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Race and Prison Discipline: A Study of North Carolina Prisons

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RACE AND PRISON DISCIPLINE: A STUDY OF NORTH CAROLINA STATE PRISONS

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Black and Indigenous people receive disproportionate shares of disciplinary write-ups at state prisons in North Carolina. They experience more sanctions as a result. In this Article, I examine publicly available 2020 data from the North Carolina Department of Public Safety. I use two statistical techniques: binary logistic regression and multiple (ordinary least squares) regression. I explore racial disparities at four discrete stages in the disciplinary process: (1) write-ups, (2) hearings, (3) appeals, and (4) sanctions. I also examine disparities in overall disciplinary outcomes. A methodological appendix accompanies this Article.

In 2020, Black incarcerated people were 10.3% more likely to receive at least one disciplinary write-up than their white counterparts were. Indigenous people were 13% more likely to receive a write-up than their white counterparts were. Latinx people and people of other races were less likely to receive disciplinary write-ups than their white counterparts were. Black and Indigenous people therefore received more formal sanctions than white people did. In 2020, Black people were 8% more likely than white people to receive disciplinary segregation (a form of solitary confinement). Indigenous people were 23% more likely than white people to receive disciplinary segregation.

These findings support recommendations from the 2020 report by North Carolina Governor Cooper's Task Force for Racial Equity in Criminal Justice. Task Force recommendations 105, 107, and 109 call for reforms related to disciplinary infractions and sanctions. The findings also support recommendation 85, which promotes racial equity in the parole-review process. Disciplinary infractions inform how the Parole Commission evaluates candidates for parole, meaning that disparities in the infractions process may later manifest as disparities in the parole-review process.

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INTRODUCTION

In 2020, correctional officers in North Carolina 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]

Also in 2020, the North Carolina Governor's Task Force for Racial Equity in Criminal Justice ("Task Force") issued a suite of recommendations to combat racism within the state's criminal legal system.[3] The Task Force recommended reforming the prison-discipline process and increasing prison staff's sensitivities to racial bias.

Receiving a disciplinary infraction can have a variety of consequences for an incarcerated person's experience in prison. People found guilty of

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

2. *Id*. See page 5 of methodological appendix.

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

disciplinary infractions may be held in disciplinary segregation (a punitive form of solitary confinement) or may be given extra unpaid job duties.[4] They may be moved to more restrictive levels of custody—for example, from minimum to medium custody, or from medium to close custody. An infraction may lead the prison to take away an individual's "privileges," such as the opportunity to call or visit with loved ones or the ability to withdraw funds to spend at the prison canteen.[5]

Furthermore, a disciplinary infraction may prolong a person's sentence. People may lose sentence credits, like "gain time" or "good time," thereby extending the time they spend in prison.[6] The precise effect on a person's sentence varies based on the sentencing regime.[7]

Finally, disciplinary infractions can limit an incarcerated person's chances of being released on parole. The North Carolina Parole Commission, the body that decides whether parole-eligible people will be released, considers disciplinary infractions in direct and indirect ways. First, Parole Commissioners in North Carolina examine people's disciplinary records when deciding whether they will be granted parole.[8] Second, the Parole Commission rarely grants parole to anybody not held in a minimum-security facility.[9] A disciplinary infraction may reduce someone's chances of being granted parole if the infraction results in the person being moved out of a minimum-security facility or never reaching one in the first place.

Many social scientists have found a relationship between race and prison infractions.[10] Researchers have tended to interpret these findings as evidence of different rates of rule-breaking between racial groups.[11] That type

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

5. *Id.*

6. *Id.* at 54, 61.

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

8. 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, 50–51 (1999).

9. *Id.*

10. *See, e.g.,* Jon Sorensen et al., *Patterns of Rule-Violating Behaviors and Adjustment to Incarceration among Murderers*, 78 THE PRISON J. 222 (1998); Liqun Cao et al., *Prison Disciplinary Tickets: A Test of the Deprivation and Importation Models*, 25 J. CRIM. JUST. 103 (1997); Beth Huebner, *Administrative Determinants of Inmate Violence: A Multilevel Analysis*, 31 J. CRIM. JUST. 107 (2003); Heidi S. Bonner et al., *Race, ethnicity, and prison discipline*, 15 J. ETHNICITY CRIM. JUST. 36 (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*, unpublished PhD Dissertation (2019).

11. *See, e.g.,* Jon Sorensen et al., *Patterns of Rule-Violating Behaviors and Adjustment to Incarceration among Murderers*, 78 THE PRISON J. 222 (1998); Liqun Cao et al., *Prison Disciplinary Tickets: A Test of the Deprivation and Importation Models*, 25 J. CRIM. JUST. 103 (1997); Beth Huebner, *Admin-*

of analysis fails to consider the role that racial bias may play.[12] Previous studies are also limited in that many researchers used only white and Black or white and non-white as the categories for analysis.[13] The analysis I present in this Article is the first published analysis of North Carolina infractions data that considers Indigenous people and Latinx people as categories distinct from Black, White, and Other.[14] It is also the first analysis of North Carolina infractions data from within the last five years.[15] Finally, whereas previous research generally considered only the relationship between race and initial disciplinary write-ups,[16] the analysis presented here considers various levels at which disparities might be introduced: at write-up issuance, at guilty pleas to write-ups, at disciplinary hearings, at appeal, and at the administration of sanctions. Looking at each level is important because identifying the precise moment or moments when disparities might be introduced might allow us to design interventions that target those specific disparities.

In Part One of this Article, I give an overview of the infractions process in North Carolina state prisons. I divide the process into four stages: write-ups, hearings, appeals, and sanctions. In Part Two, I use data from the North Carolina Department of Public Safety (DPS) to investigate how race and other variables explain how the disciplinary process proceeds. I use binary logistic regression and multiple linear regression, which are statistical techniques that control for other variables to determine the effect of one variable (race) on the likelihood of an outcome (disciplinary infractions). I find that Black and Indigenous people were more likely to receive write-ups in 2020 than their white counterparts were. Black and Indigenous peo-

istrative Determinants of Inmate Violence: A Multilevel Analysis, 31 J. CRIM. JUST. 107 (2003); Heidi S. Bonner et al., *Race, ethnicity, and prison discipline*, 15 J. ETHNICITY CRIM. JUST. 36 (2017).

12. *Id.*

13. *See, e.g.*, Jon Sorensen et al., *Patterns of Rule-Violating Behaviors and Adjustment to Incarceration among Murderers*, 78 THE PRISON J. 222 (1998); Liqun Cao et al., *Prison Disciplinary Tickets: A Test of the Deprivation and Importation Models*, 25 J. CRIM. JUST. 103 (1997).

14. The data did not allow me to consider "Asian" as a category distinct from "Other" because the low number of Asian incarcerated people would not yield statistically significant results independently.

