The Effect of Parole Board Racial Composition on Prisoner Outcomes

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Abstract

Parole is a major part of a prisoner's interaction with the criminal justice system, and is linked to long-run prisoner outcomes. Using data from the state of Georgia, we explore the link between parole board racial composition and prisoner outcomes. We find that a higher proportion of Black members on the parole board is associated with better parole outcomes for Black prisoners. Further, we document that the Black-White gap in parole violation rates, conditional on measures of parole success, closes when the parole board gains a Black member. Our findings suggest that more lenient parole decisions combined with greater parole supervision could explain the reductions in recidivism.

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1 Introduction

Although mandatory release has become the dominant prison release mechanism over the last two decades, indeterminate sentencing and discretionary parole release still play a fundamental role in reentry.[1] In 2019, forty-three percent of prisoners entering parole were released on discretionary parole (Oudekerk and Kaeble, 2019). Despite the widespread use of discretionary prison release, little quantitative research has been accumulated on parole (Doleac and LaForest, 2022), and even less is known about the role race may play in this stage of the criminal justice system.[2] This gap in the literature is surprising given the amount of research compiled on racial disparities in sentencing and the fact that 34 US states still use discretionary parole boards for prison release (Renaud, 2019). Moreover, because parole boards have complete authority over how much of the prescribed sentence a prisoner serves, they may be in a position to either remedy or exacerbate any biases from earlier stages of the criminal justice system.

In this paper, we explore the role of the racial make-up of the parole board on its decision-making, through adjustments to the parole guidelines, and prisoner's parole outcomes, including time spent in prison, post-parole conditions, and eventual recidivism. We use administrative data on the universe of parole board decisions in the state of Georgia from 1980 to 2008. We complement this data with information on the race of each parole board member that we collected from the Georgia Board of Pardons and Paroles webpage.[3] We decide to focus our analysis on race instead of gender given that fewer than 10% of prisoners are female while more than 60% are Black. Additionally, the gender composition of the Georgia parole board showed minimal variation during our study period, remaining largely stable at approximately 20% female. Our empirical strategy relies on variation in

[1] Discretionary parole release is granted following a decision by a parole board. In contrast, mandatory release is an automatic discharge of an inmate after serving a specified term in prison.

[2] Most of the literature on parole supervision has focused on examining the impact of parole on recidivism by considering the extensive margin (Banan, 2022; Macdonald, 2022), intensive margin (Kuziemko, 2013; LaForest, 2022a; Zapryanova, 2020), intensity (Georgiou, 2014), and type of parole supervision (Arbour and Marchand, 2022; Lee, 2022).

[3] Race and gender are consistently observed characteristics of parole board members in our dataset.

parole board racial composition from the appointment or the stepping down of a black parole board member to a seat previously held by a white parole board member.

We find that as the percentage of Black parole board members increases, the board deviates more from its guidelines and with greater leniency for Black inmates. A higher proportion of Black parole board members is also associated with shorter time spent in prison as parole is granted earlier for Black prisoners. Similarly, recidivism rates are lower for Black releasees. We also show that, conditional on parole release and predictive measures of the likelihood of parole violation, the Black-White gap in parole violations narrows when the board gains its first Black member. Finally, we show that additional Black board members contribute to larger effects although our estimates are too noisy to demonstrate statistically significant differences. Overall, the estimates suggest that differences in parole decisions are linked to the race of parole members, which is associated with a reduction in racial disparities in post-parole outcomes.

While suggestive, our results are consistent with the view that diversity, in the form of minority board membership, can potentially reduce outcome disparities (parole violations). We acknowledge the limitations inherent in our analysis, primarily the potential for endogeneity in the composition of the board with respect to our outcomes, where the forces trending to more minority representation also reflect improvements in the racial gaps of outcomes. That said, we believe that there are reasonable mechanisms that would explain our results. For example, the outcome disparities may be driven by sub-optimally harsh parole decisions with regard to how long Black inmates stay in prison relative to White inmates prior to minority representation. We also find that just the inclusion of a single minority member is associated with a significantly smaller racial gap in outcomes.

Although the parole board in Georgia is similar in many dimensions to boards in other states, we also add the caveat that our findings could still be somewhat specific to our setting (McConnell et al., 2024). Nevertheless, given the widespread use of discretionary parole and lack of empirical evidence on the parole process, we believe that our paper would inform the

broader policy considerations of greater minority representation among decision makers.

Our work contributes to a small literature that examines racial disparities in the decision-making of parole boards (Mechoulan and Sahuguet, 2015; Anwar and Fang, 2015) and parole officers (LaForest, 2022b). Anwar and Fang (2015) develop models to test for prejudice in parole using rates of recidivism grouped by prisoner race. Using data from Pennsylvania between 1999 and 2003 they find no evidence of racial prejudice in parole decisions against minority prisoners but evidence that the amount of time served in prison is consistent with corresponding recidivism rates by race. Mechoulan and Sahuguet (2015) apply a similar methodology using national data and also conclude that parole board decisions do not appear to be racially biased given the higher rate of parole violations of Black inmates. Our estimates are consistent with their findings, with higher rates of parole violations among Black convicts when there are no minority members. LaForest (2022b) finds that parolees in Pennsylvania that are assigned to an officer of a different race are 6 percent more likely to recidivate, 3 percent more likely to commit a minor parole violation, and 6 percent less likely to be employed. We complement these studies by examining the role of the racial composition of the parole board and its effect on minority prisoners. This is critical given that in many states parole boards have sole discretion on determining prison time.

Our work also relates to the extensive literature that has investigated the extent to which racial bias at various stages of the criminal legal process is responsible for racial disparities in criminal-justice outcomes. Studies have examined extensively racial disparities in the behavior of police officers (Donohue III and Levitt, 2001; Anwar and Fang, 2006; Antonovics and Knight, 2009; Goncalves and Mello, 2021; Hoekstra and Sloan, 2020; Tomic and Hakes, 2008), prosecutors (Didwania, 2022; Rehavi and Starr, 2014; Starr, 2015; Sloan, 2019; Tuttle, 2019), juries (Anwar et al., 2012; Flanagan, 2018), and judges (Ayres and Waldfogel, 1994; Abrams et al., 2012; Arnold et al., 2018; Bielen et al., 2018).[4] Agan (forthcoming) summarizes multiple channels that can lead to these racial disparities. We provide the first

[4]Defendant race has also been found important for peer effects within prison (Tan and Zapryanova, 2022).

evidence, to our knowledge, that increasing racial diversity of the parole board closes the racial gap of parole violations.

Our results add to previous empirical work that has found significant effects of the composition of other decision makers in the criminal justice system on the application of justice and has highlighted the importance of decision-makers' race (Anwar et al., 2012; Flanagan, 2018), ethnicity (Lim et al., 2016), age (Anwar et al., 2014), gender (Schanzenbach, 2005; Anwar et al., 2019a; Knepper, 2018), political affiliation (Anwar et al., 2019b; Berdejó and Yuchtman, 2013; Cohen and Yang, 2019), and family structure (Glynn and Sen, 2015) in decision-making of judges and jurors. Anwar et al. (2012) show that a small change in the race composition of the jury pool (adding one Black member) has a large impact on the conviction rates of Black versus White defendants. Flanagan (2018) finds that Black male defendants are more likely to be convicted by jury pools with higher proportions of White men. Using data from English juries in 1919, Anwar et al. (2019a) find that the inclusion of women in juries has little effect on overall conviction rates but has large effect on offenses involving women, such as sex offenses.

Our paper is also related to the literature that studies the effect of racial diversity of the U.S. criminal justice system and has focused primary on its effect on "front-end" sentencing decisions done by judges (Lim et al., 2016; Schanzenbach, 2005; Harris, 2023; Collins et al., 2010). We add to this body of work by examining the "back-end" decisions, namely the practice releasing prisoners on parole and sending them back to prison for violating the requirements of their supervised release. Raphael and Stoll (2014) highlight the importance of considering both "front-end" and "back-end" policies in the effort to reduce incarceration rates while maintaining public safety. Thus, understanding how racial diversity of parole boards impact prisoner outcomes is an important policy-relevant question.

The rest of this paper is organized as follows. Section 2 gives context on the parole process in the state of Georgia. Section 3 provides an overview of our data. Section 4 outlines our empirical strategy while Section 5 presents our results. Section 6 concludes.

2 Institutional Details

The Georgia parole board consists of five members appointed by the governor to staggered, renewable seven-year terms, and subject to confirmation by the State Senate. The parole board is required by law to make parole decisions based on the risk an inmate may pose to public safety if they were released on parole (O.C.G.A. §42-9-40). To determine that risk, the parole board has established Parole Decisions guidelines (Grid) that take into account prisoner's prior criminal history ("success score") and current crime ("severity level").[5]

In Georgia, the parole process is automatically initiated upon a person's admission to prison, beginning with a pre-parole investigation conducted by a parole hearing examiner (rater). The rater interviews the prisoner, collects their personal information and criminal history, and uses the Grid along with the prisoner's risk score and current offense severity level to determine the prisoner's recommended temporary parole month (TPM) and prison time. The TPM is a date around which the parole board makes a final decision whether or not to release the person.[6] Once the pre-parole investigation is complete, the rater compiles a prisoner's parole file that contains all information gathered from the pre-parole investigation, Grid recommendations, and a summary discussing the content of the file.[7]

Most inmates are statutorily eligible for parole after serving one-third of their prison sentence, at which time the inmate's parole file is sequentially and randomly sent to the parole board members until three of the five members vote in the same way (O.C.G.A. §42-9-42).[8] When making a decision, each parole board member can set a temporary parole month (TPM), set a reconsideration date, or set neither. Board members have full discretion

[5]For more information about the guidelines and the parole process in Georgia, please refer to `https://pap.georgia.gov/parole-consideration/parole-consideration-eligibility-guidelines`.

[6]Adjustments to the Grid-suggested TPM may be necessary when specific circumstances are not captured by the Grid. These adjustments are not discretionary but are stipulated by Georgia criminal law.

[7]It is important to note that the rater's role in the parole process is limited, with no discretionary authority over parole decisions. Their only responsibility is to compile and organize the information in the file.

