The Effect of Parole Board Racial Composition on Prisoner Outcomes

Julia Godfrey* Kegon Teng Kok Tan† Mariyana Zapryanova‡

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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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*Department of Economics, University of Rochester. Contact Email: jgodfre3@ur.rochester.edu.

†Department of Economics, University of Rochester. Contact Email: ttan8@ur.rochester.edu.

‡Department of Economics, Smith College. Contact Email: mzapryanova@smith.edu. We thank Dr. Tim Carr, Researcher at the GDC Office of Planning & Strategic Management, for providing us the administrative prison files, and Steve Hayes, Director of Communications at the Georgia board of Pardons and Paroles, for many useful conversations. We are grateful for feedback from seminar participants at Smith College Brown Bag Seminar Series and the University of Massachusetts at Amherst Five College Seminar on Justice, Law, and Societies as well as conference participants at the 2022 Texas Economics of Crime Workshop (TxECW), Conference on Empirical Legal Studies (CELS), and APPAM Fall Research Conference. We thank Priscilla Liu, My Nguyen, Nick O'Brien, and Emma Ryan for excellent research assistance. The authors have no conflicts of interest to declare and there is no financial interest to report.

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 the 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, such as adjustments to the parole guidelines, and prisoner's outcomes, such as time spent in prison 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] Our empirical strategy leverages on variation in 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

[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] Board member race and gender are the only reliable characteristics that we observe consistently. 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.

deviates more from its guidelines and with greater leniency for Black inmates. A higher proportion of Black parole board members also results in 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 do not appear to have significant effects over and above the impact of the inclusion of at least one Black member. In contrast, for White inmates, the board exerts less discretion and is more likely to adhere to the guidelines recommendations. Taken together, the estimates show the differences in parole decisions appear to be linked to parole member race, and that this is associated with a narrowing of racial disparities in post-parole outcomes.

One important potential mechanism that we uncover is the use of different parole conditions in tandem with more lenient parole decisions for Black inmates. In particular, parole boards with minority members are more likely to impose alcohol counseling and less likely to impose drug assessment conditions post-parole. We argue that consistent with LaForest (2022a) additional alcohol counseling conditions likely might have had beneficial impacts on recidivism rates.[4]

While suggestive, our results support the view that diversity, in the form of minority board membership, can help eliminate outcome disparities (parole violations) that may be driven by sub-optimally harsh parole decisions with regard to how long Black inmates stay in prison relative to Whites. We also find that just the inclusion of a single minority member is sufficient to close the racial gap in outcomes. Although the parole board in Georgia is similar in many dimensions to boards in other states, we add the caveat that our findings could still be somewhat specific to our setting (McConnell et al., 2022). 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

[4]LaForest (2022a) could not identify the association between drug assessments and recidivism due to near multi-colinearity in the Pennsylvania data.

representation among decision makers, especially in settings where there is no representation at all.

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 Blacks 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).[5] Agan (forthcoming)

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

summarizes multiple channels that can lead to these racial disparities. We provide the first 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 (Anwar et al., 2012). 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 in Georgia 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 that take into account prisoner's prior criminal history ("success score") and current crime ("severity level").[6] The parole process is initiated with a pre-parole investigation conducted by a parole hearing examiner (rater). During this pre-parole investigation, the rater collects prisoner's personal information and criminal record and starts preparing the prisoner parole file. In addition, the rater uses the Parole Decisions guidelines to determine prisoner's recommended prison time and temporary parole month (TPM).[7] The temporary parole month (TPM) is a date around which the parole board makes a final decision whether or not to release the inmate. 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, Parole Decisions guidelines recommendations, and a summary discussing the content of the file.

Most inmates are statutorily eligible for parole after serving one-third of their prison sentence, at which time the prisoner's parole file is sent sequentially and in a random order to the parole board members. In accordance with O.C.G.A. §42-9-42, the parole file is passed randomly to members until three of the five members vote the same way.[8] When making

[6]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`.