15. For an analysis of NC infractions data from 1980–2016, *see* Bridget Brew, *The Keepers and the Kept: Three Essays Investigating the Importance of Race During Confinement*, unpublished PhD Dissertation (2019), at https://ecommons.cornell.edu/bitstream/handle/1813/67226/Brew_cornellgrad_0058F_11438.pdf?sequence=1&isAllowed=y (finding that Black people received more infractions on average than their white counterparts and were more likely to receive an infraction in a given year than their white counterparts).

16. One exception to this is Bridget Brew, *The Keepers and the Kept: Three Essays Investigating the Importance of Race During Confinement*, unpublished PhD Dissertation (2019), at https://ecommons.cornell.edu/bitstream/handle/1813/67226/Brew_cornellgrad_0058F_11438.pdf?sequence=1&isAllowed=y (examining the relationships between race and receipt of infractions, race and being found guilty of infractions, and race and sanctions).

ple received more sanctions—such as disciplinary segregation, lost sentence credits, lost privileges, and extra duty hours—as a result. In Part Three, I caution against inferring from these findings that different racial groups commit infractions at different rates. I offer two alternate explanations for these racial disparities: explicit racial bias and implicit racial bias. I consider how previous research into bias in the school, policing, and courtroom settings might help explain the disparities identified in this Article. Finally, in Part Four, I explain how the findings I present here support four of the Governor's Task Force's recommendations related to prison discipline and parole.

I. STAGES OF THE PRISON DISCIPLINARY PROCESS[17]

Please note that the raw data suggest that there is considerable variation in how cases progress through the disciplinary process, so this overview should be read as a general outline to which there are exceptions.

<table>
<tr><td>Stage 1: Unit Write-Up</td><td colspan="2">• Prison staff or other person reports suspected wrongdoing. The prison conducts an investigation.
• Supervisor decides whether disciplinary action is appropriate and may issue formal report.
• Prison staff present the incarcerated person with the charges, and the incarcerated person may plead guilty or not guilty.</td></tr>
<tr><td rowspan="2">Stage 2: Disciplinary Hearing</td><td><u>Plea of not guilty:</u>
• The incarcerated person appears before a disciplinary hearing officer (DHO).
• DHO decides whether to find someone guilty, find someone not guilty, order a re-investigation, or dismiss the charges.
• If the person is found guilty, DHO decides sanctions. The incarcerated person can appeal in writing within fifteen days.
• If the person is found not guilty or if the charges are dismissed, prison staff cannot appeal.</td><td><u>Guilty plea:</u>
• The disciplinary hearing officer (DHO) decides what sanctions the prison should administer.
• Pleading guilty usually leads to reduced sanctions.
• Nobody may appeal after pleading guilty.
• See Stage 4: Sanctions.</td></tr>
</table>

17. Information in this section comes from: N.C. DEP'T OF PUB SAFETY, HANDBOOK FOR FRIENDS AND FAMILIES OF OFFENDERS, 53–54 (2020), https://files.nc.gov/ncdps/documents/files/Prisons_FamilyFriends-Handbook_FINAL_EN_web.pdf; N.C. DEP'T OF PUB SAFETY, OFFENDER DISCIPLINARY PROCEDURES (2020), https://files.nc.gov/ncdps/B-.0200_11_03_20.pdf; 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, 50–51 (1999); N.C. DEP'T OF PUB SAFETY, *Transition Services*, https://www.ncdps.gov/adult-corrections/prisons/transition-services (last visited Feb. 9, 2021).

Stage 3: Appeal	Appeal:
	• Sanctions like restrictive housing are imposed immediately after the disciplinary hearing, irrespective of pending appeal.
	• The appeal is reviewed by the Commissioner of Prisons or their designee, who reviews the records and decides to:
	  • Approve the DHO's guilty verdict,
	  • Order a re-investigation or re-hearing, or
	  • Dismiss the case.
		No appeal:
		• Sanctions are imposed.
		• See *Stage 4: Sanctions*.

Stage 4: Sanctions	Automatic consequences:
	• The infraction goes on formal, publicly accessible OPUS "offender profile" record.
	• The incarcerated person is charged a $10.00 fee per disciplinary report that ends in a guilty disposition.
	Formal sanctions may include:
	• Being moved to disciplinary segregation.
	• 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.
	(DPS outlines maximum days of sanctions for each offense type in their Offender Disciplinary Procedures. There is some room for discretion, as people may be punished for less than the maximum.)
	Other consequences may include:
	  • Reduced chance of being released on parole (if parole-eligible).
	  • Reduced chance of becoming part of work release, community leave, or home leave.	

II. EXAMINING RACIAL DISPARITIES

The 21,277 people in the sample[18] received 47,996 write-ups in 2020. The most common write-ups were for disobeying orders (27.6% of write-ups), substance possession (9.6%), profane language (7.4%), sexual acts[19] (4.8%), and unauthorized leave (4.5%).

18. For more information about how I restricted this sample, see page 1 of the methodological appendix.

19. North Carolina is one of fourteen U.S. states that completely bans masturbation by incarcerated people. *See* 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).

A. Disparities at Each Stage

I divided the disciplinary process into four stages: write-ups, disciplinary hearings, appeals, and administration of sanctions. I isolated each of these stages to determine where racial disparities might be introduced.

1. Stage One: Write-Ups

I first examined racial disparities in the issuance of write-ups at the unit level. A "unit" is an administrative segment within one prison. The unit is the first level at which an alleged infraction is addressed.

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 made up 53.7% of the sample but accounted for 61.3% of the write-ups. Indigenous people made up 2.3% of the sample but received 2.7% of the write-ups. White people, Latinx people, and people whose races were categorized as other were underrepresented in disciplinary write-ups.

These descriptive statistics may not give the full picture, however, because they do not control for other potential predictor variables that may have relationships with race. We know, for example, that sentencing dispar-

ities lead to Black people receiving longer sentences than white people.[20] Previous research has suggested that the longer someone has been in custody, the less likely they may be to receive infractions.[21] It is important to control for years in custody, therefore, because failing to control for this variable could obfuscate disparities in disciplinary infractions. 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 used binary logistic regression to control for years in custody, age, sex, and sentencing regime. After controlling for other variables, Black people were 10.3% more likely than white people to receive at least one disciplinary write-up in 2020.[22] Indigenous people were 13% more likely than white people to receive a disciplinary write-up. Latinx people were 25% less likely than white people to receive a disciplinary write-up.[23] People categorized as Other were 18.9% less likely than white people to receive a disciplinary write-up.

20. THE SENTENCING PROJECT, *Report to the United Nations on Racial Disparities in the U.S. Criminal Justice System* (2018), https://www.sentencingproject.org/publications/un-report-on-racial-disparities/.

21. 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).

22. I calculated these risk ratios by applying the Zhang & Yu method to the odds ratios generated by 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 (1998). This is the method recommended by Akiya Liberman of the National Institute of Justice, now at the Urban Institute. Akiva Liberman, *How Much More Likely? Implications of Odds Ratios for Probabilities*, NAT'L INST. OF JUST.,
http://www2.law.columbia.edu/fagan/courses/law_socialscience/documents/Spring_2006/Class%207-Sampling/Liberman_probability.pdf. See page 2 of methodological appendix. I report only the risk ratios in the main body of the Article, as they are more intuitive to understand. To see the odds ratios, refer to the tables in the methodological appendix.