[8]The board does not meet collectively to review parole files or interview prisoners. Instead, each board member independently evaluates the file and votes, with access to prior votes recorded on the file. The individual votes of the board members are classified as "state secrets" and therefore are not available in our data. Rather, we observe the collective final decision of the board.

when setting a TPM–they may accept, decrease, or increase the TPM recommended by the Grid.[9] The board may override the Grid's recommended TPM and set a later date for various reasons, such as the person's conduct during incarceration or concerns that the initial TPM does not sufficiently mitigate public safety risks. Additionally, board members may impose special parole conditions–such as drug or alcohol treatment or mental health counseling–when they believe such measures are necessary to support rehabilitation or reduce recidivism risk.[10]

If the board sets a reconsideration date, it denies parole at present but commits to reviewing the file again in the future, at which point a TPM may be established.[11] Interviews with former board members indicate that reconsideration decisions are primarily driven by concerns about a person's rehabilitation progress and potential recidivism risk. The key distinction between setting a reconsideration date and setting a later TPM lies in the board's uncertainty regarding the timeline required for the person to be deemed "ready for parole." When the board does not set either a reconsideration date or a TPM, parole is denied for the remainder of the individual's sentence.

3 Data

We use two datasets from the state of Georgia to analyze the effect of parole board composition on the board decision-making and prisoner outcomes. First, we compile a dataset that contains the race of each parole board member that has served on Georgia parole board, assigned by our inference using information from historical biographies of the parole board members (including a color headshot) and annual reports of the Georgia board

[9] If the parole members disagree on the TPM, then the median TPM becomes the prisoner's TPM. If the board sets a TPM, the board is making a decision to complete a final review of the offender's parole file around the TPM and determine whether to set a final parole release date.

[10] These conditions are additional to the "standard conditions" which apply to all parolees described on `https://pap.georgia.gov/parole-population-georgia/parole-conditions`.

[11] In our data, we observe only the final TPM set by the board. As a result, we cannot track cases that undergo multiple reconsiderations or provide insight into the full parole process that led to the establishment of the last TPM.

of Pardons and Paroles.[12] Over the sample period there are 23 unique parole board members of which 6 are Black. We calculate our main variable of interest, parole board composition, as the percent of Black members serving on the board in a given month. We show the changes in percent of Black parole board members as well as other changes in the board membership over time in Figure 1.[13] Only once during the sample period (late 1980s) the Georgia Parole board had no Black members. Otherwise, we observe that there has always been at least one Black member and that the percent of Black parole members reached its highest (60%) in the early 2000s.[14] Second, we use an administrative database from the Georgia Department of Corrections of the universe of people admitted to prison in Georgia after 1980 and released before January 1, 2008. These records contain socio-demographics, criminal history, parole, and current conviction information for each person admitted to state prison in Georgia. Importantly for our study, we observe rich information regarding the parole board decisions, such as parole conditions, and prisoner outcomes, such as recidivism. We merge these two datasets on the date the prisoner is rated by the Grid.[15] We further restrict our sample to male prisoners that are eligible for parole.[16]

We present summary statistics of our outcomes and parole board composition variable in Table 1.[17] In our estimation sample, the average prisoner faces a parole board that has

[12]We assigned race classifications for parole board members based on publicly available photographs rather than self-reported data. While this method provides a consistent approach to categorization, it may be subject to limitations in accurately capturing individual racial identities.

[13]We want to note that sometimes the parole board does not always consists of five members. This usually happens during parole member transitions.

[14]Figure A1 presents the overall distribution of the parole board composition over the entire estimation sample period.

[15]Unfortunately, we do not observe the exact date on which each parole board member reviews prisoner's parole file. However, we use the rate date as the earliest date on which the parole file is ready to be reviewed by the board. We do not believe that this poses a significant concern, as the parole board composition changes infrequently. Moreover, we account for uncertainty in board assignment by excluding cases where it is unclear whether the file was reviewed before or after a change in composition, and we conduct a sensitivity test to examine the robustness of our results to possible variations in assigned parole boards.

[16]When we incorporate female inmates back into the sample, our primary results remain qualitatively similar.

[17]We also construct figures that show the board composition variation alongside the variation in outcomes over time, see Figures A2 and A3 in the Appendix. The raw patterns are noisy but broadly consistent with smaller racial gaps as board diversity increases.

about 38% Black members.[18] The vast majority of prisoners are released on parole (73.1%), and about 33% return back to prison within 3 years of release. On average, the parole board agrees with the Grid-recommended TPM 59% of the time and increases it 31% of the time. Given that, it is not surprising that on average the board extends the guidelines recommended TPM by about 2 months. We also observe that it is more likely that prisoners receive a post-parole condition and have a nonviolent disciplinary charge.

We also report the summary statistics that describe the prison population of our sample in Table A1. Notably, 60% of prisoners in our sample are Black and two-thirds have less than high school degree. On average, prisoners are thirty years old at sentencing and receive a 4 year sentence. The majority of prisoners are incarcerated because of a property crime.

4 Empirical Strategy

We estimate the following regression equation:

$$\begin{aligned} Y_{it} = \alpha_0 + \alpha_1 comp_{it} + \alpha_2 (comp_{it} \times Black_i) + \alpha_3 BoardCharact_{it} \\ + \alpha_4 BoardCharact_{it} \times Black_i + \alpha_5 X_i + \alpha_6 t + \alpha_7 (t \times Black_i) + \pi_{R \times t} + \varepsilon_{it} \end{aligned} \tag{1}$$

where Y_{it} refers to prisoner outcome of interest, such as whether the board agrees with the Grid-recommended TPM or whether it grants parole, for prisoner i rated in month t.[19] $Black_i$ is a binary indicator variable that takes the value of one if the prisoner is Black and zero otherwise. $comp_{it}$ is the percent of Black members of the parole board that decides on the parole case of prisoner i in month t. Ideally, we would like to observe exactly which members vote on each parole file, but this is not available in our data because the individual votes are classifies as "state secrets." We instead assign each prisoner to the parole board that they were likely to engage with based on the date the parole file was rated by the Grid.[20]

[18] Note that the composition variable is scaled by factor of 10 for a cleaner presentation of our regression results.

[19] Refer to Table 1 for the full list of outcomes.

[20] From conversation with the Georgia parole board administrators, the board starts reviewing files soon

For the same reason, we also restrict our sample to a "donut sample" which excludes inmates who had their rate dates within six months of a board transition as their treatment status may be ambiguous.[21] Our results should be interpreted as *intent-to-treat* effect of increasing the probability of prisoner's parole case being reviewed by a more racially diverse board.

$BoardCharact_{it}$ is a vector of parole board characteristics, including the average tenure of board members and the percentage of members who are female, have more than a college education, or were appointed by a Republican governor. We also include an interaction between this vector and an indicator for whether the inmate is Black, which strengthens our control function approach by allowing parole board characteristics to differentially affect inmates based on race. By including these variables we aim to control for other changes in parole board that could be correlated with changes in its racial composition.[22] For example, it could be that the appointment of a new black board member is correlated with the election of a new democratic governor, who on the other hand, could implement new liberal prison re-entry policies. Controlling for the average tenure of the parole board members is important in order to isolate the effect of changes in the racial composition of the board from any other changes in its membership.

X_i is a vector of individual characteristics listed in Table A1, such as race, gender, and criminal offense, and success score and crime severity level controls. $\pi_{R\times t}$ are rater-by-year fixed effects to account for any observable rater specific heterogeneity of how the parole file is prepared and presented to the board. The fixed effects also account for rater-year trends in parole outcomes over the sample period.[23] Finally, we include race-specific linear trends

after the rating file is complete. This eases some of our concerns that our results could be subject to measurement error if the parole reviews the files away from the rate date.

[21] We find that most inmates in the data have parole outcomes recorded within 6 months of their rate date, and use that as a conservative window. As a further sensitivity check, we also restrict the sample to cases where there were no board composition changes between the TPM and release date, and find that our main results are robust (Tables A4–A7 in the Appendix.)

[22] Ideally, we would control for a range of parole board member characteristics, including political affiliation. However, such information is not consistently available in our data, aside from gender, race, and education.

[23] We note that our rater-year fixed effects run from August to July to account for the fact that most board changes occur at the start of the calendar year. These fixed effects thus capture the window surrounding the board change date each year.

$(t \times Black_i)$ to capture cross-year trends in the racial gap of our outcomes. We cluster the error terms ε_{it} by rater-year.

The parameter α_1 captures the primary composition effect–that is, the impact of an increase in the proportion of Black parole board members on prisoner outcomes. The identifying variation arises from within-rater-year shifts in board composition, specifically when a Black parole board member is appointed to a seat previously held by a White member. The parameter α_2 captures the *differential* effect of board racial composition on outcomes for Black versus White inmates–specifically, the interaction between board composition and being a Black prisoner. We call this effect the race-specific composition effect. The identifying variation for the race-specific composition effect draws on between-year variation in the Black-White gap of the outcome variable.

To assess whether changes in parole board composition coincide with race-specific shifts in observable prisoner characteristics, we conduct a set of balance test regressions. We test whether the coefficients on board composition differ significantly across Black and white inmates. This approach allows us to evaluate whether the racial composition of the board is systematically associated with underlying prisoner traits in a race-specific manner. Since our primary coefficient of interest interacts with board composition with prisoner race, this check addresses the possibility that the observed race-specific composition effects are confounded by concurrent changes in prisoner characteristics that differ by race. We report the results in Table A2 and find insignificant and small in magnitude estimates, indicating that board composition is not changing in a race-specific way at the same time as other characteristics of the prisoners might be changing.[24] Although we are unable to directly make use of random assignment of parole files to board members as an identification strategy because we do not observe which parole board members vote on which cases, we note that random assignment of cases to parole members is important to ensure that black prisoners are not systematically being assigned to black (or white) parole board members.

[24]We note that two coefficients could not be tested directly due to near-multicolinearity issues as they were exceptionally small categories (IQ$<$ 60 and Other Education).

5 Results

5.1 Parole process

We present our main results of the racial composition of the parole board on various aspects of the parole process and prisoner outcomes in Table 2 and Table 3. Across the board, we find that our estimates are robust to the fixed effects included, the addition of board controls, race-specific time trends, and interacted controls between race and board characteristics. We consider the regression in Column (5) to be our preferred specification and focus on those estimates for interpretation.

