versus a white man receiving at least one annual incarceration during the period from 1995–2016).

have often interpreted different racial groups' different rates of infractions as evidence that certain races are more likely than others to break prison rules.

In the 1970s, however, some researchers began challenging this reductive assumption, recognizing that disciplinary infractions are misleading measures of rule violations.⁵⁷ Because not all violations result in write-ups,⁵⁸ differential infraction rates may measure bias or “selective perception”⁵⁹ on the part of prison staff far more than they measure actual rule-breaking behavior.⁶⁰ Nonetheless, some contemporary researchers continue to interpret data about disparities in disciplinary infractions as though those findings were evidence that people of color actually violate rules more frequently than white people.⁶¹

Do different racial groups break prison rules at dramatically different rates? Probably not. In 1979, researchers found that Black people in prison self-reported engaging in aggressive physical and verbal conduct no more often than their white counterparts self-reported such behavior—but correctional officers at the same prison gave Black people disproportionate write-ups and reported that they felt that Black people were more aggressive.⁶²

The tendency to unquestioningly equate rates of infractions with rates of rule violations is a severe limitation of previous research in this area. Most misconduct in prison is neither detected nor formally reported. In a 1980 analysis of infractions in Ohio, researchers found that only 16.5% of the people in their sample had received formal disciplinary infractions in the preceding month, but 91.8% admitted to having violated prison rules during that period.⁶³ This statistic suggests that most rule breaking went unreported. They also found that, although Black and white incarcerated people violated rules at the same rates,⁶⁴ Black people received more infractions.⁶⁵ The researchers reasoned, therefore, that “disciplinary reports may tell us as

57. See, e.g., Eric D. Poole & Robert M. Regoli, *Race, Institutional Rule Breaking, and Disciplinary Response: A Study of Discretionary Decision Making in Prison*, 14 L. & SOC'Y REV. 931, 940 n.9 (1980); Stephen C. Light, *Measurement Error in Official Statistics: Prison Rule Infraction Data*, 54 FED. PROBATION 63 (1990); Anne M. Heinz et al., *Sentencing by Parole Board*, 67 J. CRIM. L. & CRIMINOLOGY 1 (1976).

58. Poole & Regoli, *supra* note 57, at 940 n.9.

59. Heinz et al., *supra* note 57, at 17.

60. Poole & Regoli, *supra* note 57, at 931 n.12.

61. See, e.g., Bonner et al., *supra* note 16, at 43 (“Blacks committed rule violations at a significantly higher rate than Whites[.]”).

62. Barbara S. Held et al., *Interpersonal Aspects of Dangerousness*, 6 CRIM. JUST. AND BEHAVIOR 49, 52–53 (1979).

63. Poole & Regoli, *supra* note 75, at 940 n.9.

64. *Id.* at 944.

65. *Id.* at 940.

much about the reaction of guards as they do about the activity of inmates.”⁶⁶

The question of whom prison officials choose to scrutinize may be more important than actual behavior in determining which groups incur more disciplinary infractions. If a prison official expects Black people to commit more infractions, that official may observe Black people more closely and thereby discover more misconduct.⁶⁷ This is a vicious cycle: a history of write-ups may predict future write-ups more than one’s actual propensity to commit rule violations predicts them.⁶⁸ Disparities compound, producing more disparities.

Furthermore, correctional officers exercise considerable discretion in the disciplinary process.⁶⁹ Prison officials can decide whether to handle misconduct informally or through write-ups. Previous research suggests that the decision to issue a formal write-up is influenced by a host of factors beyond the precise nature of the conduct.⁷⁰ Researchers have found that, instead of identifying misconduct by picking out specific broken rules, correctional officers often decide first to discipline someone generally—and only after that decision do they determine what rule to apply.⁷¹ A prison official harboring animus toward a particular person—or a particular group—may act on that animus by deciding to issue a write-up and then retroactively alleging a specific violation.

Many prison rules are vague. Professor Andrea Armstrong writes that “ambiguous disciplinary rules, particularly those regulating an inmate’s attitude, are especially susceptible to the influence by an individual prison guard’s implicit racial preferences.”⁷² Several investigations have shown that the infractions that allow the most officer discretion also result in the widest racial disparities.⁷³ For example, *The New York Times* found that

66. *Id.* at 945 n.12.

67. *Id.* at 933, 940.

68. *Id.* at 942.

69. MARK BOWERS ET AL., SOLITARY CONFINEMENT AS TORTURE 41 (2014) <https://law.unc.edu/wp-content/uploads/2019/10/solitaryconfinementreport.pdf> (“And, because the definitions of these infractions are extremely broad and open to interpretation, they vest extraordinary amounts of discretion in a ground-level correctional officer, who is the judge and jury as to whether the order that he gave an inmate was properly obeyed, or whether any language that he heard an inmate use was offensive.”).

70. Light, *supra* note 57, at 63–64.

71. *Id.* at 64 (citing Lucien X. Lombardo, *Correction Officer Discretion: Informal Rule Enforcement Processes in a Maximum Security Prison* (1980) (presented at the Ann. Meetings of the Am. Soc’y of Criminology)).

72. Andrea C. Armstrong, *Race, Prison Discipline, and the Law*, 5 U.C. IRVINE L. REV. 759, 772 (2015).

73. Held et al., *supra* note 62, at 57; BOWERS ET AL., *supra* note 69, at 42; Michael Schwirtz et al., *The Scourge of Racial Bias in New York State’s Prisons*, N.Y. TIMES (Dec. 3, 2016), <https://www.nytimes.com/2016/12/03/nyregion/new-york-state-prisons-inmates-racial-bias.html>.

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racial disparities were most pronounced when officers had “a high degree of latitude to determine whether a rule [was] broken and [did] not need to produce physical evidence.”⁷⁴ The authors of a similar study concluded that the explanation that Black people somehow violated the more ambiguous rules at much higher rates than they violated other rules was “far-fetched.”⁷⁵ Instead, the authors theorized that the ambiguity of the rules allowed officers to use their discretion to punish Black people more than they punished white people because officers incorrectly perceived Black people to be more dangerous.⁷⁶

Advocates in North Carolina contend that some prison rules are so vague that they are “impossible not to break.”⁷⁷ For instance, it is a violation to possess “*any object that could aid in an escape*”—a designation that might apply to items as innocuous and ubiquitous as pencils or bedsheets.⁷⁸ It should surprise no one that rules like these are applied unevenly.⁷⁹ Prison officials’ discretion and the ambiguity of the rules allow biases—both explicit and implicit—to creep into officials’ decisions about whom to punish and how to punish them.

A. *Explicit Racial Bias*

Prison staff with explicit racial animus may discriminate when issuing disciplinary write-ups. Kelsey Kauffman, a researcher who studies prisons, told the Southern Poverty Law Center that “[p]risons and jails are the most racially divisive institutions in America . . . All too often, employees act out their own racial antagonisms, individually or collectively.”⁸⁰

It is difficult to identify cases of explicit racial bias in prisons because the corresponding lawsuits often result in settlements sealed by court orders.⁸¹ One exception to this was in 2018 when a Black Muslim correctional officer at North Carolina’s Polk Correctional Institution (now called Granville

74. Schwirtz et al., *supra* note 73.

75. Held, *supra* note 62, at 57.

76. *Id.* at 56.

77. *Minor Infractions Lead to Torture*, *supra* note 31.

78. *Id.* (alteration in original) (quoting N.C. DEP’T OF PUB. SAFETY, INMATE DISCIPLINE, at 1 (2017), <https://files.nc.gov/ncdps/documents/files/Disciplinary%20Offenses%20Handout%20%282017%29.pdf>).

79. Although this analysis focuses on race, it is important to note that disparities exist across identity markers other than race, including disability status. Troublingly, Disability Rights North Carolina notes that prison officials have put people with hearing disabilities in solitary confinement for disobeying orders, even when the accused people could not hear the person giving the orders. *Id.*

80. *Allegations of Racist Guards are Plaguing the Corrections Industry*, S. POVERTY L. CTR. (Dec. 6, 2000), <https://www.splcenter.org/fighting-hate/intelligence-report/2000/allegations-racist-guards-are-plaguing-corrections-industry>.