23. One possible explanation for this is that Latinx people may be less likely to speak English, and therefore may be less likely to receive infractions such as "profane language" or "threats."

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

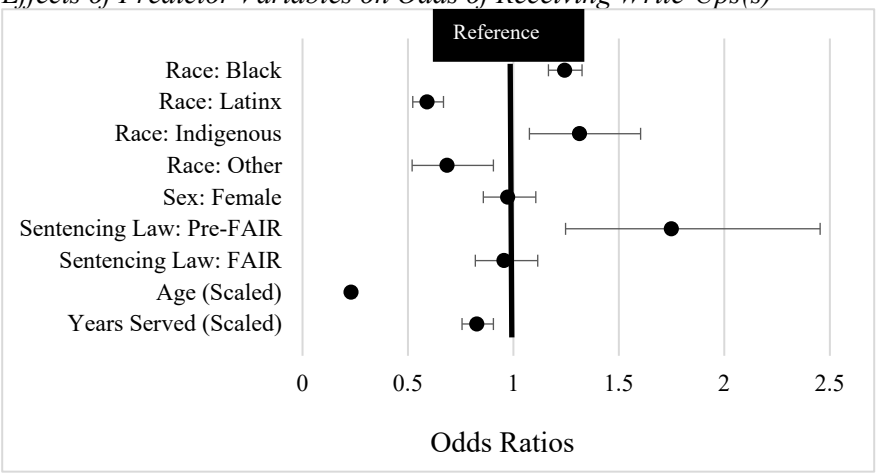

Figure 1 shows the effect of each variable on the odds of getting at least one write-up in 2020. The thick black line represents the reference category: white males sentenced under the Structured Sentencing Act. The variables to the left of the reference category (race: Latinx, race: Other, age, and years in custody) reduced the odds of receiving a write-up. The variables to the right of the reference category (race: Black, race: Indigenous, and sentencing law: Pre-FAIR) increased the odds of receiving a write-up. The two variables that straddle the reference category (sentencing law: FAIR and sex: female) did not have statistically significant effects on write-ups. The brackets represent the 95% confidence intervals.[24]

Unit-Level Guilty Pleas

Of these 47,996 write-ups, people pled 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 who pleads guilty to infractions, as opposed to pleading not guilty or not entering a plea. Black people were 12.3% less likely and Indigenous people were 12.5% less likely to plead guilty than white people.

24. 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.

Outcomes at the Unit Level

Of these 47,996 write-ups, 4,147 (8.6%) were counseled,[25] 3,758 (7.8%) were dismissed, 332 (0.7%) resulted in a not-guilty finding at the unit level, 10,770 (22.4%) resulted in a guilty finding,[26] and 28,982 (60.4%) were referred to a disciplinary hearing officer. The unit-level verdict was missing for 7 cases. I analyzed the 37,149 write-ups for which a guilty plea was not entered[27] and used binary logistic regression to determine whether there was a racial disparity in who got a "good outcome" (counseled, charges dismissed, or found not guilty) at this level. Latinx people were 13.4% more likely than white people to receive a positive outcome at the unit level. There were no statistically significant effects for the other racial groups (Black, Indigenous, or Other).

2. Stage Two: Disciplinary Hearings

I considered the 28,953 cases that went to a disciplinary hearing.[28] People pled guilty to 16,441 (56.8%) of the alleged infractions, pled not guilty to 4,903 (16.9%), and did not enter a plea for the remaining 7,609 (26.3%). The disciplinary hearing officer found people guilty of 22,734 (78.5%), found people not guilty of 23 (0.1%), dismissed the charges for 2,908 (10%), and ordered a re-investigation for 3,284 (11.3%). The outcome was missing for the four remaining cases.

Guilty Pleas at Disciplinary Hearings

I used binary logistic regression to evaluate whether there was a racial disparity in who pleads guilty to infractions at a disciplinary hearing, controlling for sex, age, years in custody, and sentencing law. Black people were 16.9% less likely, Latinx people were 8% less likely, and those categorized as Other were 15.3% less likely than white people to plead guilty. There was not a statistically significant effect for Indigenous people.[29]

Guilty Verdicts at Contested Hearings

I then considered only the 12,512 charges that led to contested hearings—those for which people pled 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 (re-investigate, not guilty, dismissal, or missing). I controlled for sex, age,

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

26. Usually following a guilty plea.

27. I only looked at these infractions because most guilty pleas resulted in unit-level guilty verdicts, and I didn't want to duplicate the analysis of predictors of guilty pleas.

28. Not all of those that were referred to a DHO by the unit actually went to a hearing.

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

years in custody, and sentencing law. Black people were 7.5% more likely than white people to be found guilty in a contested disciplinary hearing. There was no effect for Latinx people, Indigenous people, or others.

3. Stage Three: Disciplinary Appeals

Decision to Appeal

I examined the 6,314 cases to which an individual did not plead guilty but was found guilty at a disciplinary hearing. People appealed 2,638 (41.8%) of these decisions. I used binary logistic regression to determine whether there was a racial disparity in who appeals after a guilty verdict at a disciplinary hearing. There was no statistically significant racial disparity for any groups.

Guilty Pleas at Appeals

At the appeal level, people pled guilty to 248 (8.3%) of the 2,985 infractions, pled 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 or their designee found people guilty of 2,885 (96.6%) of the charges, dismissed the charges for 85 (2.8%), and ordered a re-investigation for 15 (0.5%). The Commissioner did not find anybody not guilty on appeal.

I used binary logistic regression to evaluate the relationship between race and whether there was a guilty verdict vs. another outcome (re-investigate, not guilty, or dismissal). I considered only contested appeals—those for which the person did not enter a guilty plea. I controlled for sex, age, years in custody, and sentencing scheme. 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, and others.

4. Stage Four: Administering Sanctions

I looked at the 3,599 write-ups for disobeying orders (the most common infraction) to which someone pled guilty and was adjudged guilty at the unit level, meaning that the case never went to a disciplinary hearing. The average sanctions for this offense at this level with a guilty plea and a guilty verdict were 10 days of disciplinary segregation, 12 lost good days, 41 days of suspended privileges, and 29 extra duty hours.

I used multiple linear regression (OLS) to test for disparities in four types of sanctions for disobeying orders: days of disciplinary segregation, days of lost good time, days of suspended privileges, and extra duty hours. The model predicted that, for this infraction type at this level, Black people would receive 1.54 fewer days of suspended privileges and 0.94 fewer extra duty hours than white people. The model also predicted that Latinx people would receive 4.04 fewer extra duty hours than white people. There were no other statistically significant racial disparities.[30]

B. Disparities in Overall Outcomes

1. Final Dispositions

I examined all write-ups issued to members of the sample and used binary logistic regression to determine the factors that predicted an eventual guilty disposition (either at the unit level; disciplinary hearing; appeal; or on a second, third, or fourth review). Of these, 72.8% resulted in a final guilty verdict.