[7]The rater's role in the parole process is limited. The rater might need to adjust the guidelines TPM for any circumstance not detected by the guidelines. These adjustments are not at the discretion of the rater rather they are stipulated by the Georgia criminal law.

[8]The board does not meet as a group to review the parole files or interviews the prisoner. Rather, each board member receives the files at random and votes independently based on the content of the file. Note that the members observe all prior votes on the file.

a decision, each member can set a temporary parole month (TPM), set a reconsideration date, or set neither. When setting a TPM, the board members have full discretion to either agree with, decrease, or increase the TPM recommended by the Parole Decisions guidelines. 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. The board members could also impose special parole conditions, such as drug or alcohol treatment, mental health counseling, or compliance with electronic monitoring procedures.[9] If the board sets a reconsideration date, the board is denying parole for the present, but agrees to review the file again in the future and possibly set a TPM then.[10] When the board does not set a reconsideration date or a TPM, the board is denying parole for the rest of the person'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. These data come from historical biographies of the parole board members (including a color headshot) and annual reports of the Georgia board of Pardons and Paroles.[11] 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

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

[10]Note that in the data we observe the last established TPM by the board. Thus, we are unable to identify parole cases that appear multiple times in front of the board and cannot speak to how the reconsideration process is carried out.

[11]Over the sample period there are 23 unique parole board members members of which 6 are Black.

1.[12] Only once during the sample period (late 1980s) the Georgia Parole board has no Black members. Otherwise, we observe that there has always been at least one Black member and that the percent of Black parole members reaches its highest (60%) in the early 2000s.[13] 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 Parole Decisions guidelines.[14] We further restrict our sample to male prisoners that are eligible for parole.

We present summary statistics of our outcomes and parole board composition variable in Table 1. In our estimation sample, the average prisoner faces a parole board that has about 37% Black members.[15] The vast majority of prisoners are release on parole (73.5%), and about 33% return back to prison within 3 years of release. On average, the parole board agrees with the guidelines-recommended TPM 57% of the time and increases it 32% 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, almost 60.5% 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

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

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

[14] 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 is a problem given that the parole board composition does not change frequently.

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

receive a 4.3 year sentence. The majority of prisoners are incarcerated because of a property crime.

4 Empirical Strategy

We estimate the following regression equation:

$$Y_{it} = \alpha_0 + \alpha_1 comp_{it} + \alpha_2 comp_{it} \times Black_i + \alpha_3 BoardCharact_{it} + \alpha_4 X_i + \pi_{it} + \varepsilon_{it} \quad (1)$$

where Y_{it} refers to prisoner outcome of interest, such as whether the board agrees with the guidelines recommended TPM or whether it grants parole, for prisoner i rated in month t.[16] $Comp_{it}$ 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 guidelines.[17] 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 characteristics of the board, such as average tenure of the parole board members, percent of board members who are female and who are appointed by a Republican Governor. By including these variables we aim to control for other changes in parole board that could be correlated with changes in its racial composition.[18] 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-

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

[17] From conversation with the Georgia parole board administrators, we were told that the board starts reviewing files soon after the rating is complete. This eases some of our concerns that our results could be subject to measurement error if the parole reviews the files not close to the rate date.

[18] Preferably, we would like to control for various characteristics of the parole board members, such as their political affiliation. Alas, we do not observe such characteristics besides gender and race in the data.

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 prisoner characteristics listed in Table A1, such as race, gender, and criminal offense, and success score and crime severity level controls. π 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 secular trends in parole outcomes over the sample period. We cluster the error terms ε_{it} by rater-year.