81. *Id.*

Correctional Institution) sued the state for racial and religious discrimination.⁸² He alleged that the prison lieutenant had called him the N-word.⁸³ Incarcerated people have reported similar altercations in other states.⁸⁴ These incidents suggest that some prison officials may harbor racial antagonism, which may explain—at least in part—the elevated infraction rates for Black and Indigenous people.

B. Implicit Racial Bias

Implicit bias may offer a supplementary explanation. Implicit racial bias is an unconscious process that can lead a person to behave in ways that preference certain races over others.⁸⁵ Unlike explicit bias, this process occurs outside of the actor's conscious awareness, making it challenging to identify and mitigate.⁸⁶

Researchers have shown that implicit bias influences teachers' decisions about how to discipline students,⁸⁷ police officers' decisions about whether to shoot suspects,⁸⁸ and judges' and juries' decisions in the courtroom.⁸⁹ It seems a reasonable inference that if implicit racial bias informs decisions by teachers, police officers, judges, and juries about whom and how to punish, so too must implicit bias inform prison officials' decisions about disciplinary infractions. In her consideration of the role that implicit racial bias may play in prison discipline, Professor Armstrong explains that “the people who work in these closed institutions are subject to the same biases and

82. Will Doran & Camila Molina, *Correctional Officer Alleges Anti-Black, Anti-Muslim Bias over his Beard*, NEWS & OBSERVER (Jun. 25, 2018), <https://www.newsobserver.com/news/local/article213801944.html>.

83. *Id.*

84. E.g., Paul Egan, *Prison Supervisor Who Admitted Using N-Word Facing More Accusations of Racism*, DETROIT FREE PRESS (Oct. 2, 2020), <https://www.freep.com/story/news/local/michigan/2020/10/02/prison-racism-capt-frank-sawyer/5886004002/>; Janelle Griffith, *Georgia Officer Who Called Inmate on Suicide Watch a ‘Crazy N-Word’ to be Fired*, NBC NEWS (Sept. 28, 2020), <https://www.nbcnews.com/news/us-news/georgia-officer-who-called-inmate-suicide-watch-crazy-n-word-n1241283>. In one instance, before a guard attacked a Black man, the guard said that he was going to “serve up some black mashed potatoes with tomato sauce.” Schwirtz et al., *supra* note 73.

85. Anthony Greenwald & Linda Hamilton Krieger, *Implicit Bias: Scientific Foundations*, 94 CAL. L. REV. 945, 954–55 (2006).

86. *Id.* at 946, 951.

87. WALTER S. GILLIAM ET AL., DO EARLY EDUCATORS' IMPLICIT BIASES REGARDING SEX AND RACE RELATE TO BEHAVIOR EXPECTATIONS AND RECOMMENDATIONS OF PRESCHOOL EXPULSIONS AND SUSPENSIONS? 2 (2016), https://medicine.yale.edu/childstudy/zipgler/publications/Preschool%20Implicit%20Bias%20Policy%20Brief_final_9_26_276766_5379_v1.pdf.

88. Joshua Correll et al., *The Police Officer's Dilemma: A Decade of Research on Racial Bias in the Decision to Shoot*, 8 SOC. & PERSONALITY PSYCH. COMPASS 201, 207 (2014).

89. CHERYL STAATS ET AL., STATE OF THE SCIENCE: IMPLICIT BIAS REVIEW 19–27 (2016), <http://kirwaninstitute.osu.edu/wp-content/uploads/2016/07/implicit-bias-2016.pdf>.

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psychological phenomena as the general public.”⁹⁰ Simply put, implicit bias likely produces racial disparities inside prisons.

Although the present study identified disparate rates of disciplinary infractions, this type of analysis cannot parse whether those differences are attributable to explicit bias, implicit bias, some other factor, or some combination of these factors. Future experimental research should study implicit bias among correctional officers. Such research should also evaluate the potential mitigating effect of implicit-bias training for prison staff.

IV. TASK FORCE RECOMMENDATIONS

These findings lend support to four of the Task Force’s 2020 recommendations: 85, 105, 107, and 109.⁹¹ Recommendations 107 and 109 involve the disciplinary process and the prison staff who implement it. Recommendations 85 and 105 address the consequences of disciplinary infractions.

A. Enhance Prison Personnel (Recommendation #107)

The Task Force recommended that the legislature fund and mandate training about racial equity, cultural competency, and implicit bias.⁹² The results presented here suggest that prison personnel may enforce rules differently for people of color than they do for white people, which may be partially attributable to implicit bias. New training could help mitigate those disparities. The North Carolina General Assembly should allocate funds for such training.

But training cannot be the only solution. A consultant who leads implicit-bias trainings warned in the *Harvard Business Review* that “not all trainings are equally good—and none are a silver bullet.”⁹³ Indeed, anti-bias training may entrench rather than reduce biases in some circumstances, especially when training is compulsory.⁹⁴ While a promising step, access to training must be coupled with other reforms, including improved due process protections.

90. Armstrong, *supra* note 72, at 760.

91. These numbers refer to the specific recommendations as denoted in the Task Force’s report. TASK FORCE, *supra* note 3, at 96, 118–22.

92. *Id.* at 121–22.

93. Joelle Emerson, *Don’t Give Up on Unconscious Bias Training—Make It Better*, HARV. BUS. REV. (Apr. 28, 2017), <https://hbr.org/2017/04/dont-give-up-on-unconscious-bias-training-make-it-better>.

94. Frank Dobbin & Alexandra Kalev, *Why Diversity Programs Fail*, HARV. BUS. REV. (2016), <https://hbr.org/2016/07/why-diversity-programs-fail> (“[P]eople often respond to compulsory courses with anger and resistance—and many participants actually report more animosity toward other groups afterward.”).

B. Increase Due Process Protections (Recommendation #109)

The Task Force also recommended that DPS review how and whether the disciplinary system adequately protects people's due process rights.⁹⁵ The data in this Article may aid in that review.

Furthermore, the Task Force recommended identifying bias by tracking individual disciplinary-hearing officers' decisions.⁹⁶ This tracking system would be a promising step. The present study found that disciplinary-hearing officers were 7.5% more likely to find Black people guilty than to find white people guilty,⁹⁷ suggesting that there might be bias at the disciplinary-hearing level.

However, disparities were even more extreme at the unit level. Black people were 10.3% more likely and Indigenous people 13% more likely than white people to receive write-ups in the first place.⁹⁸ DPS should implement this tracking system but should expand it to screen for biased behavior by the authorities who decide whether to issue write-ups at all: individual correctional officers, unit supervisors, and other unit-level staff.

C. Require Bias and Racial-Equity Trainings for Parole Staff (Recommendation #85)

Parole Commissioners consider people's disciplinary records when assessing their candidacies for parole.⁹⁹ The Task Force recommended instituting mandatory implicit-bias and racial-equity trainings for Parole Commissioners.¹⁰⁰ Again, training will not be a magic bullet.¹⁰¹ Training might, however, help Parole Commissioners understand parole-eligible people's disciplinary records in context—especially if Parole Commissioners are made aware of the disparities identified here. The data in this Article might also help advocates contextualize their clients' disciplinary records when representing people before the Parole Commission, the Juvenile Sentence Review Board, and similar bodies.¹⁰²

95. TASK FORCE, *supra* note 3, at 122.

96. *Id.*

97. *See supra* p. 12 (identifying disparities in disciplinary-hearing outcomes).

98. *See supra* p. 8 (identifying disparities in unit-level write-up issuance).

99. Memory et al., *supra* note 13, at 50–51.

100. TASK FORCE, *supra* note 3, at 96.

101. Emerson, *supra* note 93.

102. Clinical Assistant Professor Renagh O'Leary teaches law students how to represent people applying for early release. She instructs advocates to highlight their clients' growth in prison and to contextualize their clients' experiences by pointing out the systemic injustices they face. Renagh O'Leary, *Early Release Advocacy in the Age of Mass Incarceration*, 2021 WIS. L. REV. 447, 454, 458 (2021).