First, we estimate the link between the racial composition of the parole board and how the board engages with the Grid guidelines and whether it deviates from the guidelines recommendation in a significant way. We present our results in Table 2.

Estimates from Panel A, column (5), indicate that increasing minority representation on the parole board leads to a 1.7 p.p. decline in agreement with guideline recommendations– reflecting the primary composition effect. This estimate is negative but not statistically significant in our preferred specification. A similar pattern holds for the race-specific composition effect: the racial gap in the board agreeing with the guideline recommendations narrows by 3.7 p.p. points as minority representation increases.

To unpack the primary composition effect further, we look at the way the board deviates from the guidelines in Table 2 Panels B and C. When the board has more minority board members, it is about 4.4 p.p. less likely to increase the guidelines recommended TPM and also about 6.1 p.p. more likely to be more lenient than the guidelines. These countervailing effects explain the overall null result.

Moreover, for Black inmates relative to White inmates (estimated race-specific composition effect), an increase in minority board membership leads to a small and statistically insignificant additional 1.5 p.p. reduction in the probability of choosing a harsher parole outcome than the guidelines, and a statistically significant 5.2 p.p. increase in the probabil-

ity of choosing a more lenient outcome than the guidelines. Indeed, Panel D underlines this, showing that Black inmates served 63 fewer days than the guidelines-recommended TPM, relative to White inmates.[25]

These results can be explained by an adjustment in the relative harshness of the board toward Black and White inmates who qualify for parole upon the inclusion of more minorities on the board. One possible mechanism is that the appointment of an additional minority board member directly affects parole decisions through their vote. Another mechanism is that existing board members may adjust their voting behavior after the appointment, either by reassessing their priors about Black inmates or by adapting to new decision-making dynamics within the board. The additional minority board member may contribute to both effects– informing the perceptions of other board members while also directly influencing outcomes through their own voting behavior.[26] However, since voting records are unavailable, we are unable to empirically disentangle whether the observed shifts are driven primarily by a direct swing vote effect or by adjustments in the voting behavior of existing board members.

Table 3 reports the effect of an increase in minority membership on overall parole outcomes. We find small and insignificant impact overall on the Black-White gap in parole probabilities after an increase in minority membership (Panel A). We also evaluate the impact on time served in prison in Table 3 Panel C and find that an additional Black member on the parole board statistically significantly reduces prison time by about 44 days for Black inmates relative to White inmates, indicating an intensive margin effect for Black inmates although the extensive margin did not change. Panel B documents that the probability of having post-parole conditions increases for Black inmates as Black membership of the board increased, although the impact is somewhat noisy and does not survive the addition of richer

[25]We observe only the final TPM date set by the board, and we have no information on whether parole files have been reconsidered multiple times. Thus, our results should be interpreted as the effect of parole board composition on the last TPM set by the board before a prisoner is released.

[26]These dynamics reflect broader patterns observed in the criminal justice system. For instance, Harris (2023) finds that the addition of a Black colleague to the judicial bench contributes to a reduction in the Black-White incarceration gap. However, the study is unable to disentangle the specific mechanisms driving this effect.

board controls.

To understand the post-parole conditions results in Panel B better, we first observe that the two most common post-release parole conditions are drug assessment and alcohol counseling.[27] In Appendix Table A3, we show the effect of racial composition of the parole board on indicators for whether released prisoners received drug assessment or alcohol counseling conditions specifically.[28] We observe that when the board has more minority board members, Black inmates are more likely to receive alcohol counseling conditions elative to White inmates but less likely to receive drug assessment conditions relative to White inmates. These counteracting forces explain the small effect on parole conditions overall.

These changes in parole decision-making process in response to changes in the racial composition of the board tell one-half of the story in the release of prisoners. It is possible that the longer parole lengths (and hence shorter sentence served) and differential post-parole conditions for Black inmates when Black board members joined the board had implications for parole violations and recidivism more broadly.

5.2 Recidivism

We now turn to investigate the links between parole boards and recidivism. We show in Table 4 Panel B that a 10% increase in Black membership on the parole board is associated with an approximately 8 p.p. decrease in parole violations for Black inmates. Looking back at our parole results, combined with the earlier releases for Black inmates when Black members are included in the parole board, this suggests better parole decision making with regard to Black inmates when minority members join the board. Furthermore, overall 3-year recidivism for Black inmates also declines as Black members join the parole board (Table 4 Panel A). This suggests that the more lenient parole decisions may also have been beneficial

[27] A drug assessment is an in-depth process that determines if a person released on parole is dealing with drug addiction. It is an evaluation that determines how severe one's addiction, if they have one, as well as any other issues that may be related to drug substance abuse.

[28] We note that these conditions are only observed for a subset of the years covered by our main sample, so the sample size is considerably smaller.

for lowering overall recidivism.

A possible explanation for this finding might be in the conditions of parole imposed on released prisoners, as seen in our results from Table A3. If the parole board is more likely to impose conditions that deter crime as the racial diversity of the board increases, then it could explain the lower recidivism rates for Black inmates. As mentioned above, we find Black inmates probabilities of having a drug counseling post-parole condition decreases while that of having a alcohol counseling post-parole condition increases with parole board minority membership. In light of LaForest (2022a)'s finding of strong negative effects on recidivism for parolees attending alcohol support groups or receiving mental health counseling, our finding that Black inmates are more likely to assign alcohol counseling as a pre-parole condition when the board becomes more diverse could explain the overall recidivism results we observe in Table 4 Panel B.

Our recidivism results can be viewed through the lens of the discrimination literature as well. The negative link between minority membership and recidivism is consistent with previous studies that find little evidence for discrimination in the parole process (Mechoulan and Sahuguet, 2015; Anwar and Fang, 2015). To see this, we begin with the setup from Mechoulan and Sahuguet (2015), where parole boards make parole decisions primarily based on the probability of violating parole. If inmates are more likely to violate parole than a given threshold level, then the board should keep them in the prison system (paying the cost of incarceration) until that propensity drops down below the threshold. Under such a regime, absent of racial bias generating different thresholds, the rates of parole violations for otherwise comparable released parolees should not be affected by the person's race. In our setting, the guidelines success score uses a comprehensive set of individual's observables to determine the risk of recidivism to guide the parole board, and hence forms a reasonable basis of comparison across inmates. We therefore plot parole violations for statutory eligible-for-parole inmates (those who served between 33% and 100% of their sentences) by race and success score as the parole board composition changes (see Figure 2). The plots

make it clear that there exists a Black-White gap in parole violation rates when the parole board is all White, where Black violation rates are *higher*. This echoes the findings of Mechoulan and Sahuguet (2015), indicating that at least on the parole decision, board members are *underestimating* recidivism risk for Black inmates relative to White inmates, such that Whites have higher parole success rates. However, that gap closes when the board has at least one Black member. Black parolees are *more likely* to commit parole violations prior to the inclusion of Black members on the board, conditional on the same success score.[29]

Our results therefore do not support the predictions generated by a model of taste-based discrimination where minority board members lower the incidence of discrimination. Instead, our results support the view that it is the combination of parole leniency and more effective parole conditions that are the more relevant mechanisms for explaining lower recidivism rates among Black inmates. These results also relate to a recent paper by Rose (2021) who finds that reducing punishments for technical violations on probation narrows racial gaps in recidivism. This is driven by the fact that rules on fees and fines from technical violations prove ineffective at identifying reoffenders. A potentially similar mechanism relating parole conditions to recidivism may be at play in our setting.

5.3 Heterogeneity

We now show results on heterogeneity by whether the person is a first-time offender, has committed a serious crime, or is over 25 years of age, as these are major predictors of recidivism risk and success scores. We present these results in Table 5. We find that our main effects do not seem to be heterogeneous across major predictors of recidivism risk, with the exception of the time served outcome. Persons with no prior convictions, more severe crime convictions, and who are older, experience fewer days served for Blacks relative to Whites in prison.

Finally, we explore heterogeneity by the number of board members who are Black. The

[29]We also apply the framework from Mechoulan and Sahuguet (2015) in regression form (see Appendix Table A8) and find that the estimates are consistent with Appendix Figure A4.

presence of Black parole board members may influence decision-making through multiple mechanisms, including signaling effects, swing-vote dynamics, or information effects. A single minority member could shift perceptions of fairness, encourage broader discussions on equity, or subtly influence the expectations of other board members. Additionally, their appointment may directly affect parole decisions if voting margins are narrow or if they introduce new insights that shape the priors of existing board members regarding Black inmates. Although we cannot directly test the specific mechanism at play, we examine whether Black inmates experience different effects based on the number of Black board members—whether outcomes change when the board gains its first, second, or third Black member, with the latter securing a majority. These results are presented in Figure 3. While our findings suggest that the effects tend to strengthen as more Black members are added, the estimates remain noisy, and we caution that standard errors are large.

6 Conclusions

This paper investigates the impacts of the racial diversity of the Georgia parole board on prisoner experience while in prison and outcomes post-release. We rely on variation in parole board racial composition from the replacement of a white parole board member with black. Our results show that an increase in minority share of the parole board leads to a more lenient application of the parole guidelines, less prison time, and earlier granted parole for Black prisoners. To ensure that this leniency is warranted, we check post-release outcomes of prisoners and find that even with early release, a 10% increase in minority share of the parole board is associated with a decrease in recidivism after 3 years by almost 16 percentage points for Black prisoners. This implies that the shift towards leniency by the board is likely driven by informed decision-making and not just homogeneity bias. Our findings that a more diverse parole board leads to decreases in recidivism rates has important implications given the interest of practitioners and policy-makers across the country to reduce recidivism rates

and the mixed results of the effectiveness of various re-entry programs (Doleac, 2019).

A key limitation of our analysis is the challenge of isolating the effects of racial composition from other factors that may accompany changes in board composition, such as broader political and ideological shifts. Newly appointed Black board members may also tend to be more politically liberal, raising the possibility that our findings reflect both racial and ideological influences. Additionally, shifts in board composition often coincide with changes in executive leadership, such as the election of a new governor or the appointment of a corrections commissioner, both of whom may introduce policy reforms that shape parole decisions. While we account for these dynamics by controlling for the governor's political affiliation, the absence of individual board member voting records prevents a direct assessment of whether newly appointed Black members vote differently from existing members or whether existing members modify their decisions in response to board composition changes. Future research with access to hearing-level voting data would be valuable in further disentangling these mechanisms and deepening our understanding of how board composition influences parole outcomes.