The parameter α_1 captures the effect of increase in the percent of Black members on the parole board on prisoner outcomes using within-rater-by-year variation. The parameter α_2 captures the differential effect of racial diversity on prisoner outcomes for prisoners who are Black. The identifying variation here comes from the appointment (stepping down) of a black parole board member to a seat previously held by a white parole board member. We perform a series of balance tests to probe the assumption that, within each year, the change in board composition is not correlated with changes in prisoner characteristics. In these balance tests, we regress each prisoner characteristics on parole board composition. We report the results in Table A2 and find, for the most part, insignificant estimates, indicating that board composition is not changing at the same time as other characteristics of the prisoners might be changing.[19] Although we are unable to use 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 want to 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.

[19]We want to note that some coefficients are statistically significant in the balance test, perhaps because of the number of regressions we run, but all of them are very small in magnitude.

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 largely robust to the fixed effects included (Columns (3) and (4)). We consider the regression in Column (2) to be our preferred specification and focus on those estimates for interpretation. It strikes a balance between controls for time trends without relying only on within-year variation given the few racial changes in the parole composition we have in the data. However, we note that our results are qualitatively similar across the specifications. We also find that it is important to interact board composition with prisoner race.

First, we estimate the effect of the racial composition of the parole board on how the board engages with the guidelines and whether it deviates from the guidelines recommendation in a significant way. We present our results in Table 2. Our estimates in Panel A show that the impact of more minority board members on agreeing with recommendation of the guidelines is positive and statistically significant for most specifications (a 3.5 p.p. increase in the probability of agreeing with recommendations for a 10 p.p. increase minority membership). That is to say, the board exercises less discretion in deviating from guidelines.

To unpack this 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 2.4 p.p. less likely to increase the guidelines recommended TPM and also about 1 p.p. less likely to be more lenient than the guidelines. However for Black inmates, an increase in minority board membership leads to a roughly 5.6 p.p. reduction in the probability of choosing a harsher parole outcome than the guidelines, and a 5.2 p.p. increase in the probability of choosing a more lenient outcome than the guidelines. Indeed, Panel D underlines this, showing that for White inmates there is a 70 day decrease in the TPM decided by the Board compared

to the TPM stipulated by the guidelines.[20]

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 . The additional minority board member may inform and move the priors that other board members hold with regard to Black inmates, on top of the direct effect their vote on the parole decisions may have. This is consistent with findings from other areas of the criminal justice system, for example, Harris (2023) finds that the addition of a Black colleague on the judicial bench results in shrinking the Black-White incarceration gap.

Table 3 reports the effect of an increase in minority membership on overall parole outcomes. We find small and insignificant impact overall on 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 for Black inmates, indicating an intensive margin effect for Black inmates although the extensive margin did not change. Paenl B documents that the probability of having post-parole conditions increases for Black inmates as Black membership of the board increased.

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.[21] In Table 4, 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. We observe that when the board has more minority board members, Black inmates are more likely to receive alcohol counseling conditions (11 p.p.) but less likely to receive drug assessment conditions (-7 p.p.) relative to White inmates.

These changes in parole decision-making process in response to changes in the racial

[20]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.

[21]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.

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 5 Panel B that a 10% increase in Black membership on the parole board is associated with an approximately 6 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 5 Panel A). This suggests that the more lenient parole decisions may also have been beneficial 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 4. 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 5 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 inmate's race. In our setting, the guidelines success score uses a comprehensive set of inmate'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 White inmates 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.[22]

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 efficacious parole conditions that are the more relevant mechanisms for explaining lower recidivism rates among Black inmates.

[22]We also apply the framework from Mechoulan and Sahuguet (2015) in regression form and find that the estimates are consistent with Figure A2 (see Appendix Table A3).

5.3 Heterogeneity

Finally, we show results on heterogeneity both by inmate characteristics as well as board characteristics. We explore heterogeneity in the effect of increasing Black members on the parole board by inmate's success score in Table 6. We estimate a triple difference model where the third difference is an indicator whether the inmate was classified as having a bad success score (lower chance of violating parole and engaging in crime). We find that our main effects do not seem to vary with success scores.[23]

In case of masking across different characteristics of inmates that contribute to success scores, we further examine heterogeneous effects by whether the inmate 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 7. We find that our main effects do not seem to be heterogeneous across major predictors of recidivism risk, with only older Black inmates showing consistently larger effects than other Black inmates but the magnitudes are small.