D. Transform the Use of Restrictive Housing (Recommendation #105)

Finally, the Task Force recommended that DPS change its policies to minimize the use of restrictive housing,¹⁰³ better known as solitary confinement. The Task Force also recommended that a committee regularly review data about restrictive housing—including data about the races of the people confined.¹⁰⁴

Disciplinary segregation is punitive restrictive housing.¹⁰⁵ Relative to white people, Black and Indigenous people were 7.9% and 22.9% more likely, respectively, to receive disciplinary segregation.¹⁰⁶ This disparity is especially concerning because solitary confinement is a form of torture¹⁰⁷ that causes permanent psychiatric harm.¹⁰⁸

This harm perpetuates dangerous cycles where alleged infractions lead to disciplinary segregation, and the trauma of disciplinary segregation causes people to behave in ways that lead to more infractions.¹⁰⁹ According to attorneys at Disability Rights North Carolina and the ACLU of North Carolina, prison conflict and misconduct are often manifestations of mental-health

103. TASK FORCE, *supra* note 3, at 118.

104. *Id.* at 119.

105. N.C. DEP'T PUB. SAFETY, *supra* note 5, at 12.

106. *See supra* p. 14 (identifying disparities in sanctions).

107. BOWERS ET AL., *supra* note 69, at 8 (“After interviewing survivors [of solitary confinement in North Carolina], and researching the pronounced psychological effects of solitary confinement, the authors of this report conclude that solitary confinement is ‘torture.’”); Luke Woolard, *North Carolina Is Torturing Thousands of Prisoners. It Needs to Stop.*, NC POL’Y WATCH (Feb. 4, 2021), <http://www.ncpolicywatch.com/2021/02/04/north-carolina-is-torturing-thousands-of-prisoners-it-needs-to-stop/> (“[L]ong-term solitary confinement is torture, and it must stop.”).

108. Stuart Grassian, *Psychiatric Effects of Solitary Confinement*, 22 WASH. U. J.L. & POL’Y 325, 332 (2006) (“[M]any [people]—including some who did not become overtly psychiatrically ill during their confinement in solitary—will likely suffer permanent harm as a result of such confinement.”); Craig Haney & Mona Lynch, *Regulating Prisons of the Future: A Psychological Analysis of Supermax and Solitary Confinement*, 23 N.Y.U. REV. L. & SOC. CHANGE 477, 500 (1997) (“The empirical record compels an unmistakable conclusion: this experience [of solitary confinement] is psychologically painful, can be traumatic and harmful, and puts many of those who have been subjected to it at risk of long-term emotional and even physical damage.”); BOWERS ET AL., *supra* note 69, at 74 (“Prisoners notice permanent and long-term changes in each other when someone is released from solitary confinement and placed back in general population.”).

109. Elizabeth Simpson, *Veteran NC Attorney: Abolition of Solitary Confinement is Long Overdue*, N.C. POL’Y WATCH (Oct. 14, 2021), <https://pulse.ncpolicywatch.org/2021/10/14/veteran-nc-attorney-abolition-of-solitary-confinement-is-long-overdue/> (describing a man with schizophrenia whom DPS kept in solitary confinement for eight years because the man received repeated write-ups for begging people to come talk to him while he was confined); Spencer Platt, *I Was Thrown in Solitary at 14. My Jailers Added a Day Each Time I Fought Back.*, TRUTHOUT (Aug. 3, 2021), <https://truthout.org/articles/i-was-thrown-in-solitary-at-14-my-jailers-added-a-day-each-time-i-fought-back/> (explaining how the author resisted solitary confinement and was confined longer as punishment for that resistance); *see* Molly Remch et al., *Impact of a Prison Therapeutic Diversion Unit on Mental and Behavioral Health Outcomes*, AM. J. PREVENTIVE MED. 1, 7 (forthcoming 2021) (demonstrating that diminished reliance on restrictive housing in favor of Therapeutic Diversion Units led to reduced infraction rates in N.C. prisons).

challenges.¹¹⁰ When the prison system responds to misconduct by locking people in solitary confinement, those underlying mental-health challenges get worse, not better.¹¹¹ Solitary confinement is traumatic.¹¹² Some people react to that trauma by violating prison rules, resulting in more infractions and perpetuating the cycle.

The present analysis suggests that Black and Indigenous people may be especially likely to become trapped in such a cycle because they are overrepresented in disciplinary segregation. Minimizing and monitoring the use of restrictive housing would help promote equity in sanctions. Abolishing solitary confinement would eradicate this particular disparity entirely.

CONCLUSION

There are racial disparities in the disciplinary process in North Carolina state prisons. Black and Indigenous people receive more write-ups than their white counterparts. As a result, Black and Indigenous incarcerated people receive disproportionate sanctions. These findings suggest a dire need for oversight, due process protections, and bias training within the prison-discipline system.

110. Kari Travis, *Problems at N.C. Prisons Have Festered for Years*, CAROLINA J. (Feb. 12, 2018), <https://www.carolinajournal.com/news-article/problems-at-n-c-prisons-have-festered-for-years/> (statement of the ACLU of North Carolina) (“When inmates misbehave — even when it is symptomatic of mental illness — they are sent to segregation.”).

111. Grassian, *supra* note 108, at 342; see Sharon Shalev, A SOURCEBOOK ON SOLITARY CONFINEMENT 30 (2008) (“Thus, those suffering from mental illness must not be placed in solitary confinement and under no circumstances should the use of solitary confinement serve as a substitute for appropriate mental health care.”).

112. Craig Haney, *Restricting the Use of Solitary Confinement*, 1 ANN. REV. CRIMINOLOGY 285, 304 (2018) (“The harmful effects [of solitary confinement] include a range of psychological and physical maladies, including a host of specific problematic symptoms of stress, trauma, and the psychopathological effects of isolation, a range of ultimately problematic and dysfunctional adaptations to this form of enforced asocial existence, and heightened levels of morbidity and mortality (including increased self-harm and suicidality).”); Daniel Pforte, *Evaluating and Intervening in the Trauma of Solitary Confinement: A Social Work Perspective*, 48 CLINICAL SOC. WORK J. 77, 78 (2020) (“The experience of solitary confinement should thus be considered a traumatic event that serves as a catalyst for the development of PTSD among prisoners.”).

APPENDIX: QUANTITATIVE METHODS

I examined two datasets published by DPS. The datasets, INMT4AA1 and INMT9CF, are publicly available for download.¹¹³ I downloaded the data on April 1, 2021.¹¹⁴

Sample

The sample included 21,277 incarcerated people. I restricted the sample to members of INMT4AA1 who (1) had felony convictions, (2) had prison admission dates before December 1, 2019, and (3) had “active” inmate status codes. I included only people with felony convictions because those with misdemeanor convictions tend to be housed in jails rather than prisons, and disciplinary practices in jails fall outside the scope of this study. I removed anyone admitted during December 2019 to filter out the first several weeks after someone’s conviction, during which they might temporarily be housed in a jail. Finally, I included only people listed as “active,” as this meant that they were still in prison as of April 1, 2021. I did this to avoid accidentally including someone who was released partway through 2020. I sought to restrict the sample to people who had been in prison for the entirety of 2020 because it did not make sense to compare the 2020 disciplinary record of someone who was incarcerated only for part of 2020 with the record of someone who was incarcerated for the entire year.

Infractions

I used the INMT9CF1 dataset and restricted the sample to all infractions issued in 2020. Each stage in the infraction process (write-up, disciplinary hearing, appeal) appears as a separate entry in the dataset. To analyze each stage, I filtered out all cases except those relevant to the level in question. For example, when considering write-ups, I looked only at unit-level cases. I then aggregated entries at each level by OPUS number (the identification number given to incarcerated people) to determine how many alleged infractions every member of my sample received in 2020.

113. N.C. DEP’T OF PUB. SAFETY, *supra* note 1; N.C. DEP’T OF PUB. SAFETY, INMT4AA1, *supra* note 50. A statistical software package like SPSS, Stata, or R Studio is necessary to open these fixed-width datasets. INMT9CF1, which has 3.6 million cases, is too large to open in Microsoft Excel or Google Sheets. Many universities pay for SPSS and Stata licenses. R Studio is available to download for free online.

114. DPS updates the datasets regularly. For copies of the exact datasets used for this analysis, please contact the author.