Within the broader literature, this paper contributes to the role of diversity in the criminal justice system at the parole stage. The parole stage of the rehabilitation process is imperative to future outcomes of inmates in that it determines both sentence length and parole conditions. We not only find that more diverse boards result in shorter time served for Black inmates relative to White inmates, but also declines in recidivism rates. Taken in combination, these two results suggest that diversity can close racial gaps in an equitable manner.

The state of Georgia is one example, of 35 states, that uses a discretionary parole board. Members of such boards possess power and discretion over the future lives of countless prisoners; and thus, have the potential to either perpetuate or lessen the present racial discrimination in the many levels of the US criminal justice system. Our paper is somewhat limited in its external validity, given that we study a particular institutional setting within

one state. However, we believe this case study can still inform other settings and other dimensions of decision making disparities that may not be justified when looking subsequent outcomes.

Future research should continue to address this stage of the legal process. While we address issues of racial diversity, there are other factors that demand future research, including: gender composition, political alliance, education, or training. More effective parole boards could bring positive change to the lives and recidivism-risk of prisoners, and in turn lessen the financial burden of our prison system and the social costs of crime more broadly.

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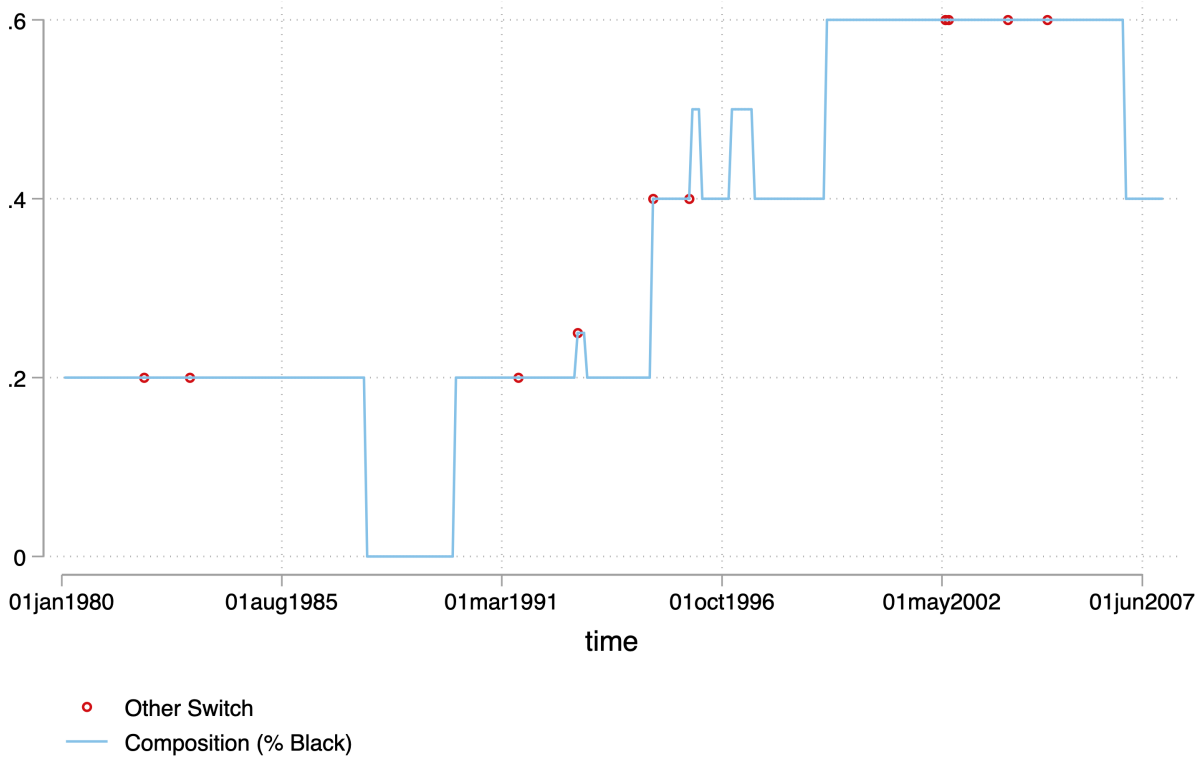
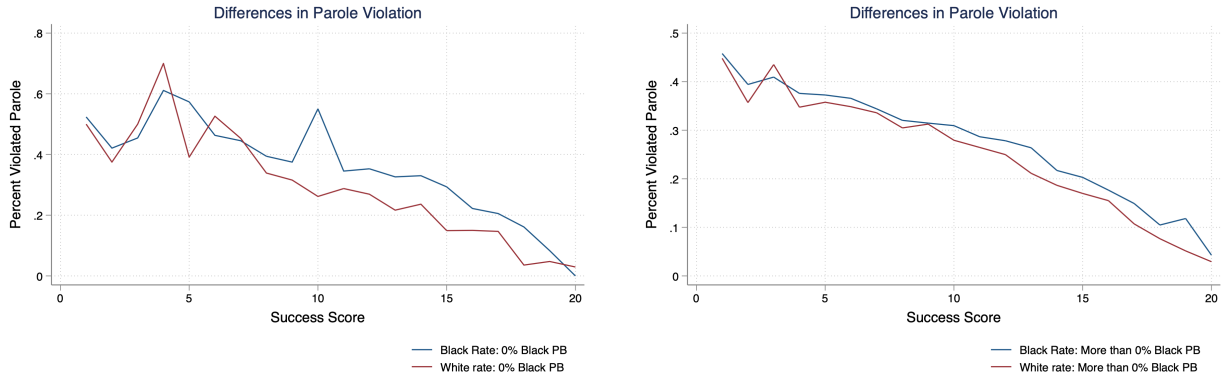
7 Tables and Figures

Figure 1: Parole board racial composition over time



Note: This figure plots changes in the parole board over our sample period. Solid lines indicate changes in the percent of parole board members who are Black while dots are representative of any other type of board transition.

Figure 2: Probability of returning to prison with a parole violation vs guidelines (Grid) success score

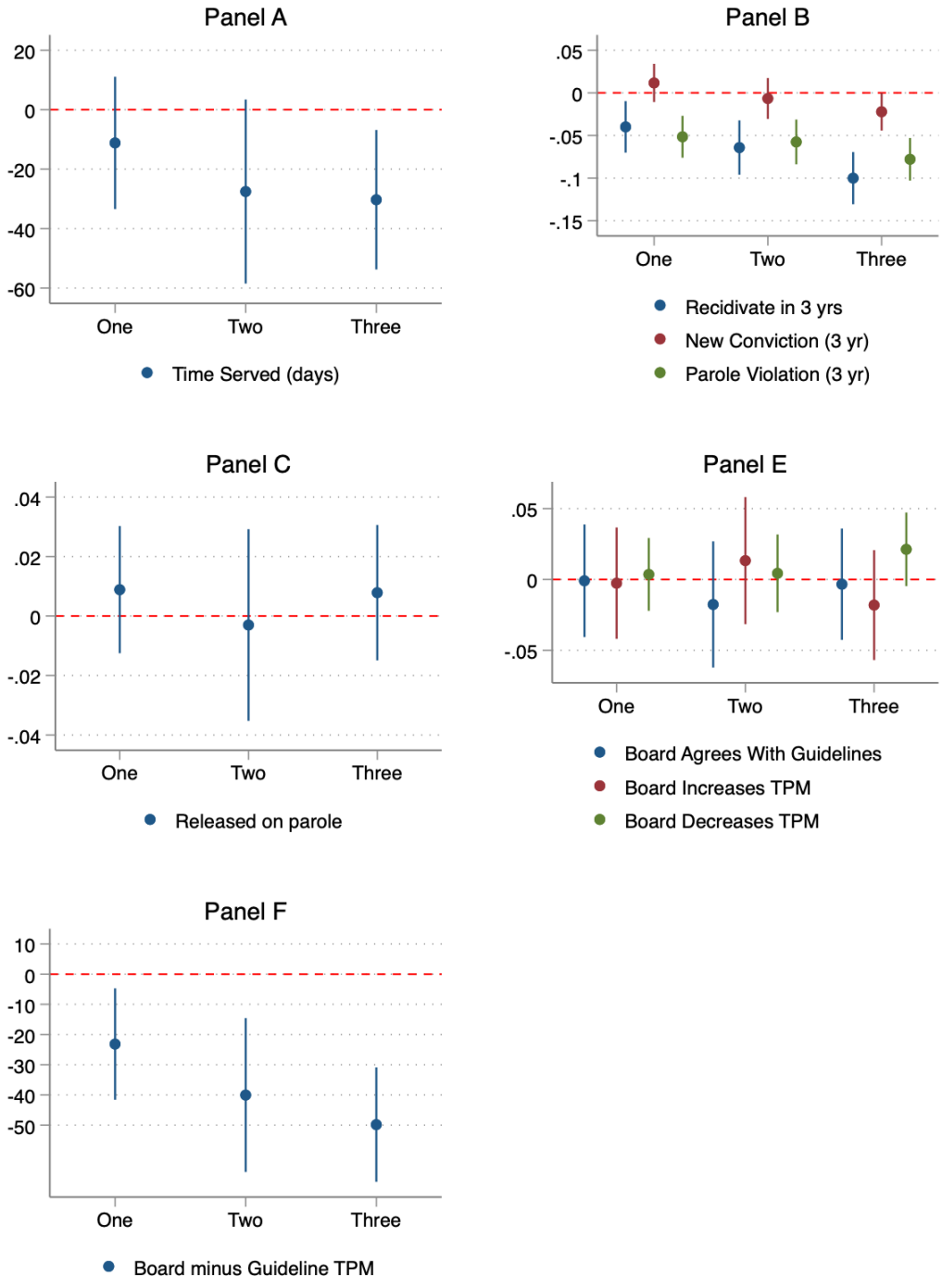


(a) Only White Board Members

(b) At Least One Black Board Member

Note: The y-axis plots the probability of returning to prison because of a parole/probation violation. On the x-axis, we plot the success score. We plot the probability of returning to prison by prisoner race and different parole board compositions. The sample includes only those statutorily-eligible for parole, i.e., prisoners who were released after serving 1/3 of their sentence. Panel (a) presents results for parole boards with no Black members, while Panel (b) displays results for parole boards with at least one Black member.