For a given write-up, Black people were 3.2% less likely than white people to receive an eventual guilty disposition. This may be because Black people were less likely to plead guilty at the unit level and at disciplinary hearings.[31] There were no statistically significant effects for Latinx people,[32] Indigenous people, or people categorized as Other.

Because Black people were more likely to receive a write-up in the first place, they are still more likely to experience sanctions like disciplinary segregation.

2. Sanctions

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

30. 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 ($p = .081$), Black people were predicted to lose .783 more days of good time than white people ($p = .067$), and Indigenous people were predicted to experience 3.97 fewer days of suspended privileges than white people ($p = .052$).

31. *See infra* pp 10-11.

32. Latinx people were 2.8% less likely than white people to receive an eventual guilty verdict, but this was not significant at the $p < .05$ level ($p = .050$).

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 in 2020	Average days of suspended privileges in 2020	Average extra 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
Indigenous	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 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 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 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 duty hours. People 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 duty hours.

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

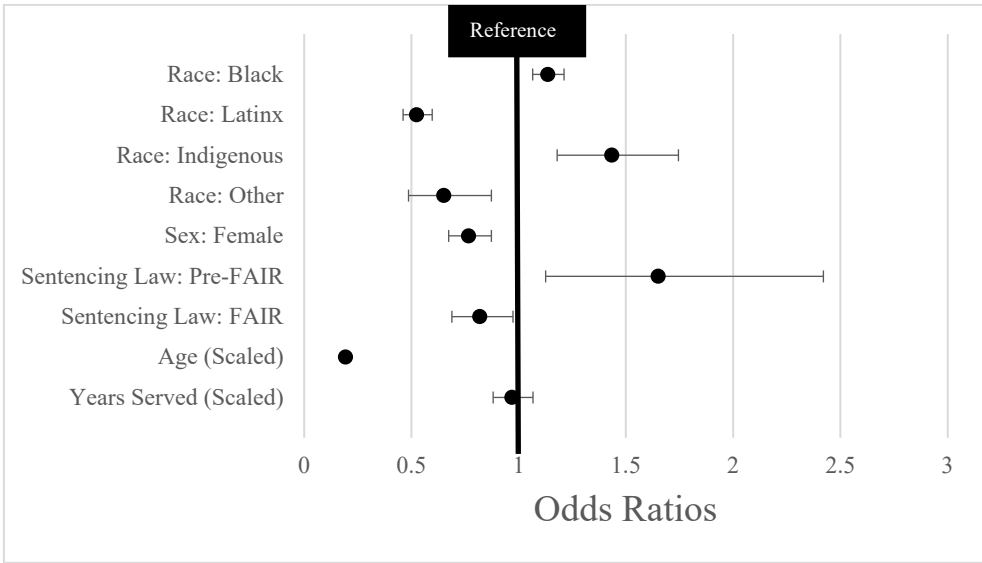

Figure 2 shows the effect of each variable on the odds of receiving disciplinary segregation in 2020. The thick black line represents the reference category: white males sentenced under the Structured Sentencing Act. The variables to the left of the reference category (race: Latinx, race: Other, sex: female, sentencing law: FAIR, and 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) increased the odds of receiving disciplinary segregation. The variable that straddles the reference category (years in custody) did not have a statistically significant effect on disciplinary segregation. The brackets represent the 95% confidence intervals.[33]

C. Limitations

One limitation of this study relates to the quality of the data about race and ethnicity. All data presented here come from two DPS datasets. Although the datasets are generally high quality, DPS's coding of race and ethnicity was inconsistent. DPS uses at least seventeen different labels in

33. *See infra* n. 24.

their race and ethnicity designations.[34] The labels were not used consistently from person to person. For example, one person might have their race labeled "Asian" and their ethnicity labeled "Oriental." Another person might have their race labeled "Other" and their ethnicity labeled "Asian."

To run the regression analyses, I needed several discrete racial categories. I recoded the seventeen labels into five categories: White, Black, Native American, Hispanic, and Other.[35] The "Other" category includes Asian incarcerated people because the low number of Asian incarcerated people would not yield statistically significant results independently. These five categories do not encapsulate the complexity of people's racial and ethnic identities. Nonetheless, I hope that coding the data in this way will shed light on how people who are racialized differently experience prison discipline differently.

A second limitation is that this analysis focuses on data from 2020, but 2020 was not a normal year. The Covid-19 pandemic in 2020 disproportionately affected incarcerated people in North Carolina.[36] As of this writing, one in three incarcerated people in North Carolina state prisons has tested positive for Covid-19.[37] One out of every 623 incarcerated people in North Carolina has died from Covid-19.[38]

It is possible that the pandemic changed the way infractions were administered. However, many are aligned with Bridget Brew's analysis of previous years' data,[39] suggesting that the pandemic did not significantly change the prison-discipline system and its disparities.

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

34. N.C. DEP'T OF PUB. SAFETY, INMT4AA1 (2021), https://webapps.doc.state.nc.us/opi/downloads.do?method=view, last accessed Feb 5, 2021.

35. For a detailed explanation of this procedure, see pages 1-2 of the methodological appendix.

36. THE MARSHALL PROJECT, *A State-by-State Look at Coronavirus in Prisons*, https://www.themarshallproject.org/2020/05/01/a-state-by-state-look-at-coronavirus-in-prisons (last accessed Jun. 3, 2021, 5:54 PM).

37. *Id*.

38. *Id*.

39. Bridget Brew, *The Keepers and the Kept: Three Essays Investigating the Importance of Race During Confinement*, unpublished PhD Dissertation (2019) (finding that the odds of a Black person receiving an infraction were 21.8% greater than those of a white person during the period from 1995–2016).

III. EXPLAINING THE DISPARITIES

Black and Indigenous people were much more likely to receive a disciplinary write-up than were their white counterparts. Historically, different racial groups' different rates of infractions have been interpreted as evidence that certain races are more likely to break prison rules than others. In the 1970s, however, some researchers began challenging this assumption, recognizing that disciplinary infractions are a misleading measure of rule-breaking behavior.[40] Because not all rule-breaking results in an infraction, differential infraction rates may measure of bias or "selective perception"[41] on the part of prison staff more than they measure actual rule-breaking behavior. Nonetheless, contemporary researchers continue to interpret data about disparities in disciplinary infractions as if it were evidence that people of color actually commit infractions at different rates.[42]

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, but correctional officers at the same prison believed that Black people were more aggressive and gave them more write-ups.[43] This effect was particularly strong when the infractions in question had ambiguous definitions, as those allow for the most officer discretion. The authors concluded that the explanation that Black people actually violated the more ambiguous rules at much higher rates than they violated other rules was "far-fetched" and unlikely.[44] 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 they incorrectly perceived Black people to be more dangerous.[45]

The tendency to unquestioningly equate rates of infractions with rates of rule-breaking behavior is a serious limitation of previous research in this area. Most rule-breaking 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 a formal disciplinary infraction in

40. *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 LAW & 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).