Coding Race for Statistical Analysis

I coded the race and ethnicity variables into five categorical dummy variables: White (n = 7,772), Black (n = 11,423), Latinx (n = 1,361), Indigenous (n = 484), and Other (n = 237). I coded as “Black” anyone whose (1) ethnicity was listed as African or (2) race was listed as Black and whose ethnicity was not listed as Hispanic/Latino. I coded as “white” anyone whose race was listed as white and whose ethnicity was not listed as Hispanic/Latino, American Indian, Asian, Oriental, African, or Pacific Islander. I coded as “Indigenous” anyone whose ethnicity was listed as American Indian and whose race was not listed as Black. I coded as “Latinx” anyone whose ethnicity was listed as Hispanic/Latino. I coded everyone else as “Other.” The “Other” category includes Asian people because the population of Asian incarcerated people in North Carolina is very small. I ensured that these categories were mutually exclusive and collectively exhaustive: none of these racial categorizations overlapped and that every sample member belonged to exactly one category. I used white as the reference category for the regression analyses.¹¹⁵

Other Independent Variables

My models included four predictor variables other than race: (1) age, (2) years served, (3) sex, and (4) sentencing regime.

1. Age

I calculated the years between January 1, 2020, and sample members’ birthdays to determine people’s ages at the start of 2020—the year in question.

2. Years Served Since Most Recent Admission Date

I calculated the years between January 1, 2021, and sample members’ current prison admission dates to determine how many years they had served by the end of 2020.

115. See *supra* note 33 (explaining the non-normative meaning of “reference category”).

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3. Sex

DPS lists two sexes: male and female. I used male as the reference category for the regression analyses. DPS does not maintain data about transgender or nonbinary people.

4. Sentencing Regime

The data listed “law for final ruling dates” as Structured (referring to the Structured Sentencing Act), FAIR (referring to the Fair Sentencing Act), Pre FAIR, or Pre-Automa. I recoded “Pre Fair” and “Pre-Automa” into a single “Pre-FSA” category. I used “Structured” as the reference category with “FSA” and “Pre-FSA” as the predictor variables.

5. Other Notes Regarding Independent Variables

I did not include custody level as a predictor variable. I considered adding custody level (minimum, maximum, or close) to the models as a predictor variable. However, DPS’s datasets do not specify what custody level applied to a person at a specific point in time; they indicate only someone’s custody level when the datasets were downloaded. Furthermore, the prison may change someone’s custody level because of disciplinary infractions. It did not make sense, therefore, to include custody level as a predictor variable because custody level can be both predicted by disciplinary infractions and predictive of them.

I knew that three predictor variables—age, years served, and sentencing regime—were likely to have relationships with each other. These relationships were expected. The purpose of regression analyses is to determine how a change in one predictor variable affects the outcome variable, holding all other predictor variables constant. Nonetheless, if some predictor variables are too correlated (for instance, if age and years served are very closely related), that fact can compromise the predictive value of the models. To prevent this, I tested for multicollinearity. Multicollinearity refers to two or more predictor variables being so correlated that their statistical significance is compromised.¹¹⁶ None of the continuous predictor variables or categorical dummy predictor variables had Variance Inflation Factor (VIF) statistics greater than three, nor did any have condition indices greater than

116. Michael Patrick Allen, *Understanding Regression Analysis* 176 (1997).

fifteen. These test results suggest that multicollinearity did not compromise the following models.

Odds Ratios Versus Risk Ratios

Binary logistic regression generates odds ratios, which can be challenging to interpret. An odds ratio provides information about the strength of the relationship between two variables, such as between race and infractions. However, an odds ratio is not the same as relative risk, also called a risk ratio.¹¹⁷ For example, if the odds ratio for a Black person receiving a write-up is 1.24, it is not appropriate to interpret this as “a Black person is 24% more likely to receive a write-up than a white person.” Instead, the 1.24 odds ratio merely tells us that Black people are more likely than white people to receive infractions, but the odds ratio does not tell us the exact percentage difference.¹¹⁸ In populations like this one, where the incidence of an event like a disciplinary write-up is high—defined as greater than 10% of the sample—odds ratios can overstate the magnitude of an effect if they are erroneously interpreted as risk ratios.¹¹⁹

To determine the risk ratio using the odds ratio, I used a formula by Zhang and Yu.¹²⁰ Because many people do not understand the difference between odds and risk ratios,¹²¹ I have included only risk ratios in the body of the main paper to avoid confusion. Risk ratios are more intuitive to interpret. A risk ratio of 1.103 *does* mean that Black people are 10.3% more likely to receive an infraction than white people. In this appendix, I report both the odds ratios and the calculated risk ratios. The odds ratios appear in the tables, and the risk ratios appear in the descriptions under each table.

A. Disparities at Each Stage in the Process

1. Stage One: Write-Ups

For this analysis, I considered only infraction entries at the unit level. A unit is a subset of a prison. I filtered out the disciplinary hearings and ap-

117. The odds ratio is a measure of the effect. If an odds ratio is greater than 1, it means that when a certain independent variable (like race: Black) is present, a certain outcome (like a disciplinary write-up) is more likely. But the odds ratio, unlike the risk ratio, does not tell us how much more likely. Similarly, if an odds ratio is less than 1, it means that when a certain independent variable is present, the likelihood of the outcome decreases, but we do not know by how much. Magdalena Szumilas, *Explaining Odds Ratios*, 19 J. CANADIAN ACAD. OF CHILD AND ADOLESCENT PSYCH. 227, 227 (2010).

118. Liberman, *supra* note 30, at 257.

119. Zhang & Yu, *supra* note 30, at 1690.

120. *Id.*

121. Liberman, *supra* note 30, at 254.

peals entries. These entries contain duplicate data about the date, time, and nature of the alleged infraction. They differ in that they contain information about the outcomes at disciplinary hearings and on appeal, respectively. I also filtered out unit-level infractions with sequence codes greater than one. A sequence code greater than 1 usually meant that the alleged infraction had been charged before but was remanded to the unit for reinvestigation. Members of the sample (N = 21,277) received 47,996 write-ups in 2020. The most common write-ups were for disobeying orders (n = 13,253), substance possession (n = 4,630), profane language (n = 3,554), sexual acts (n = 2,319), and unauthorized leave (n = 2,144). Appendix Table 1 shows the frequency of each infraction type.

Appendix Table 1

Frequency of 2020 Disciplinary Write-Ups for Sample

Name of Infraction Exactly as it Appears in DPS Database	# of Write-Ups Issued	Percentage of Infractions	Cumulative Percentage
Disobey Order	13253	27.6	27.6
Substance Possession	4630	9.6	37.3
Profane Language	3554	7.4	44.7
Sexual Act	2319	4.8	49.5
Unauthorized Leave	2144	4.5	54.0
Lock Tampering	1899	4.0	57.9
Unauthorized Tobacco Use	1636	3.4	61.3
Fighting	1465	3.1	64.4
Threaten to Harm/Injure Staff	1361	2.8	67.2
Weapon Possession	1321	2.8	70.0
High Risk Act	1217	2.5	72.5
Theft of Property	1076	2.2	74.7
Involvement W/Gang or SRG [Security Risk Group]	973	2.0	76.8
No Threat Contraband	969	2.0	78.8
Attempt Class A Offense	923	1.9	80.7
Poss Audio/Video/Image Device	837	1.7	82.5
Attempt Class C Offense	817	1.7	84.2
Assault Person W/Weapon	651	1.4	85.5
Damage State/Anothers Property	595	1.2	86.8