Figure 3: Prisoner Outcomes by Parole Board Composition



Note: The y-axis plots the coefficients of the indicators for the number of Black members on the board, indicated on the x-axis, interacted with whether the incarcerated person is Black. Regressions include the full specification (column 4 of main OLS tables). Confidence intervals are presented at the 95% level. Regressions are clustered at the rater-year level.

Table 1: Summary statistics: Board Composition and Outcome variables

	Mean	S.D.
Black parole members (comp)	3.818	1.937
Female parole members (comp)	1.752	0.654
Republican appointed members (comp)	0.418	1.131
Highest Education is post-grad (comp)	5.778	1.588
Average Tenure (months)	65.180	22.537
Board Agrees with Recomm.	0.591	0.492
Board Increases Recomm.	0.313	0.464
Board Decreases Recomm.	0.096	0.295
Board minus Guidelines TPM	55.787	376.293
Released on parole	0.731	0.444
Any post-parole condition	0.376	0.484
Time Served	656.900	485.072
Drug Assessment Cond.	0.332	0.471
Alcohol Counseling Cond.	0.026	0.159
Recidivate in 3 years	0.336	0.472
Recid. with New Conviction (3 yrs)	0.140	0.347
Violated Parole (3 Yrs)	0.197	0.397
N	96441	

Notes: The table shows summary statistics of our main variable of interest that measures the proportion of Black parole board members serving on the board as well as all the outcomes of interest. A Black comp mean of 3.6 signifies that on average 36% of the board was Black throughout our sample. The variables that measure the difference between board-recommended TPM and Grid-stipulated TPM and Time Served are measured in days. Data source: Georgia Prison and Conviction Data.

Table 2: Parole Decision-Making

Panel A: Board agrees with the Grid-recommended TPM					
	(1)	(2)	(3)	(4)	(5)
Comp	-0.0591**	-0.0590**	-0.0190	-0.0187	-0.0168
	(0.0275)	(0.0275)	(0.0174)	(0.0174)	(0.0175)
Comp x Black		-0.0008	-0.0020	-0.0078	-0.0369
		(0.0172)	(0.0172)	(0.0175)	(0.0249)
Mean Dept. Var.	0.591	0.591	0.591	0.591	0.591
R-squared	0.189	0.189	0.193	0.193	0.193
N	96441	96441	96441	96441	96441
Panel B: Board increases the Grid-recommended TPM					
	(1)	(2)	(3)	(4)	(5)
Comp	-0.0144	-0.0114	-0.0417***	-0.0425***	-0.0439***
	(0.0133)	(0.0134)	(0.0140)	(0.0140)	(0.0141)
Comp x Black		-0.0485***	-0.0465**	-0.0344*	-0.0145
		(0.0180)	(0.0181)	(0.0179)	(0.0242)
Mean Dept. Var.	0.313	0.313	0.313	0.313	0.313
R-squared	0.196	0.196	0.201	0.201	0.201
N	96441	96441	96441	96441	96441
Panel C: Board decreases the Grid-recommended TPM					
	(1)	(2)	(3)	(4)	(5)
Comp	0.0736***	0.0706***	0.0609***	0.0614***	0.0609***
	(0.0220)	(0.0220)	(0.0177)	(0.0177)	(0.0177)
Comp x Black		0.0490***	0.0482***	0.0418***	0.0515***
		(0.0111)	(0.0111)	(0.0110)	(0.0144)
Mean Dept. Var.	0.096	0.096	0.096	0.096	0.096
R-squared	0.107	0.108	0.110	0.110	0.110
N	96441	96441	96441	96441	96441
Panel D: Difference between board-established and Grid-recommended TPM					
	(1)	(2)	(3)	(4)	(5)
Comp	-21.5336**	-16.6888*	-36.4134***	-36.7304***	-37.3205***
	(9.3513)	(9.4160)	(12.7537)	(12.7606)	(12.7249)
Comp x Black		-78.0334***	-76.3898***	-71.4196***	-62.8829***
		(10.9324)	(10.9261)	(10.7860)	(17.9840)
Mean Dept. Var.	55.787	55.787	55.787	55.787	55.787
R-squared	0.352	0.352	0.356	0.356	0.357
N	96441	96441	96441	96441	96441
Rater-year FE	X	X	X	X	X
Other Board Controls			X	X	X
Race-Specific Linear Time Trend				X	X
Board Controls × Prisoner Race					X

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics (sex, race, IQ, indicators for having children or being married, social class, age), crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level. Other board controls include percent of parole board members who are female, appointed by a republican governor, or have post-graduate studies as their highest level of education. Standard errors are clustered by rater-year.

*** p<0.01, ** p<0.05, * p<0.1

Table 3: Parole Outcomes

	Panel A: Probability of parole				
	(1)	(2)	(3)	(4)	(5)
Comp	0.0424***	0.0423***	0.0360***	0.0361***	0.0353***
	(0.0088)	(0.0088)	(0.0102)	(0.0102)	(0.0102)
Comp x Black		0.0013	0.0007	-0.0009	0.0135
		(0.0146)	(0.0146)	(0.0146)	(0.0266)
Mean Dept. Var.	0.731	0.731	0.731	0.731	0.731
R-squared	0.361	0.361	0.362	0.362	0.362
N	96441	96441	96441	96441	96441
	Panel B: Probability of having any post-parole condition				
	(1)	(2)	(3)	(4)	(5)
Comp	-0.1174**	-0.1285**	0.0402***	0.0402***	0.0489***
	(0.0543)	(0.0540)	(0.0053)	(0.0053)	(0.0068)
Comp x Black		0.1685**	0.1685**	0.1685**	0.0099
		(0.0749)	(0.0749)	(0.0749)	(0.1123)
Mean Dept. Var.	0.451	0.451	0.451	0.451	0.451
R-squared	0.097	0.097	0.097	0.097	0.098
N	12976	12976	12976	12976	12976
	Panel C: Time Served in Prison (days)				
	(1)	(2)	(3)	(4)	(5)
Comp	-22.6728**	-19.3519*	-41.7313***	-41.8533***	-42.2329***
	(9.9935)	(10.1029)	(15.5430)	(15.5464)	(15.5032)
Comp x Black		-53.4869***	-51.7886***	-49.8760***	-44.3866**
		(13.0917)	(13.0924)	(13.1905)	(21.4591)
Mean Dept. Var.	656.900	656.900	656.900	656.900	656.900
R-squared	0.523	0.523	0.526	0.526	0.526
N	96441	96441	96441	96441	96441
Rater-year FE	X	X	X	X	X
Other Board Controls			X	X	X
Race-Specific Linear Time Trend				X	X
Int. Board Controls with Prisoner Race					X

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics (sex, race, IQ, indicators for having children or being married, social class, age), crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level. Other board controls include percent of parole board members who are female, appointed by a republican governor, or have post-graduate studies as their highest level of education. Panel B is further restricted by whether a prisoner ever was on parole and if they were released before their sentence was completed. Standard errors are clustered by rater-year.

*** p<0.01, ** p<0.05, * p<0.1

Table 4: Recidivism Outcomes

Panel A: Probability of recidivism within 3 years of release					
	(1)	(2)	(3)	(4)	(5)
Comp	0.0235***	0.0328***	0.0397***	0.0397***	0.0403***
	(0.0066)	(0.0068)	(0.0071)	(0.0071)	(0.0070)
Comp x Black		-0.1501***	-0.1509***	-0.1499***	-0.1615***
		(0.0146)	(0.0146)	(0.0148)	(0.0201)
Mean Dept. Var.	0.336	0.336	0.336	0.336	0.336
R-squared	0.106	0.107	0.107	0.107	0.107
N	96441	96441	96441	96441	96441
Panel B: Return to prison for parole violation within 3 years					
	(1)	(2)	(3)	(4)	(5)
Comp	0.0213***	0.0260***	0.0241***	0.0242***	0.0247***
	(0.0050)	(0.0051)	(0.0054)	(0.0054)	(0.0054)
Comp x Black		-0.0750***	-0.0755***	-0.0770***	-0.0848***
		(0.0131)	(0.0132)	(0.0133)	(0.0181)
Mean Dept. Var.	0.197	0.197	0.197	0.197	0.197
R-squared	0.108	0.108	0.108	0.108	0.108
N	96441	96441	96441	96441	96441
Rater-year FE	X	X	X	X	X
Other Board Controls			X	X	X
Race-Specific Linear Time Trend				X	X
Int. Board Controls with Prisoner Race					X

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics (sex, race, IQ, indicators for having children or being married, social class, age), crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level. Other board controls include percent of parole board members who are female, appointed by a republican governor, or have post-graduate studies as their highest level of education. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