41. Anne M. Heinz et al., *Sentencing by Parole Board*, 67 J. CRIM. L. & CRIMINOLOGY 1 (1976).

42. *See, e.g.,* Heidi S. Bonner et al., *Race, Ethnicity, and Prison Discipline*, 15 J. ETHNICITY CRIM. JUST. 36 (2017).

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

44. *Id.* at 57.

45. *Id.* at 56.

the preceding month, but 91.8% admitted to having violated a rule during that period.[46] This suggests that 82% of rule-breaking went unreported. They also found that, although Black and white incarcerated people engaged in rule-breaking behavior at the same rates,[47] Black people were more likely to receive infractions.[48] They concluded that "disciplinary reports may tell us as much about the reaction of guards as they do about the activity of inmates."[49]

The question of which people prison officials choose to scrutinize may be more important than actual rule-breaking, therefore, 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 instances of misconduct.[50] This is a vicious cycle because a history of write-ups may predict future write-ups more than one's actual propensity to engage in rule-breaking activity does.[51] In this way, disparities can be not just cumulative, but compounding.

Furthermore, correctional officers exercise considerable discretion when deciding whether to issue a disciplinary write-up. Prison officials can decide whether to handle misconduct informally or through a formal infraction, and previous research suggests that the decision to report an infraction is influenced by a variety of factors other than the nature of the conduct.[52] Previous research has found that, instead of finding misconduct by identifying specific broken rules, correctional officers often first decide to discipline somebody and then decide retroactively what rule to apply.[53] Prison rules are sometimes ambiguous. Judgments about what counts as "profane language," for example, may vary across culture, age, place, race, and language. This ambiguity, coupled with discretion in the interpretation of rules, opens the door for biases—explicit or implicit—to creep into correctional officers' decisions about whom to punish.

46. Eric D. Poole & Robert M. Regoli, *Race, Institutional Rule Breaking, and Disciplinary Response: A Study of Discretionary Decision Making in Prison*, 14 LAW & SOC'Y REV. 931, 940 n. 9 (1980).

47. *Id.* at 944.

48. *Id*. at 940.

49. *Id.* at 945 n.12.

50. *Id*. at 940.

51. *Id.* at 942.

52. Stephen C. Light, *Measurement Error in Official Statistics: Prison Rule Infraction Data*, 54 FED. PROBATION 63, 63-64 (1990).

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

A. Explicit Racial Bias

Prison staff with explicit racial animus may discriminate when issuing disciplinary write-ups. Kelsey Kauffman, a researcher who has studied prison officials for decades, 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."[54] It is difficult to identify allegations of explicit racial bias in prisons, as the corresponding lawsuits often result in settlements sealed by court orders.[55] One exception to this was when, in 2018, a Black Muslim correctional officer at North Carolina's Polk Correctional Institute sued the state for racial and religious discrimination.[56] He publicized his allegation that the prison lieutenant called him the N-word.[57] This incident suggests that some North Carolina prison officials harbor racial antagonism, which may explain, at least in part, the elevated infractions rates for Black and Indigenous people.

B. Implicit Racial Bias

Research into implicit biases may offer a supplementary explanation. Implicit racial bias is an unconscious process that may lead a person to behave in ways that preference certain races over others.[58] Unlike explicit bias, this process occurs outside of the actor's conscious awareness, making it especially difficult to identify and mitigate.[59]

Researchers have shown that implicit bias influences teachers' decisions about how to discipline students,[60] police officers' decisions about whether to shoot suspects,[61] and judges' and juries' decisions in the courtroom.[62] It

54. SOUTHERN POVERTY LAW CENTER, *Allegations of Racist Guards are Plaguing the Corrections Industry* (Dec. 6, 2000), https://www.splcenter.org/fighting-hate/intelligence-report/2000/allegations-racist-guards-are-plaguing-corrections-industry.

55. *Id.*

56. Will Doran & Camila Molina, *Correctional officer alleges anti-black, anti-Muslim bias over his beard*, THE NEWS & OBSERVER (Jun. 25, 2018), https://www.newsobserver.com/news/local/article213801944.html.

57. *Id*.

58. Mahzarin R. Banaji & Anthony G. Greenwald, BLINDSPOT: HIDDEN BIASES OF GOOD PEOPLE (2013).

59. *Id*.

60. 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?*, YALE U. CHILD STUDY CENTER (Sept. 28, 2016), https://medicine.yale.edu/childstudy/zigler/publications/Preschool%20Implicit%20Bias%20Policy%20Brief_final_9_26_276766_5379_v1.pdf.

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

seems a reasonable inference that if teachers', police officers', judges', and juries' decisions about whom and how to punish are influenced by implicit racial bias, so too are prison officials' decisions about disciplinary infractions. In her consideration of the role that implicit racial bias may play in prison discipline, Professor Andrea Armstrong explains, "the people who work in these closed institutions are subject to the same biases and psychological phenomena as the general public."[63]

While my analysis considers disparate rates of disciplinary infractions, I am not able to parse whether those differences are attributable to explicit bias, implicit bias, some other factor, or some combination of these factors. Future experimental research should examine implicit bias among correctional officers and should evaluate the potential mitigating effect of implicit-bias training for prison staff.

IV. GOVERNOR'S TASK FORCE RECOMMENDATIONS

These results support four of the Governor's Task Force's 2020 recommendations: 85, 105, 107, and 109.[64] Recommendations 107 and 109 relate to the discipline process, and recommendations 85 and 105 relate to the consequences of disciplinary infractions.

A. Enhance Prison Personnel

The Task Force recommended that the legislature fund mandatory trainings on racial equity, cultural competency, and implicit bias.[65] 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 due to implicit bias. It is possible that the disparity would be mitigated by offering these trainings.

But these trainings cannot be the only solution. Joelle Emerson, a consultant who runs implicit bias trainings, warns that "not all trainings are equally good—and none are a silver bullet."[66] Indeed, anti-bias trainings may entrench rather than reduce biases in some circumstances—and this

62. Cheryl Staats et al., *State of the Science: Implicit Bias Review*, KIRWAN INSTITUTE FOR THE STUDY OF RACE AND ETHNICITY, 19 (2016), http://kirwaninstitute.osu.edu/wp-content/uploads/2016/07/implicit-bias-2016.pdf.

63. Andrea C. Armstrong, RACE, PRISON DISCIPLINE, AND THE LAW, 5 U.C. IRVINE L. REV. 759, 760 (2015).

64. N.C. TASK FORCE FOR RACIAL EQUITY IN CRIMINAL JUSTICE, REPORT 2020 (2020), https://ncdoj.gov/wp-content/uploads/2020/12/TRECReportFinal_12132020.pdf.

65. *Id.* at 121.

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

may be especially true when trainings are compulsory for employees.[67] Access to training, while a promising step, must therefore be coupled with other reforms, such as improved due process protections.

B. Increase Due Process Protections

The Task Force also recommended that NCDPS review how and whether the disciplinary system adequately protects people's due process rights.[68] The data presented here may aid in that review.