2022]	<i>NORTH CAROLINA CENTRAL UNIVERSITY</i>		31
Unauth Tobacco Non-Persnl Use	583	1.2	88.0
Sell/Misuse Medication	530	1.1	89.1
Interfere W/Staff	447	.9	90.0
Misuse/Unauth-Use Phone/Mail	439	.9	90.9
Refuse Submit/Drug/Breath Test	407	.8	91.8
Fight W/Weapon or Req.Out.Med	367	.8	92.5
Attempt Class B Offense	365	.8	93.3
Assault Staff W/Weapon	300	.6	93.9
Barter/Trade/Loan Money	289	.6	94.5
Possess Excess Stamps	263	.5	95.1
Illegal Cloth/Linen/Sheets	222	.5	95.5
Active Rioter	219	.5	96.0
Create Offensive Condition	216	.5	96.4
Offer/Accept Bribe Staff	170	.4	96.8
Set a Fire	154	.3	97.1
Flood Cell	150	.3	97.4
Asslt Staff W/Unlikely Inj	139	.3	97.7
Assault Staff/Throwing Liquids	131	.3	98.0
Inhale Substance	119	.2	98.2
Verbal Threat	107	.2	98.5
Asslt Other W/Unlikely Inj.	91	.2	98.6
Escape	89	.2	98.8
False Allegations on Staff	81	.2	99.0
Poss Money/Unauthorized Funds	79	.2	99.2
Extortion/Strong Arm	77	.2	99.3
Asslt Inmate/Throwing Liquids	34	.1	99.4
Offer/Accept Bribe Another	34	.1	99.5
Fake Illness	27	.1	99.5
Provoke Assault	26	.1	99.6
Leave/Quit Comm Based Program	25	.1	99.6
Wrk Stoppage/Comm. Work Crew	24	.1	99.7

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Assault Staff W/Sex Int	20	.0	99.7
Theft Canteen Inv/Cash	20	.0	99.8
Forgery	19	.0	99.8
Assault Staff-Instigate/Provok	18	.0	99.8
Detonating Explosives	18	.0	99.9
False Info Class B Offense	16	.0	99.9
Unwanted Communicate w/Victims	12	.0	99.9
False Info Class A Offense	11	.0	100.0
Violate NC Law	8	.0	100.0
Taking Hostage(s)	7	.0	100.0
Legal Assistance	2	.0	100.0
Assault Inmate W/Sex Int	1	.0	100.0
Total	47,996	100%	

To explore disparities in the issuance of write-ups, I determined how many sample members had received at least one write-up in 2020, regardless of the eventual disposition. I dummy-coded this as variable *Write-up2020*, where 0 meant no write-up and 1 meant at least one write-up. Of the sample, 9,259 (43.5%) received no write-ups and 12,018 (56.5%) received at least one write-up. Appendix Tables 2, 3, and 4 show the breakdown of infractions across racial groups in the sample.

Appendix Table 2
Racial Breakdown of Sample

Race	# of People in Sample	% of Sample
White	7,772	36.5%
Black	11,423	53.7%
Latinx	1,361	6.4%
Indigenous	484	2.3%
Other (includes Asian)	237	1.1%
All	21,277	100%

Appendix Table 3
Racial Breakdown of Infractions

Race	# of Write-Ups	% of Total Write-Ups
White	14,891	31%
Black	29,399	61.3%
Latinx	2,048	4.3%
Indigenous	1,286	2.7%
Other (includes Asian)	372	0.8%
All	47,996	100%

Appendix Table 4
Racial Breakdown of Which Members of Sample Received Write-Ups

Race	People Who Received No Write-Ups in 2020	% of Racial Group Who Received No Write-Ups in 2020	People Who Received 1+ Write-Ups in 2020	% of Racial Group Who Received 1+ Write-Ups in 2020
White	3,746	48.2%	4,026	51.8%
Black	4,490	39.3%	6,933	60.7%
Latinx	708	52.0%	653	48.0%
Indigenous	186	38.4%	298	61.6%
Other (include Asian)	129	54.4%	108	45.6%
All	9,259	43.5%	12,018	56.5%

I then used binary logistic regression to examine the relationship between race and write-ups. I controlled for sex, years served, age, and sentencing law. Binary logistic regression was an appropriate tool because I wanted to look at several continuous and categorical predictor variables and a binary dependent variable. The dependent variable is binary because it has two possible outcomes: received no write-ups or received at least one write-up. Appendix Table 5 gives the odds ratios.

Appendix Table 5
Odds Ratios for Write-Up in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 7,772)</i>			
Black (n = 11,423)	1.243***	.032	.000
Latinx (n = 1,361)	.591***	.062	.000
Indigenous (n = 484)	1.314**	.102	.007
Other (n = 237)	.686**	.141	.008
Sex			
<i>(ref: Male: n = 20,100)</i>			
Female (n = 1,177)	.973	.065	.679
Sentencing Law			
<i>(ref: SSA: n = 19,544)</i>			
Pre-FSA (n = 218)	1.749**	.173	.001
FSA (n = 1,515)	.956	.079	.565
Age	.943***	.001	.000
Years Served	.989***	.003	.000
Constant	14.942***	.065	.000
Cox & Snell R ²	.126	--	--
Nagelkerke R ²	.169	--	--
N	21,277	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

Risk Ratios: Black people were 10.3% more likely than white people to receive a write-up. Latinx people were 25% less likely than white people to receive a write-up. Indigenous people were 13% more likely than white people to receive a write-up. People whose races were categorized as other were 18.9% less likely than white people to receive a write-up. I used 51.8% as the baseline probability for calculating risk ratios because 51.8% of white people received disciplinary write-ups.

This model has a Cox & Snell R² value of .126 and a Nagelkerke R² value of .169, suggesting that the model explains between 12.6% and 16.9% of the variance in whether people received write-ups.

For Figure 1, the odds-ratios forest plot on page 10 of the Article, I scaled the two continuous variables—age and years served—by subtracting the mean from each value and then dividing by two times the standard deviation.¹²²

I then considered the 47,996 write-ups and tried to identify factors that might predict a guilty plea (versus entering a plea of not guilty or not entering any plea). I used pleading guilty as the binary dependent variable and years in custody, age, race, and sentencing regime as the predictor variables. Appendix Table 6 gives the odds ratios.

Appendix Table 6
Odds Ratios for Guilty Plea

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White: n = 14,891)</i>			
Black (n = 29,399)	.843***	.024	.000
Latinx (n = 2,048)	.970	.056	.589
Indigenous (n = 1,286)	.840*	.071	.013
Other (n = 372)	.934	.124	.582
Sex			
<i>(ref: Male: n = 45,691)</i>			
Female (n = 2,305)	1.412***	.047	.000
Sentencing Law			
<i>(ref: SSA: n = 46,516)</i>			
Pre-FSA (n = 177)	2.691***	.207	.000
FSA (n = 1,303)	1.448***	.091	.000
Age	.999	.001	.353
Years Served	.969***	.003	.000
Constant	.394***	.046	.000
Cox & Snell R ²	.008	--	--
Nagelkerke R ²	.012	--	--
N	47,996	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

122. See Andrew Gelman, *Scaling Regression Inputs by Dividing by Two Standard Deviations*, 27 STAT. IN MED. 2965 (2008).

Risk Ratios: Black people were 12.3% less likely than white people to plead guilty. Indigenous people were 12.5% less likely than white people to plead guilty. There were no statistically significant effects for Latinx people or people whose races were categorized as other. I used 25% as the baseline probability for calculating risk ratios because 25% of white people pleaded guilty at this level.

I then considered only the 37,149 write-ups to which people did not plead guilty. I did not include write-ups to which people pleaded guilty because those usually resulted in a unit-level guilty finding, and I did not want to duplicate the previous analysis. I tried to identify factors that might predict a favorable outcome (defined as counseled, charges dismissed, or not-guilty finding) at the unit level for these cases. I used “favorable outcome” as the binary dependent variable. If a case was counseled, dismissed, or resulted in a not-guilty finding, I coded that as 1 for a favorable outcome. If a case was referred to a disciplinary hearing, resulted in a guilty finding, or had a missing verdict, coded that as 0. I used years served, age, race, and sentencing regime as the predictor variables. Appendix Table 7 gives the odds ratios.

Appendix Table 7
Odds Ratios for Favorable Unit-Level Outcomes

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White: n = 11,156)</i>			
Black (n = 23,143)	.961	.028	.164
Latinx (n = 1,556)	1.183**	.064	.009
Indigenous (n = 1,009)	.985	.080	.846
Other (n = 285)	1.001	.145	.997
Sex			
<i>(ref: Male: n = 35,539)</i>			
Female (n = 1,610)	2.354***	.053	.000
Sentencing Law			
<i>(ref: SSA: n = 35,925)</i>			
Pre-FSA (n = 142)	1.097	.219	.673
FSA (n = 1082)	1.385***	.088	.000
Age	1.021***	.001	.000
Years Served	.982***	.003	.000
Constant	.147***	.054	.000
Cox & Snell R ²	.014	--	--
Nagelkerke R ²	.021	--	--
N	37,149	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

Risk Ratios: Latinx people were 13.4% more likely than white people to receive a favorable outcome at this level. There were no statistically significant effects for the other racial groups. I used 23.7% as the baseline probability for calculating risk ratios because 23.7% of white people received a favorable outcome at this level.