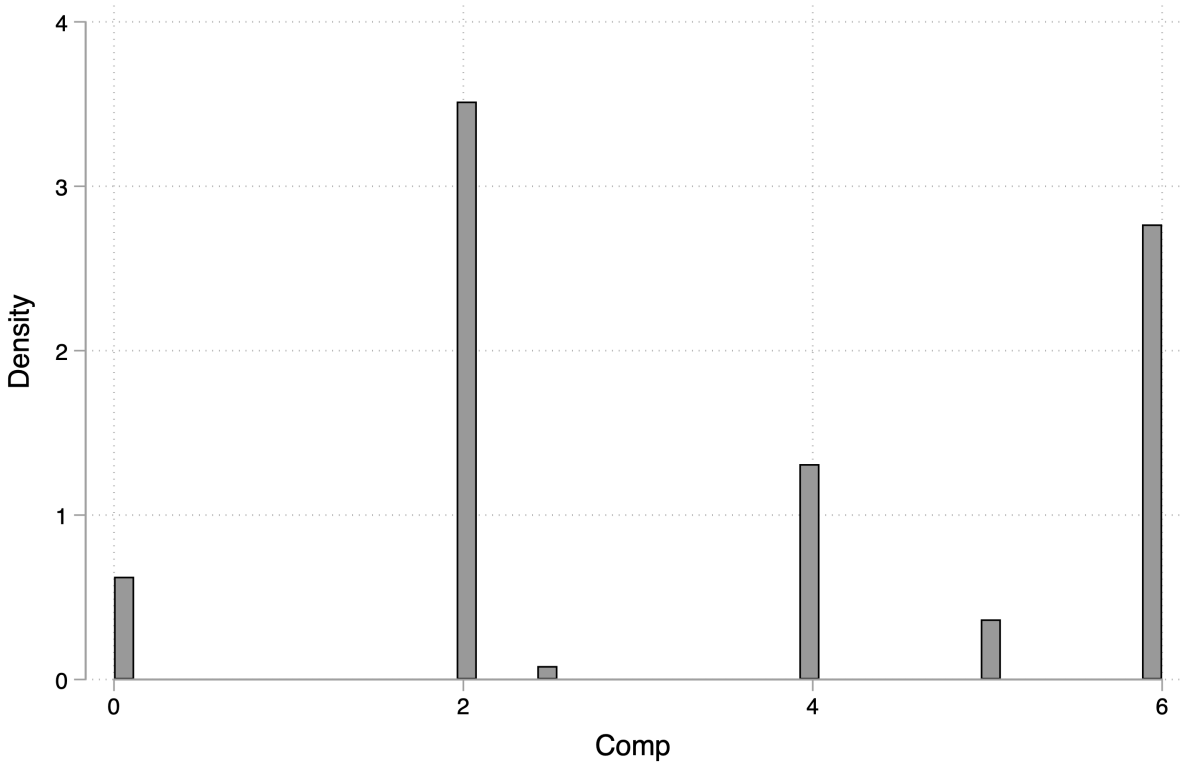
Table 5: Additional Heterogeneity Analysis

	Panel A: First Time Offenders			
	(1)	(2)	(3)	(4)
	Time Served (days)	Recidivate in 3 years	Recid. with New Conv. (3 yrs)	Violated Parole (3 Yrs)
Comp x Black	-28.6212	-0.1551***	-0.0725***	-0.0826***
	(20.2258)	(0.0201)	(0.0172)	(0.0181)
No Prior Convs. × Black × Comp	-3.4910***	-0.0020*	-0.0014	-0.0006
	(1.2759)	(0.0012)	(0.0011)	(0.0010)
Mean Dept. Var.	656.900	0.336	0.140	0.197
R-squared	0.526	0.107	0.039	0.108
N	96441	96441	96441	96441
	Panel B: Those Rated as High Severity (5-7)			
	(1)	(2)	(3)	(4)
	Time Served (days)	Recidivate in 3 years	Recid. with New Conv. (3 yrs)	Violated Parole (3 Yrs)
Comp x Black	-28.0544	-0.1568***	-0.0691***	-0.0877***
	(20.0075)	(0.0206)	(0.0170)	(0.0185)
High Severity Level (5-7) × Black × Comp	-9.8889***	-0.0021	-0.0028**	0.0007
	(1.4821)	(0.0016)	(0.0013)	(0.0010)
Mean Dept. Var.	656.900	0.336	0.140	0.197
R-squared	0.529	0.107	0.040	0.109
N	96441	96441	96441	96441
	Panel C: Individuals Over 25 Years Old			
	(1)	(2)	(3)	(4)
	Time Served (days)	Recidivate in 3 years	Recid. with New Conv. (3 yrs)	Violated Parole (3 Yrs)
Comp x Black	-27.8368	-0.1242***	-0.0690***	-0.0552**
	(23.0685)	(0.0240)	(0.0191)	(0.0215)
Over 25 × Black × Comp	-3.0056**	-0.0048***	-0.0013	-0.0034**
	(1.1704)	(0.0016)	(0.0012)	(0.0013)
Mean Dept. Var.	656.900	0.336	0.140	0.197
R-squared	0.526	0.108	0.039	0.109
N	96441	96441	96441	96441

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. Regressions are consistent with our main specification in column 5 of main tables. Specifically, in all regressions we control for the average tenure of the parole board as well as prisoner demographic and crime characteristics. Other board controls and board controls interacted with race. Finally, race-specific linear time trends and rater-year fixed effects. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

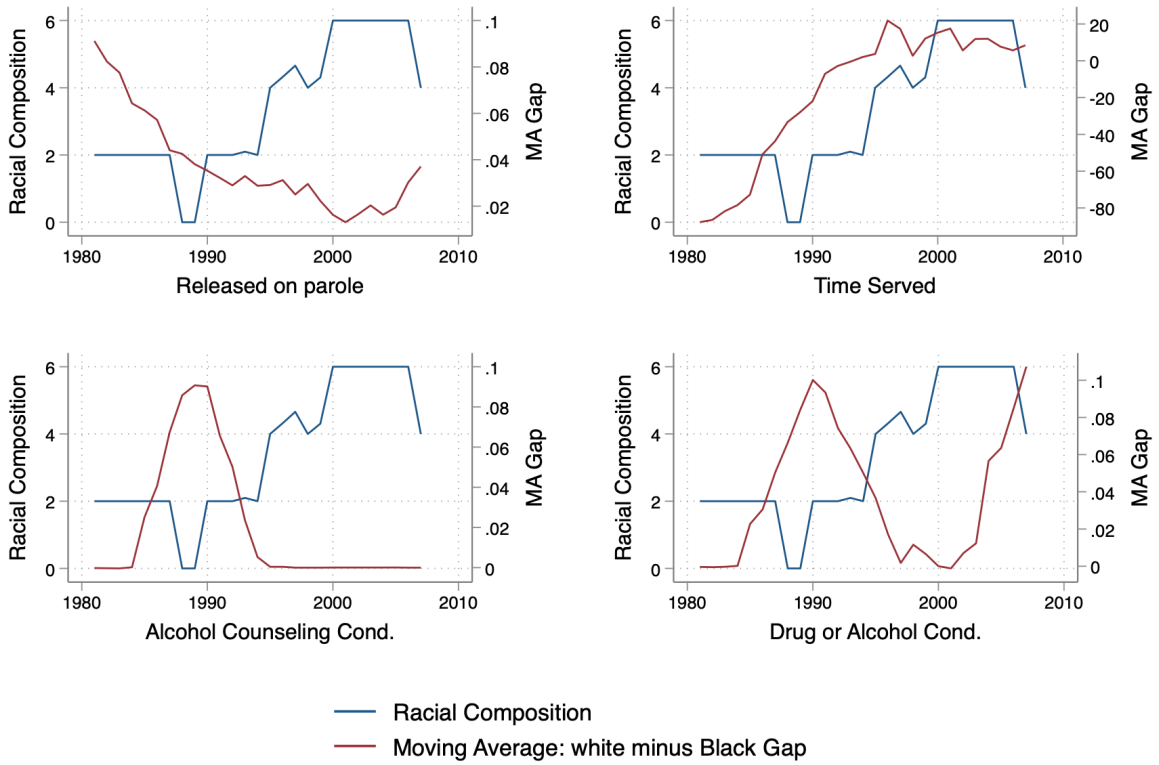
A Appendix

Figure A1: Distribution of the racial composition of Georgia parole board



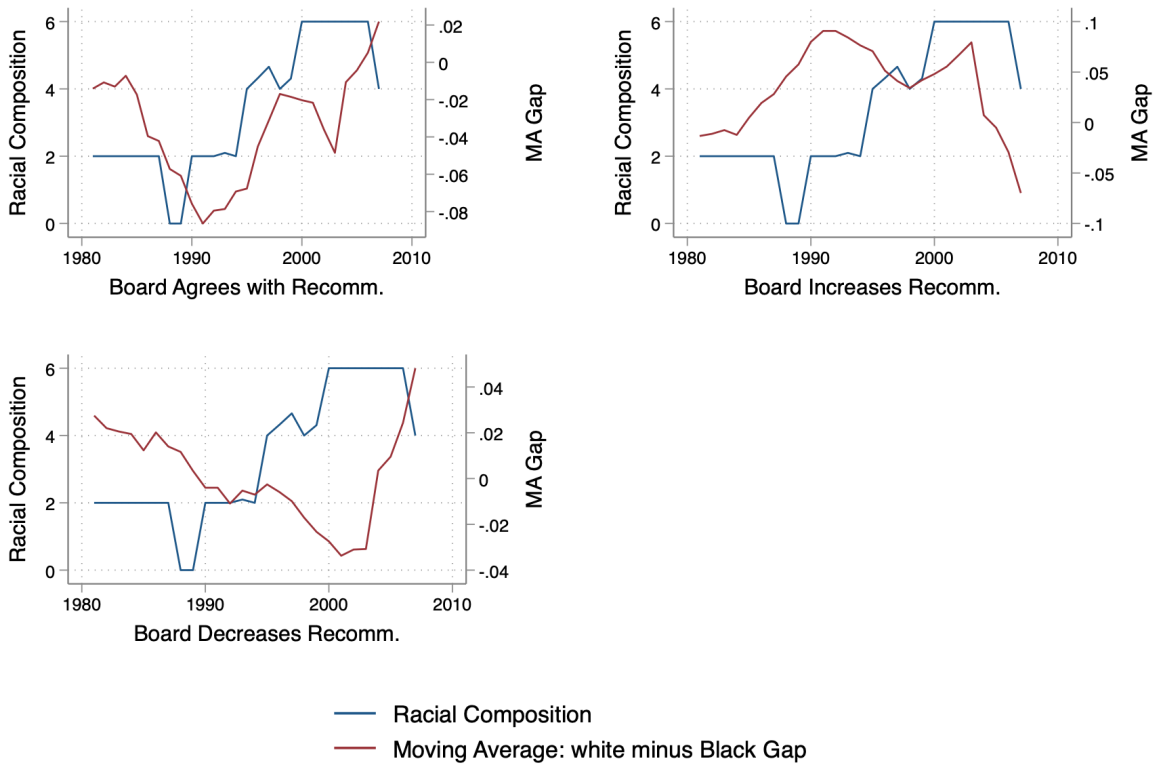
Note: This figure shows the distribution of the the percent of parole board members who are Black in our estimation sample.