Furthermore, the Task Force recommends tracking individual disciplinary hearing officers' decisions to screen for bias. This study found that Black people were 7.5% more likely to be found guilty at a contested disciplinary hearing than white people, suggesting that there might be bias at the disciplinary hearing level. The more extreme disparities, however, occurred at the unit level, where Black people were 10.3% more likely than white people and Indigenous people were 13% more likely than white people to receive write-ups. If implemented, this tracking system should be expanded to screen for biased behavior by individual correctional officers, unit supervisors, and other prison staff. These unit-level staff are the authorities who decide whether to issue a write-up in the first place, which is the level at which there are the most extreme racial disparities, as this analysis demonstrates.

C. Require Bias and Racial Equity Trainings for Parole Staff

Parole Commissioners consider people's disciplinary records when assessing their applications for parole.[69] The Task Force recommended instituting mandatory implicit bias and racial equity training for Parole Commissioners.[70] Again, training is not a magic bullet.[71] Bias trainings might, however, help Parole Commissioners understand parole-eligible people's disciplinary records in context—especially if Parole Commissioners are made aware of the data presented here. These data might also help advocates contextualize their clients' disciplinary records when advocating for them before the Parole Commission.

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67. Frank Dobbin & Alexandra Kalev, *Why Diversity Programs Fail*, HARVARD BUS. REV. (July 2016), https://hbr.org/2016/07/why-diversity-programs-fail.

68. N.C. TASK FORCE FOR RACIAL EQUITY IN CRIMINAL JUSTICE, REPORT 2020, 122 (2020), https://ncdoj.gov/wp-content/uploads/2020/12/TRECReportFinal_12132020.pdf.

69. 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, 50-51 (1999).

70. *Id.* at 96.

71. *Supra* note 63.

D. Transform the Use of Restrictive Housing

Finally, the Task Force recommended that DPS change its policies to minimize the use of restrictive housing,[72] of which disciplinary segregation is one type.[73] It also recommended that a committee regularly review data about restrictive housing—including data about the races of people confined in restrictive housing. I have shown here that Black and Indigenous people were 7.9% and 22.9% more likely, respectively, to receive disciplinary segregation in 2020 than were white people. Minimizing—or eliminating—the use of restrictive housing would reduce that disparity in outcomes.

CONCLUSION

There are racial disparities in the disciplinary process in North Carolina prisons. Black and Indigenous people receive more write-ups than their white counterparts. As a result, Black and Indigenous people receive sanctions—like disciplinary segregation—more frequently than their white counterparts do. These findings suggest that there is a need for oversight, due process protections, and bias training within the prison-discipline system, as well as within adjacent systems like the parole-review process.

72. *Id.* at 118.

73. N.C. DEP'T PUB. SAFETY, HANDBOOK FOR FRIENDS AND FAMILIES OF OFFENDERS (2020), https://files.nc.gov/ncdps/documents/files/Prisons_FamilyFriends-Handbook_FINAL_EN_web.pdf, at 12.

METHODOLOGICAL APPENDIX

I examined two datasets from the North Carolina Department of Public Safety (DPS). The datasets, INMT4AA1 and INMT9CF1, are publicly available for download.[74] I downloaded the datasets on April 1, 2021. DPS updates the datasets regularly.

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 prior to December 1, 2019, and (3) had inmate status codes listed as "Active." 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 are outside the scope of this study. I removed anyone admitted during December of 2019 to filter out the first several weeks after someone's conviction, during which they might temporarily be housed in a jail—again, because jail disciplinary practices are outside the scope of this study. I included only people listed as "Active" as this meant that they were still in prison as of April 1, 2021. I did this so as not to accidentally include somebody in the sample who had been released in mid-2020, for example. My goal in choosing these dates was to restrict the sample to people who had been in a prison for the entirety of 2020, because it did not make sense to compare the 2020 disciplinary record of somebody who was only incarcerated for part of 2020 with the record of somebody who was incarcerated for the entire year.

Infractions

I used the INMT9CF1 dataset and restricted the sample to only those infractions issued in 2020. Each stage in the infraction process (Write-Up, DHO, Appeal) is listed in the dataset as a separate entry. For the analysis at each stage, I filtered out cases except those relevant to the level in question (for example, when considering write-ups, I looked only at unit-level cases). I aggregated infractions at each level by OPUS number (the identification number given to incarcerated people) to determine how many infractions every member of my sample received in 2020.

74. N.C. DEP'T OF PUB. SAFETY, DOWNLOADS, OFFENDER PUBLIC INFORMATION (2012), https://webapps.doc.state.nc.us/opi/downloads.do?method=view (last visited Apr. 1, 2021). You will need a statistical software package like SPSS, Stata, or R Studio to open these fixed-width datasets because INMT9CF1, which has 3.6 million cases, is too large to open in Excel. Many universities pay for SPSS and Stata licenses. R Studio is available for download for free online.

Coding Race for Statistical Analysis

I recoded 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. All others were coded as "Other." The "Other" category includes Asian incarcerated people because the population of Asian incarcerated people is too small to provide statistically significant results independently. I ensured that none of these racial categorizations overlap, so as not to violate the assumptions of binary logistic regression or multiple regression. I used white as the reference category for the regression analyses.

Other Independent Variables

Age

I calculated people's ages at the start of 2020 by calculating the years between January 1, 2020, and their birthdays.

Years Served Since Most Recent Admission Date

I calculated how many years someone had served by calculating the years between January 1, 2021, and their current prison admission date.

Sex

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

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 re-coded "Pre Fair" and "Pre-Automa" into a single "Pre-Fair" category. I used "Structured" as the reference category with "FAIR" and "Pre-Fair" as the predictor variables.

Custody Level

I did not include custody level as predictor variable. I considered adding custody level (minimum, maximum, or close) to the models as a predictor variable. However, DPS's datasets do not say what custody level applied to a person at a specific point in time; they only say what the custody level

someone had at the time the datasets were downloaded. The prison may change someone's custody level as a result of disciplinary infractions. It did not make sense to include custody level as a predictor variable, then, because what it would really show would be a consequence of an infraction rather than a predictor of it.

Odds Ratios versus Risk Ratios

Binary logistic regression generates odds ratios, which can be challenging to interpret correctly. An odds ratio provides information about the strength of relationship between two variables (for example, race and infractions). However, an odds ratio is not the same as a relative risk. If the odds ratio for a Black person receiving a write-up is 1.24, 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 ration 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.[75] In populations where the incidence of an event (disciplinary write-up) is high (>10% of the sample), like this one, odds ratios can overstate the magnitude of an effect if they are erroneously interpreted as risk ratios.[76]

To determine the risk ratio from the odds ratio, I used a formula by Zhang and Yu.[77] Because many people do not understand the difference between odds and risk ratios, 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 the methodological appendix, I report both the odds ratios and the calculated risk ratios. I report the odds ratios in the tables and the risk ratios in the description under each table.