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2. Stage Two: Disciplinary Hearings

I examined the 28,953 cases (of the original 47,996) that went to disciplinary hearings and had sequence codes of 1 (meaning that this was the first time the alleged infraction in question went to a hearing).

I used binary logistic regression to examine the relationship between race and pleading guilty. I controlled for sex, years served, age, and sentencing regime. Appendix Table 8 gives the odds ratios.

Appendix Table 8

Odds Ratios for Guilty Pleas at Disciplinary Hearings in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 8,512)</i>			
Black (n = 18,254)	.638***	.028	.000
Latinx (n = 1,180)	.806**	.064	.001
Indigenous (n = 786)	.877 ⁺	.077	.087
Other (n = 221)	.666**	.138	.003
Sex			
<i>(ref: Male, n = 27,975)</i>			
Female (n = 978)	.927	.067	.254
Sentencing Law			
<i>(ref: SSA, n = 28,047)</i>			
Pre-FSA (n = 110)	3.327***	.210	.000
FSA (n = 796)	1.286**	.089	.005
Age	.991***	.001	.000
Years Served	.971***	.003	.000
Constant	2.862***	.053	.000
Cox & Snell R ²	.022	--	--
Nagelkerke R ²	.030	--	--
N	28,953	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

Risk Ratios: Black people were 16.9% less likely than white people to plead guilty. Latinx people were 8% less likely than white people to plead guilty. People whose races were categorized as other were 15.3% less likely than white people to plead guilty. Indigenous people were 4.8% less likely than white people to plead guilty, although this effect was significant only at the $p < .10$ level. I used 64.1% as the baseline probability for calculating risk ratios because 64.1% of white people pleaded guilty in a disciplinary hearing.

I narrowed the 28,953 cases down to only the 12,512 cases for which people pleaded not guilty or did not enter a plea. I refer to these as contested disciplinary hearings. I did not include those cases for which people pleaded guilty because all guilty pleas resulted in a guilty finding by the DHO, and I did not want to duplicate the previous analysis.

Of the 12,512 cases that I considered, 6,314 (50.5%) resulted in guilty verdicts at the disciplinary hearing. I used binary logistic regression to examine the relationship between race and guilty verdicts. I controlled for sex, years served, age, and sentencing regime. Appendix Table 9 gives the odds ratios.

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Appendix Table 9
Odds Ratios for Guilty Verdicts at Contested Disciplinary Hearings in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 3,053)</i>			
Black (n = 8,575)	1.164***	.043	.000
Latinx (n = 476)	1.090	.099	.388
Indigenous (n = 307)	1.177	.121	.176
Other (n = 101)	1.025	.204	.903
Sex			
<i>(ref: Male, n = 12,101)</i>			
Female (n = 411)	.202***	.133	.000
Sentencing Law			
<i>(ref: SSA, n = 12,005)</i>			
Pre-FSA (n = 52)	1.187	.311	.582
FSA (n = 455)	.901	.119	.380
Age	.996*	.002	.036
Years Served	1.013**	.004	.001
Constant	1.023	.080	.777
Cox & Snell R ²	.019	--	--
Nagelkerke R ²	.025	--	--
N	12,512	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

Risk Ratios: Black people were 7.5% more likely than white people to be found guilty in contested disciplinary hearings. There were no statistically significant effects for the other racial groups. I used 50.5% as the baseline probability for calculating risk ratios because 50.5% of white people were found guilty at contested disciplinary hearings.

3. Stage Three: Disciplinary Appeals

I examined the 6,314 cases to which people did not plead guilty but that resulted in guilty verdicts at disciplinary hearings. People appealed 2,638 (41.8%) of these decisions. I used binary logistic regression to evaluate whether there was a relationship between race and deciding to appeal. I controlled for sex, age, years served, and sentencing law. Appendix Table 10 gives the odds ratios.

Appendix Table 10

Odds Ratios for Deciding to Appeal After Contested Disciplinary Hearings

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 1,421)</i>			
Black (n = 4,444)	.927	.063	.226
Latinx (n = 241)	1.017	.142	.903
Indigenous (n = 159)	.785	.173	.162
Other (n = 49)	1.048	.294	.872
Sex			
<i>(ref: Male, n = 6,244)</i>			
Female (n = 70)	1.405	.243	.161
Sentencing Law			
<i>(ref: SSA, n = 6,037)</i>			
Pre-FSA (n = 33)	.616	.395	.220
FSA (n = 244)	.953	.163	.767
Age	1.023***	.003	.000
Years Served	.987*	.005	.015
Constant	.371***	.114	.000
Cox & Snell R ²	.011	--	--
Nagelkerke R ²	.015	--	--
N	6,314	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

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Risk Ratios: There were no statistically significant effects for any racial groups.

I examined the 2,985 decisions (of the 28,953 disciplinary hearings) that were appealed to the Commissioner of Prisons and had sequence codes of 1. This figure (2,985) is slightly higher than the figure considered in the previous analysis (2,638) because the previous analysis considered only cases without guilty pleas at the disciplinary-hearing stage. In contrast, this analysis also considers guilty pleas entered for the first time on appeal. I used binary logistic regression to evaluate whether there was a relationship between race and guilty plea on appeal. I controlled for sex, age, years served, and sentencing law. Appendix Table 11 gives the odds ratios.

Appendix Table 11
Odds Ratios for Guilty Plea on Appeal in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 715)</i>			
Black (n = 2,062)	.923	.158	.613
Latinx (n = 114)	.963	.359	.916
Indigenous (n = 70)	.680	.534	.469
Other (n = 24)	.443	1.034	.432
Sex			
<i>(ref: Male, n = 2946)</i>			
Female (n = 39)	.871	.609	.820
Sentencing Law			
<i>(ref: SSA, n = 2,850)</i>			
Pre-FSA (n = 12)	.000	11571.224	.999
FSA (n = 123)	2.527*	.405	.022
Age	.975**	.008	.003
Years Served	.989	.015	.454
Constant	.245***	.299	.000
Cox & Snell R ²	.006	--	--
Nagelkerke R ²	.015	--	--
N	2,985	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

There were no statistically significant relationships between race and guilty pleas on appeal.

I removed appeal cases for which the person entered a guilty plea (n = 248) because, predictably, all guilty pleas except one resulted in guilty verdicts on appeal. (The one exception went to reinvestigation). There remained 2,737 cases. I used binary logistic regression to examine the relationship between race and guilty verdicts. I controlled for sex, years served, age, and sentencing regime. Appendix Table 12 shows the odds ratios.

Appendix Table 12
Odds Ratios for Guilty Verdict at Contested Appeal

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White: n = 653)</i>			
Black (n = 1,891)	.699	.270	.186
Latinx (n = 104)	2.985	1.034	.290
Indigenous (n = 66)	.355*	.525	.049
Other (n = 23)	.594	1.058	.622
Sex			
<i>(ref: Male: n = 2,701)</i>			
Female (n = 36)	1.213	1.023	.850
Sentencing Law			
<i>(ref: SSA: n = 2,615)</i>			
Pre-FSA (n = 12)	66402316.2	11587.436	.999
FSA (n = 110)	1.460	.702	.590
Age	1.000	.012	.999
Years Served	.998	.020	.912
Constant	34.974***	.468	.000
Cox & Snell R ²	.003	--	--
Nagelkerke R ²	.012	--	--
N	2,737	--	--

+ p < .10, * p < .05, ** p < .01, *** p < .001

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Risk Ratios: Indigenous people were 4.8% less likely than white people to be found guilty at contested appeals. There were no statistically significant effects for the other racial groups. I used 97.2% as the baseline probability for calculating risk ratios because 97.2% of white people were found guilty on appeal.