Figure A2: Black Relative to White Inmate Outcome Gap vs Parole Board Composition



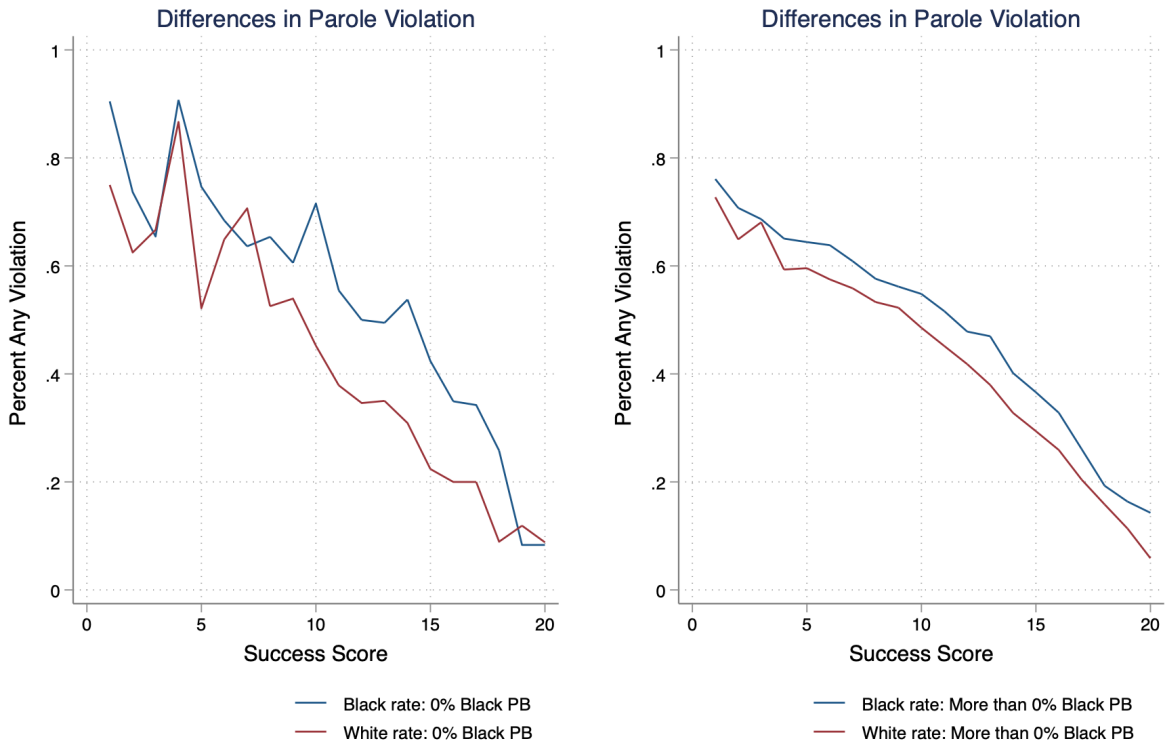
Notes: This figure comprises four panels, each corresponding to a different outcome of interest, as indicated below the x-axis. Each panel includes two y-axes: the left y-axis plots the racial composition of the parole board over time (with a value of 6 representing a 60% Black board), and the right y-axis shows the moving average racial gap in the specified outcome. The racial gap is calculated as the difference between annual averages for Black and White prisoners. A uniform moving average is then applied to these yearly gaps, using two lags, the current observation, and three leads.

Figure A3: Black Relative to White Inmate Outcome Gap vs Parole Board Composition



Notes: This figure comprises four panels, each corresponding to a different outcome of interest, as indicated below the x-axis. Each panel includes two y-axes: the left y-axis plots the racial composition of the parole board over time (with a value of 6 representing a 60% Black board), and the right y-axis shows the moving average racial gap in the specified outcome. The racial gap is calculated as the difference between annual averages for Black and White prisoners. A uniform moving average is then applied to these yearly gaps, using two lags, the current observation, and three leads.

Figure A4: Probability of returning to prison with a parole/probation violation or a new sentence vs guidelines success score



Note: The y-axis plots the probability of returning to prison. The reason for a return to prison can be due to either a new conviction or a parole/probation violation. On the x-axis we plot the success score. We plot the probability of returning to prison by prisoner race and different parole board compositions. The sample includes all prisoners regardless of what fraction of their sentence they have served.

Table A1: Summary statistics: Control variables

	Mean	S.D.
Black	0.601	0.490
Sentence Length (days)	1463.308	731.862
Less than HS	0.665	0.472
HS Diploma	0.239	0.427
Some College	0.082	0.274
Graduate School	0.013	0.113
Other Education	0.001	0.025
IQ: less than 60	0.006	0.080
IQ: First Quantile	0.237	0.425
IQ: Second Quantile	0.233	0.423
IQ: Third Quantile	0.276	0.447
IQ: Fourth Quantile	0.248	0.432
Has Kids	0.625	0.484
Married	0.154	0.361
Age at Sentencing	30.218	9.311
Welfare	0.076	0.265
Occassioinaly Employed	0.047	0.212
Minimum Standard	0.411	0.492
Middle Class	0.434	0.496
Other Social Class	0.031	0.175
Zero Prior Convictions	0.348	0.476
1 Prior Conviction	0.157	0.364
2-3 Prior Convictions	0.205	0.403
4-7 Prior Convictions	0.187	0.390
8+ Prior Convictions	0.104	0.305
Violent Crimes	0.218	0.413
Drug Related Crimes	0.261	0.439
Property Related Crimes	0.397	0.489
Other Crimes	0.124	0.329
N	96441	

Notes: The table shows summary statistics of the control variables used in our analysis. Data source: Georgia Prison and Conviction Data.

Table A2: Balance tests

Panel A: Education Level					
	HS Diploma	Some College	Graduate School		
Difference in Comp Effect	-0.0001	0.0090	0.0030		
(p-value)	(0.9920)	(0.3618)	(0.4514)		
Panel B: Prior Convictions					
	Zero Prior	1 Prior	2–3 Priors	4–7 Priors	8+ Priors
Difference in Comp Effect	0.0047	0.0136	0.0011	-0.0127	-0.0067
(p-value)	(0.7610)	(0.2814)	(0.9372)	(0.3287)	(0.5223)
Panel C: IQ Distribution					
	1st Quantile	2nd Quantile	3rd Quantile	4th Quantile	
Difference in Comp Effect	0.0000	-0.0097	0.0039	0.0068	
(p-value)	(0.9988)	(0.4840)	(0.7918)	(0.6545)	
Panel D: Social Class					
	Welfare	Minimum Standard	Middle Class	Other Social Class	
Difference in Comp Effect	0.0090	-0.0130	0.0033	-0.0083	
(p-value)	(0.2508)	(0.4085)	(0.8408)	(0.1520)	
Panel E: Demographics					
	Sentence Length (days)	Has Kids	Married	Age at Sentencing	
Difference in Comp Effect	-4.5235	-0.0206	-0.0095	-0.1737	
(p-value)	(0.8510)	(0.2060)	(0.4553)	(0.5796)	
Panel F: Crime Type					
	Violent Crimes	Drug Related Crimes	Property Related Crimes	Other Crimes	
Difference in Comp Effect	-0.0076	-0.0090	0.0063	0.0103	
(p-value)	(0.5673)	(0.5549)	(0.6940)	(0.3536)	

Notes: This balance test presents the difference in the effect of parole board composition for Black and not-Black prisoners. We report the two-sided p-values for the test for equivalence (a zero difference) in the race-specific composition effects. The dependent variable of the regression is listed in the header of each column. In each regression we control for rater-by-year fixed effects. Black sample regression has N = 58,003 and White sample has N = 38,438.

Table A3: Parole conditions

Panel A: Drug Assessment Condition					
	(1)	(2)	(3)	(4)	(5)
Comp	0.1145**	0.1281**	0.1176***	0.1176***	0.1379***
	(0.0489)	(0.0492)	(0.0050)	(0.0050)	(0.0078)
Comp x Black		-0.2060***	-0.2060***	-0.2060***	-0.5497***
		(0.0661)	(0.0661)	(0.0661)	(0.1160)
Mean Dept. Var.	0.286	0.286	0.286	0.286	0.286
R-squared	0.077	0.078	0.078	0.078	0.078
N	12976	12976	12976	12976	12976
Panel B: Alcohol Counseling					
	(1)	(2)	(3)	(4)	(5)
Comp	-0.3026***	-0.3239***	-0.0549***	-0.0549***	-0.0789***
	(0.0498)	(0.0519)	(0.0044)	(0.0044)	(0.0050)
Comp x Black		0.3224***	0.3224***	0.3224***	0.7143***
		(0.0774)	(0.0774)	(0.0774)	(0.0907)
Mean Dept. Var.	0.189	0.189	0.189	0.189	0.189
R-squared	0.145	0.146	0.146	0.146	0.148
N	12976	12976	12976	12976	12976
Rater-year FE	X	X	X	X	X
Other Board Controls			X	X	X
Race-Specific Linear Time Trend				X	X
Int. Board Controls with Prisoner Race					X

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics (sex, race, IQ, indicators for having children or being married, social class, age), crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level. Other board controls include percent of parole board members who are female, appointed by a republican governor, or have post-graduate studies as their highest level of education. These results are further restricted to January 1988 to November 1992 due to changes in institutional use of these conditions. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