A. Disparities at Each Stage

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-

75. Akiva Liberman, *How Much More Likely? Implications of Odds Ratios for Probabilities*, NAT'L INST. OF JUST., http://www2.law.columbia.edu/fagan/courses/law_socialscience/documents/Spring_2006/Class%207-Sampling/Liberman_probability.pdf.

76. 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, 1690 (1998).

77. 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 (1998).

peals level lines, which are duplicates of the original unit-level infraction but instead contain information about the hearing or the appeal. I filtered out unit-level infractions with a sequence code greater than 1, because that usually meant that the infraction had previously been charged but was being sent back down to the unit for re-investigation. 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 act (n = 2,319), and unauthorized leave (n = 2,144).

Appendix Table 1
Frequency of 2020 Disciplinary Write-Ups for Sample

Name Of Infraction	# 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	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
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 Liq-uids	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/Unauth. 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
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 Comm. 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 of the 21,277 people in the sample had been accused of at least one write-up in 2020, regardless of the eventual disposition of the charge. I dummy-coded this as a 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 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 relationships between write-ups (dependent variable) and race, sex, years served, age, and sentencing law (independent variables). Binary logistic regression was an appropriate tool because I wanted to look at a variety of predictor variables (continuous and categorical) 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. The odds ratios are shown in Appendix Table 4.

Appendix Table 5
Odds Ratios for Write-Up in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 7,772)			
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			
(*ref*: Male: n = 20,100)			
Female (n = 1,177)	.973	.065	.679
Sentencing Law			
(*ref*: SSA: n = 19,544)			
Pre-FAIR (n = 218)	1.749**	.173	.001
FAIR (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 race was 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 the calculation of risk ratios because 51.8% of white people received disciplinary write-ups.

This model has a Cox & Snell R^2 value of .126 and a Nagelkerke R^2 value of .169. These suggest 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 shown 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.[78]

I then considered the 47,996 write-ups and tried to identify factors that might predict a guilty plea (versus a not-guilty plea 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
Odds Ratios for Guilty Plea

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White: n = 14,891)			
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			
(*ref*: Male: n = 45,691)			
Female (n = 2,305)	1.412***	.047	.000
Sentencing Law			
(*ref*: SSA: n = 46,516)			

78. *See* Andrew Gelman, *Scaling regression inputs by dividing by two standard deviations*, 27 STATISTICS IN MEDICINE 2965 (2008).

Pre-FAIR (n = 177)	2.691***	.207	.000
FAIR(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

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 the calculation of risk ratios because 25% of white people pled guilty at this level.

I then considered only the 37,149 write-ups to which someone did not plead guilty. I did not include write-ups to which people pled 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 good outcome (defined as counseled, charges dismissed, or not-guilty finding) at the unit level for these cases. I used "good 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 good outcome. If a case was referred to a disciplinary hearing, if it resulted in a guilty finding, or if the verdict was missing, I coded that as 0. I used and years served, age, race, and sentencing regime as the predictor variables.

Appendix Table 7
Odds Ratios for Good Unit-Level Outcomes

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White: n = 11,156)			
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			
(*ref*: Male: n = 35,539)			
Female (n = 1,610)	2.354***	.053	.000
Sentencing Law			
(*ref*: SSA: n = 35,925)			
Pre-FAIR (n = 142)	1.097	.219	.673
FAIR (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 get a good outcome at this level. There were no statistically significant effects for the other racial groups. I used 23.7% as the baseline probability for the calculation of risk ratios because 23.7% of white people got a good outcome at this level.

2. Stage Two: Disciplinary Hearings

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

Guilty Pleas at Disciplinary Hearings

I used binary logistic regression to examine the relationships between pleading guilty (dependent variable) and race, sex, years served, age, and sentencing regime (independent variables).

Appendix Table 8
Odds Ratios for Guilty Plea at Disciplinary Hearing in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 8,512)			
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			
(*ref*: Male, n = 27,975)			
Female (n = 978)	.927	.067	.254
Sentencing Law			
(*ref*: SSA, n = 28,047)			
Pre-FAIR (n = 110)	3.327***	.210	.000
FAIR (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 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 only significant at the p < .10 level. I used 64.1% as the baseline probability for the calculation of risk ratios because 64.1% of white people pled guilty in a disciplinary hearing.

Contested Hearing Outcomes

I narrowed the 28,953 cases down to only the 12,512 cases for which people pled not guilty or did not enter a plea. I did not include those cases for which people pled guilty because all guilty pleas resulted in a guilty finding by the DHO.

Of the 12,512 cases I considered, 6,314 (50.5%) resulted in guilty verdicts at the disciplinary hearing. I used binary logistic regression to examine the relationships between guilty verdicts (dependent variable) and race, sex, years served, age, and sentencing regime (independent variables).

Appendix Table 9

Odds Ratios for Guilty Verdict at Contested Disciplinary Hearing in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 3,053)			
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			
(*ref*: Male, n = 12,101)			
Female (n = 411)	.202***	.133	.000
Sentencing Law			
(*ref*: SSA, n = 12,005)			
Pre-FAIR (n = 52)	1.187	.311	.582
FAIR (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 a disciplinary hearing. There were no statistically significant effects for the other racial groups. I used 50.5% as the baseline probability for the calculation of risk ratios because 50.5% of white people were found guilty at a contested disciplinary hearing.

3. Stage Three: Disciplinary Appeals

I examined the 6,314 cases to which somebody did not plead guilty but that resulted in a guilty verdict at a disciplinary hearing. People appealed 2,638 (41.8%) of these decisions. I used binary logistic regression to evaluate whether there was a relationship between race and filing an appeal, controlling for sex, age, years served, and sentencing law.

Appendix Table 10
Odds Ratios for Deciding to Appeal after a Contested Disciplinary Hearing

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 1,421)			
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			
(*ref*: Male, n = 6,244)			
Female (n = 70)	1.405	.243	.161
Sentencing Law			
(*ref*: SSA, n = 6,037)			
Pre-FAIR (n = 33)	.616	.395	.220
FAIR (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

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

I examined all 2,985 decisions (of the 28,953 disciplinary hearings) that were appealed to the Commissioner of Prisons and had a sequence code of 1. This 2,985 figure is slightly higher than the 2,638 figure considered in the previous analysis because the previous analysis only considered cases for which a guilty plea had not been entered at the disciplinary hearing stage. I used binary logistic regression to evaluate whether there was a relationship between race and guilty plea on appeal, controlling for sex, age, years served, and sentencing law.

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

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 715)			
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			
(*ref*: Male, n = 2946)			
Female (n = 39)	.871	.609	.820
Sentencing Law			
(*ref*: SSA, n = 2,850)			
Pre-FAIR (n = 12)	.000	11571.224	.999
FAIR (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 those appeal cases for which the person entered a guilty plea (n = 248) because, predictably, these all except one of these pleas resulted in guilty verdicts on appeal (the one exception went to re-investigation). This left 2,737 cases. I used binary logistic regression to examine the relationships between guilty verdicts (dependent variable) and race, sex, years served, age, and sentencing regime (independent variables).