4. Stage Four: Sanctions

I limited my analysis to the most common offense: disobeying orders. I focused only on this type of infraction because I wanted to see how people accused of the same conduct fared differently depending on their races. I also limited my analysis to all write-ups with sequence codes of 1 and to which people pleaded guilty and were adjudged guilty at the unit level ($n = 3,599$). I used OLS regression to examine the effect of race on the number of days in disciplinary segregation, days of lost good time, days of suspended privileges, and extra work-duty hours people received as sanctions. I controlled for age, years in custody, sex, and sentencing law. Appendix Tables 13, 14, 15, and 16 show the effects of race on each of these outcomes.

Appendix Table 13

Multiple Regression Predicting Days of Disciplinary Segregation

Variable	Unstandardized B	Unstandardized S.E.	Standardized B	t	Sig.
Race					
(ref: White, n = 1,091)					
Black (n = 2,249)	-.500 ⁺	.286	-.032	- 1.745	.081
Latinx (n = 140)	-.522	.684	-.013	-.763	.446
Indigenous (n = 90)	.179	.829	.004	.216	.829
Other (n = 29)	-1.274	1.423	-.015	-.895	.371
Sex					
(ref: Male: n = 3,327)					
Female (n = 272)	-.518	.480	-.018	-1.079	.281
Sentencing Law					
(ref: SSA: n = 3,514)					
Pre- FSA (n = 12)	.386	2.378	.003	.162	.871
FSA (n = 73)	.016	1.110	.000	.014	.988
Age (Years)	.001	.014	.001	.058	.954
Years Served	.037	.030	.029	1.229	.219
Constant	11.872***	.520	--	22.818	.000
R ²	.002	--	--	--	--
Adjusted R ²	.000	--	--	--	--
N	3,599	--	--	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

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The model predicted that Black people found guilty of disobeying orders at the unit level would experience 0.5 fewer days of disciplinary segregation than their white counterparts ($p < .10$). There were no other statistically significant relationships between predictor variables and days of disciplinary segregation.

Appendix Table 14
*Multiple Regression Predicting Days of Lost Good Time*¹²³

Variable	Unstandardized B	Unstandardized S.E.	Standardized B	t	Sig.
Race					
(ref: White, n = 1,091)					
Black (n = 2,249)	.783 ⁺	.428	.033	1.829	.067
Latinx (n = 140)	1.241	1.023	.021	1.214	.225
Indigenous (n = 90)	.374	1.239	.005	.302	.763
Other (n = 29)	.820	2.126	.006	.386	.700
Sex					
(ref: Male: n = 3,327)					
Female (n = 272)	-2.458**	.718	-.057	-3.424	.001
Sentencing Law					
(ref: SSA: n = 3,514)					
Pre-FSA (n = 12)	3.879	3.554	.020	1.091	.275
FSA (n = 73)	.613	1.658	.008	.370	.711
Age (Years)	.119***	.021	.108	5.620	.000
Years Served	.116	.045	.061	2.561	.010

123. Please note that people lost good time as a sanction even when the loss would not change their sentence length or release date. This sanction appears to be administered regardless of the sentencing regime that applies to someone's case. *See supra* note 42.

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Constant	5.095***	.778	--	6.552	.000
R ²	.029	--	--	--	--
Adjusted	.026	--	--	--	--
R ²					
N	3,599	--	--	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

The model predicted that Black people found guilty of disobeying orders at the unit level would lose 0.783 more days of good time than white people ($p < .10$). The model predicted that females would lose 2.46 fewer days of good time than males ($p < .01$). Finally, the model predicted that for each year older someone was, the person would lose .119 more days of good time ($p < .001$). There were no other statistically significant relationships between predictor variables and days of lost good time.

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Appendix Table 15
Multiple Regression Predicting Days of Suspended Privileges

Variable	Unstandardized B	Unstandardized S.E.	Standardized B	t	Sig.
Race					
(ref: White, n = 1,091)					
Black (n = 2,249)	-1.537*	.705	-.040	-2.181	.029
Latinx (n = 140)	-2.104	1.684	-.022	-1.249	.212
Indigenous (n = 90)	-3.970 ⁺	2.040	-.033	-1.945	.052
Other (n = 29)	2.285	3.502	.011	.653	.514
Sex					
(ref: Male: n = 3,327)					
Female (n = 272)	-7.480***	1.182	-.106	-6.328	.000
Sentencing Law					
(ref: SSA: n = 3,514)					
Pre-FSA (n = 12)	8.352	5.853	.026	1.427	.154
FSA (n = 73)	.706	2.731	.005	.259	.796
Age (Years)					
Years Served	.036	.075	.012	.488	.626
Constant	41.568***	1.281	--	32.461	.000
R ²	.014	--	--	--	--
Adjusted R ²	.012	--	--	--	--
N	3,599	--	--	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

The model predicted that Black people found guilty of disobeying orders at the unit level would receive 1.537 fewer days of suspended privileges than white people ($p < .05$) and that Indigenous people would receive 3.970 fewer days of suspended privileges than white people ($p < .10$). The model also predicted that females would receive 7.48 fewer days of suspended privileges than males ($p < .001$). There were no other statistically significant relationships between predictor variables and days of suspended privileges.

Appendix Table 16
Multiple Regression Predicting Extra Work-Duty Hours

Variable	Unstandardized B	Unstandardized S.E.	Standardized B	t	Sig.
Race					
(ref: White, n = 1,091)					
Black (n = 2,249)	-.940*	.462	-.037	-2.036	.042
Latinx (n = 140)	-4.040***	1.103	-.064	-3.663	.000
Indigenous (n = 90)	.132	1.336	.002	.099	.922
Other (n = 29)	-1.123	2.293	-.008	-.490	.624
Sex					
(ref: Male: n = 3,327)					
Female (n = 272)	-3.178***	.774	-.069	-4.107	.000
Sentencing Law					
(ref: SSA: n = 3,514)					
Pre-FSA (n = 12)	3.916	3.832	.018	1.022	.307
FSA (n = 73)	.296	1.788	.003	.166	.868
Age (Years)	.022	.023	.019	.970	.332

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Years Served	-.015	.049	-.008	-.316	.752
Constant	29.391***	.838	--	35.056	.000
R ²	.009	--	--	--	--
Adjusted R ²	.007	--	--	--	--
N	3,599	--	--	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

The model predicted that Black people would receive 0.94 fewer extra work-duty hours than white people ($p < .05$) and that Latinx people would receive 4.04 fewer extra work-duty hours than white people ($p < .001$). The model also predicted that females would receive 3.178 fewer extra work-duty hours than males ($p < .001$). There were no other statistically significant relationships between predictor variables and extra work-duty hours.

B. Disparities in Overall Outcomes

1. Final Dispositions After Write-Ups

For each of the write-ups in the INMT9CF1 dataset, I identified the final disposition in the last entry corresponding to that write-up. This final disposition might represent the unit-level decision, the disciplinary-hearing decision, the appeal decision, or a subsequent decision if there was a reinvestigation. I used binary logistic regression to evaluate the effect of race on the final disposition (guilty versus some other outcome), controlling for sex, sentencing law, age, and years served. This analysis included 48,936 alleged infractions. This total is higher than the 47,996 write-ups considered in the unit-level analysis. That is because the unit-level analysis considered only those write-ups with sequence codes of 1, meaning that it was the first time the unit looked at the write-ups in question. At times, when a reinvestigation was ordered, the prison brought new charges, which is why the analysis of final outcomes includes 48,936 infractions. Appendix Table 17 shows the odds ratios.

Appendix Table 17
Odds Ratios for Final Guilty Verdict

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 15,143)</i>			
Black (n = 30,013)	.890***	.023	.000
Latinx (n = 2,095)	.901 ⁺	.053	.050
Indigenous (n = 1,304)	.963	.066	.571
Other (n = 381)	.849	.115	.156
Sex			
<i>(ref: Male: n = 46,576)</i>			
Female (n = 2,360)	.510***	.044	.000
Sentencing Law			
<i>(ref: SSA: n = 47,423)</i>			
Pre-FSA (n = 181)	1.957***	.188	.000
FSA (n = 1,332)	.912	.073	.206
Age	.984***	.001	.000
Years Served	.999	.002	.561
Constant	5.282***	.044	.000
Cox & Snell R ²	.010	--	--
Nagelkerke R ²	.015	--	--
N	48,936	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

Risk Ratios: Black people were 3.2% less likely than white people to receive eventual guilty dispositions after a write-up was issued. Latinx people were 2.8% less likely than white people to be found guilty, although this effect was significant only at the p < .10 level. There was no statistically significant effect for Indigenous people or people whose races were categorized as other. I used 73.5% as the baseline probability for calculating risk ratios because 73.5% of write-ups issued to white people resulted in eventual guilty verdicts.