Table A4: Sensitivity Test - Parole Decision-Making

Panel A: Board agrees with the Grid recommendation					
	(1)	(2)	(3)	(4)	(5)
Comp	-0.0550**	-0.0553**	-0.0182	-0.0178	-0.0161
	(0.0231)	(0.0231)	(0.0159)	(0.0159)	(0.0161)
Comp x Black		0.0055	0.0044	-0.0015	-0.0296
		(0.0169)	(0.0169)	(0.0171)	(0.0247)
Mean Dept. Var.	0.597	0.597	0.597	0.597	0.597
R-squared	0.189	0.189	0.192	0.192	0.192
N	89062	89062	89062	89062	89062
Panel B: Board increases the Grid recommendation					
	(1)	(2)	(3)	(4)	(5)
Comp	-0.0103	-0.0068	-0.0370**	-0.0378**	-0.0392***
	(0.0133)	(0.0134)	(0.0150)	(0.0150)	(0.0151)
Comp x Black		-0.0578***	-0.0559***	-0.0436**	-0.0213
		(0.0179)	(0.0180)	(0.0177)	(0.0245)
Mean Dept. Var.	0.308	0.308	0.308	0.308	0.308
R-squared	0.197	0.197	0.202	0.202	0.202
N	89062	89062	89062	89062	89062
Panel C: Board decreases the Grid recommendation					
	(1)	(2)	(3)	(4)	(5)
Comp	0.0655***	0.0623***	0.0554***	0.0558***	0.0555***
	(0.0200)	(0.0200)	(0.0168)	(0.0168)	(0.0168)
Comp x Black		0.0519***	0.0511***	0.0446***	0.0511***
		(0.0112)	(0.0112)	(0.0111)	(0.0145)
Mean Dept. Var.	0.095	0.095	0.095	0.095	0.095
R-squared	0.104	0.104	0.106	0.106	0.106
N	89062	89062	89062	89062	89062
Panel D: Difference between board- and Grid-recommended TPM					
	(1)	(2)	(3)	(4)	(5)
Comp	-18.6667*	-13.6362	-34.6683**	-34.9687***	-35.7264***
	(10.0841)	(10.1417)	(13.4146)	(13.4225)	(13.3502)
Comp x Black		-81.4361***	-79.8140***	-75.1802***	-62.8929***
		(10.9239)	(10.9739)	(10.7901)	(18.0301)
Mean Dept. Var.	50.633	50.633	50.633	50.633	50.633
R-squared	0.365	0.365	0.369	0.369	0.369
N	89062	89062	89062	89062	89062
Rater-year FE	X	X	X	X	X
Other Board Controls			X	X	X
Race-Specific Linear Time Trend				X	X
Board Controls × Prisoner Race					X

Notes: The dependent variable is indicated in the header of each panel. The sensitivity analysis is a further restriction of our sample in which we ensure that, for each observation, racial composition of the board at their release date is the same as the composition at the board adjusted temporary parole date. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics, crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level - the same as our main specifications. Other board controls include percent of parole board members who are female, appointed by a republican governor, or have post-graduate studies as their highest level of education. Standard errors are clustered by rater-year.

*** p<0.01, ** p<0.05, * p<0.1

Table A5: Sensitivity Test - Parole Outcomes

Panel A: Probability of parole					
	(1)	(2)	(3)	(4)	(5)
Comp	0.0460***	0.0456***	0.0391***	0.0392***	0.0390***
	(0.0087)	(0.0088)	(0.0103)	(0.0103)	(0.0103)
Comp x Black		0.0051	0.0044	0.0023	0.0075
		(0.0146)	(0.0147)	(0.0147)	(0.0266)
Mean Dept. Var.	0.728	0.728	0.728	0.728	0.728
R-squared	0.384	0.384	0.384	0.384	0.385
N	89062	89062	89062	89062	89062
Panel B: Probability of having any post-parole condition					
	(1)	(2)	(3)	(4)	(5)
Comp	-0.1342**	-0.1451**	0.0321***	0.0321***	0.0440***
	(0.0556)	(0.0556)	(0.0058)	(0.0058)	(0.0073)
Comp x Black		0.1605**	0.1605**	0.1605**	-0.0548
		(0.0767)	(0.0767)	(0.0767)	(0.1253)
Mean Dept. Var.	0.443	0.443	0.443	0.443	0.443
R-squared	0.105	0.105	0.105	0.105	0.105
N	11691	11691	11691	11691	11691
Panel C: Time Served in Prison (days)					
	(1)	(2)	(3)	(4)	(5)
Comp	-25.3007**	-21.6231**	-44.9542***	-45.0446***	-45.9219***
	(10.4282)	(10.5012)	(15.9742)	(15.9774)	(15.9757)
Comp x Black		-59.5353***	-57.8711***	-56.4761***	-41.9153*
		(12.8299)	(12.8165)	(12.8772)	(22.1107)
Mean Dept. Var.	637.316	637.316	637.316	637.316	637.316
R-squared	0.537	0.537	0.540	0.540	0.540
N	89062	89062	89062	89062	89062
Rater-year FE	X	X	X	X	X
Other Board Controls			X	X	X
Race-Specific Linear Time Trend				X	X
Int. Board Controls with Prisoner Race					X

Notes: The dependent variable is indicated in the header of each panel. The sensitivity analysis is a further restriction of our sample in which we ensure that, for each observation, racial composition of the board at their release date is the same as the composition at the board adjusted temporary parole date. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics, crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level - the same as our main specifications. Other board controls include percent of parole board members who are female, appointed by a republican governor, or have post-graduate studies as their highest level of education. Panel B is further restricted by whether a prisoner ever was on parole and if they were released before their sentence was completed. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

Table A6: Sensitivity Test - Parole conditions

Panel A: Drug Assessment Condition					
	(1)	(2)	(3)	(4)	(5)
Comp	0.1066*	0.1183**	0.1141***	0.1141***	0.1360***
	(0.0563)	(0.0571)	(0.0053)	(0.0053)	(0.0090)
Comp x Black		-0.1725**	-0.1725**	-0.1725**	-0.5414***
		(0.0721)	(0.0721)	(0.0721)	(0.1426)
Mean Dept. Var.	0.272	0.272	0.272	0.272	0.272
R-squared	0.075	0.075	0.075	0.075	0.076
N	11691	11691	11691	11691	11691
Panel B: Alcohol Counseling					
	(1)	(2)	(3)	(4)	(5)
Comp	-0.2971***	-0.3166***	-0.0584***	-0.0584***	-0.0826***
	(0.0486)	(0.0510)	(0.0048)	(0.0048)	(0.0054)
Comp x Black		0.2871***	0.2871***	0.2871***	0.6785***
		(0.0843)	(0.0843)	(0.0843)	(0.1013)
Mean Dept. Var.	0.201	0.201	0.201	0.201	0.201
R-squared	0.153	0.154	0.154	0.154	0.157
N	11691	11691	11691	11691	11691
Rater-year FE	X	X	X	X	X
Other Board Controls			X	X	X
Race-Specific Linear Time Trend				X	X
Int. Board Controls with Prisoner Race					X

Notes: The dependent variable is indicated in the header of each panel. The sensitivity analysis is a further restriction of our sample in which we ensure that, for each observation, racial composition of the board at their release date is the same as the composition at the board adjusted temporary parole date. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics, crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level - the same as our main specifications. Other board controls include percent of parole board members who are female, appointed by a republican governor, or have post-graduate studies as their highest level of education. These results are further restricted to January 1988 to November 1992 due to changes in institutional use of these conditions. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

Table A7: Sensitivity Test - Recidivism Outcomes

Panel A: Probability of recidivism within 3 years of release					
	(1)	(2)	(3)	(4)	(5)
Comp	0.0278***	0.0371***	0.0438***	0.0438***	0.0442***
	(0.0085)	(0.0087)	(0.0089)	(0.0089)	(0.0088)
Comp x Black		-0.1507***	-0.1515***	-0.1503***	-0.1568***
		(0.0154)	(0.0154)	(0.0156)	(0.0215)
Mean Dept. Var.	0.337	0.337	0.337	0.337	0.337
R-squared	0.107	0.108	0.108	0.108	0.108
N	89062	89062	89062	89062	89062
Panel B: Return to prison for parole violation within 3 years					
	(1)	(2)	(3)	(4)	(5)
Comp	0.0228***	0.0274***	0.0258***	0.0260***	0.0264***
	(0.0059)	(0.0060)	(0.0063)	(0.0063)	(0.0062)
Comp x Black		-0.0758***	-0.0763***	-0.0780***	-0.0851***
		(0.0138)	(0.0138)	(0.0140)	(0.0195)
Mean Dept. Var.	0.198	0.198	0.198	0.198	0.198
R-squared	0.108	0.109	0.109	0.109	0.109
N	89062	89062	89062	89062	89062
Rater-year FE	X	X	X	X	X
Other Board Controls			X	X	X
Race-Specific Linear Time Trend				X	X
Int. Board Controls with Prisoner Race					X

Notes: The dependent variable is indicated in the header of each panel. The sensitivity analysis is a further restriction of our sample in which we ensure that, for each observation, racial composition of the board at their release date is the same as the composition at the board adjusted temporary parole date. Comp is percent of the parole board members who are Black, where a mean of 3.8 signifies that the board is 38% Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics, crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level - the same as our main specifications. Other board controls include percent of parole board members who are female, appointed by a republican governor, or have post-graduate studies as their highest level of education. Standard errors are clustered by rater-year.

*** p<0.01, ** p<0.05, * p<0.1

Table A8: Outcomes Test

	Panel A: Violate Parole			
	(1)	(2)	(3)	(4)
	3 Year	3 Year	10 Year	10 Year
Black	0.0075	0.0208	0.0115	0.0268
	(0.0149)	(0.0149)	(0.0164)	(0.0164)
Comp	-0.0092***	0.0193***	-0.0143***	0.0183***
	(0.0026)	(0.0032)	(0.0028)	(0.0035)
Comp x Black	0.0085	-0.0125	0.0120	-0.0120
	(0.0333)	(0.0333)	(0.0363)	(0.0363)
Mean Dept. Var.	0.179	0.179	0.223	0.223
R-squared	0.074	0.078	0.073	0.078
N	51292	51292	51292	51292
	Panel B: Recidivate with a New Conviction			
	(1)	(2)	(3)	(4)
	3 Year	3 Year	10 Year	10 Year
Black	0.0661***	0.0691***	0.1024***	0.1077***
	(0.0145)	(0.0145)	(0.0171)	(0.0171)
Comp	0.0068***	0.0131***	0.0051*	0.0165***
	(0.0025)	(0.0030)	(0.0029)	(0.0036)
Comp x Black	-0.1008***	-0.1055***	-0.1366***	-0.1450***
	(0.0326)	(0.0327)	(0.0379)	(0.0379)
Mean Dept. Var.	0.144	0.144	0.225	0.225
R-squared	0.031	0.031	0.048	0.048
N	51292	51292	51292	51292
Trend		X		X

Notes: All columns include baseline controls. Regressions are restricted to inmates who were paroled and who served more than one-third and less than 100 percent of their sentence. Each column is a separate regression with outcome the measure of recidivism stated in the panel heading measured within the time span specified in the column. Each regression is a modification of Mechoulan and Sahuguet (2015) main specification, with the difference being that interactions of the regressors and our parole composition measure. Trend refers to a linear time trend as a control.
*** p<0.01, ** p<0.05, * p<0.1