Appendix Table 12
Odds Ratios for Guilty Verdict at Contested Appeal

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White: n = 653)			
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			
(*ref*: Male: n = 2,701)			
Female (n = 36)	1.213	1.023	.850
Sentencing Law			
(*ref*: SSA: n = 2,615)			
Pre-FAIR (n = 12)	66402316.253	11587.436	.999
FAIR (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

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

4. Stage Four: Administering Sanctions

I limited my analysis to the most common offense: disobeying orders. I also limited my analysis to all write-ups with a sequence code of 1 to which somebody pled guilty and was adjudged guilty at the unit level (n = 3,599). I used OLS regression to look at the effect of race on the number of days in disciplinary segregation someone received, the days of lost good time, the days of suspended privileges, and extra duty hours. I controlled for age, years in custody, sex, and sentencing law.

Appendix Table 13
Multiple Regression Predicting Days of Disciplinary Segregation

Variable	Un-standard-ized B	Un-standard-ized S.E.	Standard-ized 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
Indige-nous (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-FAIR (n = 12)	.386	2.378	.003	.162	.871
FAIR (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

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

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-FAIR (n = 12)	3.879	3.554	.020	1.091	.275
FAIR (n = 73)	.613	1.658	.008	.370	.711
Age (Years)	.119***	.021	.108	5.620	.000
Years Served	.116	.045	.061	2.561	.010

Constant	5.095***	.778	--	6.552	.000
R^2	.029	--	--	--	--
Adjusted R^2	.026	--	--	--	--
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). The model predicted that, for each year older someone was, they would lose .119 more days of good time (p < .001).

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-FAIR (n = 12)	8.352	5.853	.026	1.427	.154
FAIR (n = 73)	.706	2.731	.005	.259	.796
Age (Years)	.019	.035	.011	.544	.586
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 females would receive 7.48 fewer days of suspended privileges than males (p < .001).

Appendix Table 16
Multiple Regression Predicting Extra Duty Hours

Variable	Unstandard-ized B	Unstandard-ized S.E.	Standard-ized 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-FAIR (n = 12)	3.916	3.832	.018	1.022	.307
FAIR (n = 73)	.296	1.788	.003	.166	.868
Age (Years)	.022	.023	.019	.970	.332
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 duty hours than white people (p < .05) and that Latinx people would receive 4.04 fewer extra duty hours than white people (p < .001). The model also predicted that females would receive 3.178 fewer extra duty hours than males (p < .001).

B. Disparities in Overall Outcomes

1. Final Dispositions

For each of the write-ups, I identified the final disposition in the last line for that particular infraction in the INMT9CF1 dataset. This final disposition may represent the unit-level decision, the disciplinary hearing decision, the appeal decision, or a subsequent decision if there was a re-investigation. I used binary logistic regression to evaluate the effect of race on the final disposition (guilty vs. some other outcome), controlling for sex, sentencing law, age, and years served. There were 48,936 infractions included in this analysis. This 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 a sequence code of 1, meaning that it was the first time the unit looked at the write-ups in question. Sometimes, when a case was ordered for re-investigation, additional charges were brought, which is why the analysis of final outcomes includes 48,936 infractions.

Appendix Table 17
Odds Ratios for Final Guilty Verdict

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 15,143)			
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			
(*ref*: Male: n = 46,576)			
Female (n = 2,360)	.510***	.044	.000
Sentencing Law			
(*ref*: SSA: n = 47,423)			
Pre-FAIR (n = 181)	1.957***	.188	.000
FAIR (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: Once a write-up was issued, Black people were 3.2% less likely than white people to eventually be found guilty. Latinx people were 2.8% less likely than white people to be found guilty, although this effect was only significant at the p < .10 level. There was no statistically significant effect for Indigenous people or people categorized as Other. I used 73.5% as the baseline probability for the calculation of risk ratios because 73.5% of write-ups issued to white people resulted in eventual guilty verdicts.

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 CIDRACNF (days of disciplinary segregation), CIDRDAYS (good time lost due to infraction), SUSPDAYS (days of privilege suspension), and XDUTYHRS (extra 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 disciplinary hearing level). I considered all 21,277 members of the sample, including those who received no infractions in 2020.

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 Privilege Suspension

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 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, sex, sentencing law, age, and years in custody on the receipt of four types of sanctions: disciplinary segregation, lost good time, suspended privileges, and extra duty hours.

Appendix Table 22
Odds Ratios for Receiving Disciplinary Segregation in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 7,772)			
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			
(*ref*: Male: n = 20,100)			
Female (n = 1,177)	.767***	.066	.000
Sentencing Law			
(*ref*: SSA: n = 19,544)			
Pre-FAIR (n = 218)	1.651*	.195	.010
FAIR (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 categorized as Other were 24.8% less likely than white people to receive disciplinary segregation. I used 38.5% as the baseline probability for the calculation of 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 15 of the Article, I scaled the two continuous variables—Age and Years Served—by sub-

tracting the mean from each value and then dividing by two times the standard deviation.[79]

Appendix Table 23

Odds Ratios for Losing Good Time Due to Infractions in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 7,772)			
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			
(*ref*: Male: n = 20,100)			
Female (n = 1,177)	.816**	.066	.002
Sentencing Law			
(*ref*: SSA: n = 19,544)			
Pre-FAIR (n = 218)	1.218	.213	.353
FAIR (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

79. *See* Andrew Gelman, *Scaling regression inputs by dividing by two standard deviations*, 27 STATISTICS IN MEDICINE 2965 (2008).

white people to lose good time. People categorized as Other were 20.5% less likely than white people to lose good time. I used 35.4% as the baseline probability for the calculation of 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			
(*ref*: White, n = 7,772)			
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			
(*ref*: Male: n = 20,100)			
Female (n = 1,177)	.831**	.065	.004
Sentencing Law			
(*ref*: SSA: n = 19,544)			
Pre-FAIR (n = 218)	1.960***	.188	.000
FAIR (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

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 categorized as Other were 25.5% less likely than white people to experience suspended privileges. I used 42.8% as the baseline probability for the calculation of risk ratios because 42.8% of white people in the sample experienced suspended privileges.

Appendix Table 25
Odds Ratios for Extra Duty Hours in 2020

Variable	Odds Ratio	Standard Error	Sig.
Race			
(*ref*: White, n = 7,772)			
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			
(*ref*: Male: n = 20,100)			
Female (n = 1,177)	.868*	.065	.030
Sentencing Law			
(*ref*: SSA: n = 19,544)			
Pre-FAIR (n = 218)	1.887**	.191	.001
FAIR (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

Risk Ratios: Black people were 8.2% more likely than white people to receive extra duty hours in 2020. Latinx people were 34.6% less likely than white people to receive extra duty hours. Indigenous people were 18% more

likely than white people to receive extra duty hours. People categorized as Other were 27% less likely than white people to receive extra duty hours. I used 42.6% as the baseline probability for the calculation of risk ratios because 42.6% of white people in the sample received extra duty hours.