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2. Sanctions

To understand average disparities in sanctions, I examined four variables from the INMT9CF1, aggregating them with the INMT4AA1 dataset. The four variables were (1) *CIDRACNF* (days of disciplinary segregation), (2) *CIDRDAYS* (good time lost due to infraction), (3) *SUSPDAYS* (days of suspended privileges), and (4) *XDUTYHRS* (extra work-duty hours). I filtered out duplicated sanctions for the same offense in the INMT9CF1 dataset to avoid double-counting when the same sanction was listed twice for the same alleged offense (for example, at the disciplinary-hearing level and then upheld at the appeal). I considered all 21,277 members of the sample, including those who received no infractions in 2020. Appendix Tables 18, 19, 20, and 21 give the average sanctions across racial groups.

Appendix Table 18

Average Days of Disciplinary Segregation

Race	Average Days
White (n = 7,772)	17.25
Black (n = 11,423)	24.48
Latinx (n = 1,361)	13.91
Indigenous (n = 484)	25.31
Other (n = 237)	14.76
All (N = 21,277)	21.07

Appendix Table 19

Average Days of Lost Good Time

Race	Average Days
White (n = 7,772)	16.37
Black (n = 11,423)	24.45
Latinx (n = 1,361)	13.81
Indigenous (n = 484)	20.07
Other (n = 237)	15.81
All (N = 21,277)	20.62

Appendix Table 20
Average Days of Suspended Privileges

Race	Average Days
White (n = 7,772)	62.40
Black (n = 11,423)	87.69
Latinx (n = 1,361)	50.83
Indigenous (n = 484)	88.10
Other (n = 237)	54.18
All (N = 21,277)	75.73

Appendix Table 21
Average Extra Work-Duty Hours

Race	Average Hours
White (n = 7,772)	44.67
Black (n = 11,423)	60.49
Latinx (n = 1,361)	35.41
Indigenous (n = 484)	61.01
Other (n = 237)	36.79
All (N = 21,277)	52.85

I used binary logistic regression to examine the effect of race on the receipt of four types of sanctions: (1) disciplinary segregation, (2) lost good time, (3) suspended privileges, and (4) extra work-duty hours. I controlled for sex, sentencing law, age, and years in custody. Appendix Tables 22, 23, 24, and 25 show the odds ratios.

Appendix Table 22
Odds Ratios for Receiving Disciplinary Segregation in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 7,772)</i>			
Black (n = 11,423)	1.136***	.033	.000
Latinx (n = 1,361)	.524***	.066	.000
Indigenous (n = 484)	1.435***	.100	.000
Other (n = 237)	.651**	.149	.004
Sex			
<i>(ref: Male: n = 20,100)</i>			
Female (n = 1,177)	.767***	.066	.000
Sentencing Law			
<i>(ref: SSA: n = 19,544)</i>			
Pre-FSA (n = 218)	1.651*	.195	.010
FSA (n = 1,515)	.819*	.088	.024
Age	.936***	.002	.000
Years Served	.998	.003	.524
Constant	10.569** *	.065	.000
Cox & Snell R ²	.135	--	--
Nagelkerke R ²	.181	--	--
N	21,277	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

Risk Ratios: Black people were 7.9% more likely than white people to receive disciplinary segregation in 2020. Latinx people were 35.8% less likely than white people to receive disciplinary segregation. Indigenous people were 22.9% more likely than white people to receive disciplinary segregation. People whose races were categorized as other were 24.8% less likely than white people to receive disciplinary segregation. I used 38.5% as the baseline probability for calculating risk ratios because 38.5% of white people in the sample lost good time.

For Figure 2, the odds-ratios forest plot shown on page 16 of the Article, I scaled the two continuous variables—age and years served—by subtracting the mean from each value and then dividing by two times the standard deviation.¹²⁴

124. See Gelman, *supra* note 122.

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Appendix Table 23
Odds Ratios for Losing Good Time Due to Infractions in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 7,772)</i>			
Black (n = 11,423)	1.169***	.033	.000
Latinx (n = 1,361)	.557**	.067	.000
Indigenous (n = 484)	1.350**	.099	.002
Other (n = 237)	.715*	.150	.025
Sex			
<i>(ref: Male: n = 20,100)</i>			
Female (n = 1,177)	.816**	.066	.002
Sentencing Law			
<i>(ref: SSA: n = 19,544)</i>			
Pre-FSA (n = 218)	1.218	.213	.353
FSA (n = 1,515)	.843 ⁺	.089	.055
Age	.944***	.002	.000
Years Served	.996	.003	.135
Constant	6.622***	.064	.000
Cox & Snell R ²	.111	--	--
Nagelkerke R ²	.151	--	--
N	21,277	--	--

⁺ p < .10, * p < .05, ** p < .01, *** p < .001

Risk Ratios: Black people were 10.3% more likely than white people to lose good time in 2020. Latinx people were 33.9% less likely than white people to lose good time. Indigenous people were 20.1% more likely than white people to lose good time. People whose races were categorized as other were 20.5% less likely than white people to lose good time. I used 35.4% as the baseline probability for calculating risk ratios because 35.4% of white people in the sample lost good time.

Appendix Table 24
Odds Ratios for Suspended Privileges in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 7,772)</i>			
Black (n = 11,423)	1.150***	.033	.000
Latinx (n = 1,361)	.520***	.064	.000
Indigenous (n = 484)	1.356**	.100	.002
Other (n = 237)	.626**	.147	.001
Sex			
<i>(ref: Male: n = 20,100)</i>			
Female (n = 1,177)	.831**	.065	.004
Sentencing Law			
<i>(ref: SSA: n = 19,544)</i>			
Pre-FSA (n = 218)	1.960***	.188	.000
FSA (n = 1,515)	.914	.085	.291
Age	.938***	.002	.000
Years Served	.990***	.003	.000
Constant	12.583**	.065	.000
	*		
Cox & Snell R ²	.139	--	--
Nagelkerke R ²	.186	--	--
N	21,277	--	--

+ p < .10, * p < .05, ** p < .01, *** p < .001

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Risk Ratios: Black people were 8.1% more likely than white people to experience suspended privileges in 2020. Latinx people were 34.6% less likely than white people to experience suspended privileges. Indigenous people were 17.7% more likely than white people to experience suspended privileges. People whose races were categorized as other were 25.5% less likely than white people to experience suspended privileges. I used 42.8% as the baseline probability for calculating risk ratios because 42.8% of white people in the sample experienced suspended privileges.

Appendix Table 25

Odds Ratios for Extra Work-Duty Hours in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
<i>(ref: White, n = 7,772)</i>			
Black (n = 11,423)	1.153***	.033	.000
Latinx (n = 1,361)	.520***	.065	.000
Indigenous (n = 484)	1.363**	.100	.002
Other (n = 237)	.608**	.148	.001
Sex			
<i>(ref: Male: n = 20,100)</i>			
Female (n = 1,177)	.868*	.065	.030
Sentencing Law			
<i>(ref: SSA: n = 19,544)</i>			
Pre-FSA (n = 218)	1.887**	.191	.001
FSA (n = 1,515)	.913	.086	.290
Age	.937**	.002	.000
Years Served	.991**	.003	.001
Constant	12.779**	.065	.000
	*		
Cox & Snell R ²	.141	--	--
Nagelkerke R ²	.189	--	--
N	21,277	--	--

+ p < .10, * p < .05, ** p < .01, *** p < .001

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Risk Ratios: Black people were 8.2% more likely than white people to receive extra work-duty hours in 2020. Latinx people were 34.6% less likely than white people to receive extra work-duty hours. Indigenous people were 18% more likely than white people to receive extra work-duty hours. People whose races were categorized as other were 27% less likely than white people to receive extra work-duty hours. I used 42.6% as the baseline probability for calculating risk ratios because 42.6% of white people in the sample received extra work-duty hours.