We also explore whether Black inmates are more affected by the diversity of the parole board if the board gains its first black member versus its third black member, which will secure board majority. We present these results in Figure 3. Since parole decisions are reached by majority, it could be that Black inmates are most affected when three of the five board members are Black. Overall, we do not find evidence that this is the case. The only outcome for which the effect of having three Black parole members versus less than three on Black inmates is for number of days the board deviates from the guidelines TPM (Figure 3 Panel F).

[23]The guidelines classifies inmates according to their success score in three groups–bad, medium, and high–depending on how likely they are to succeed on parole.

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).

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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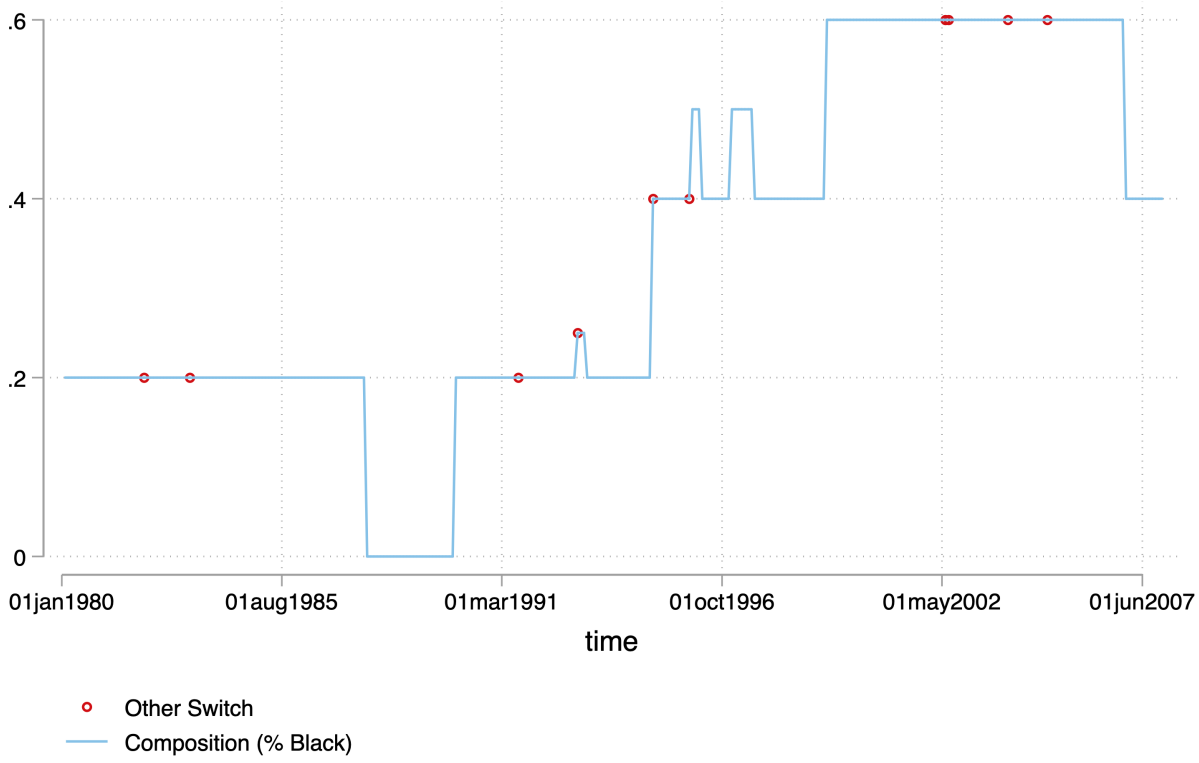
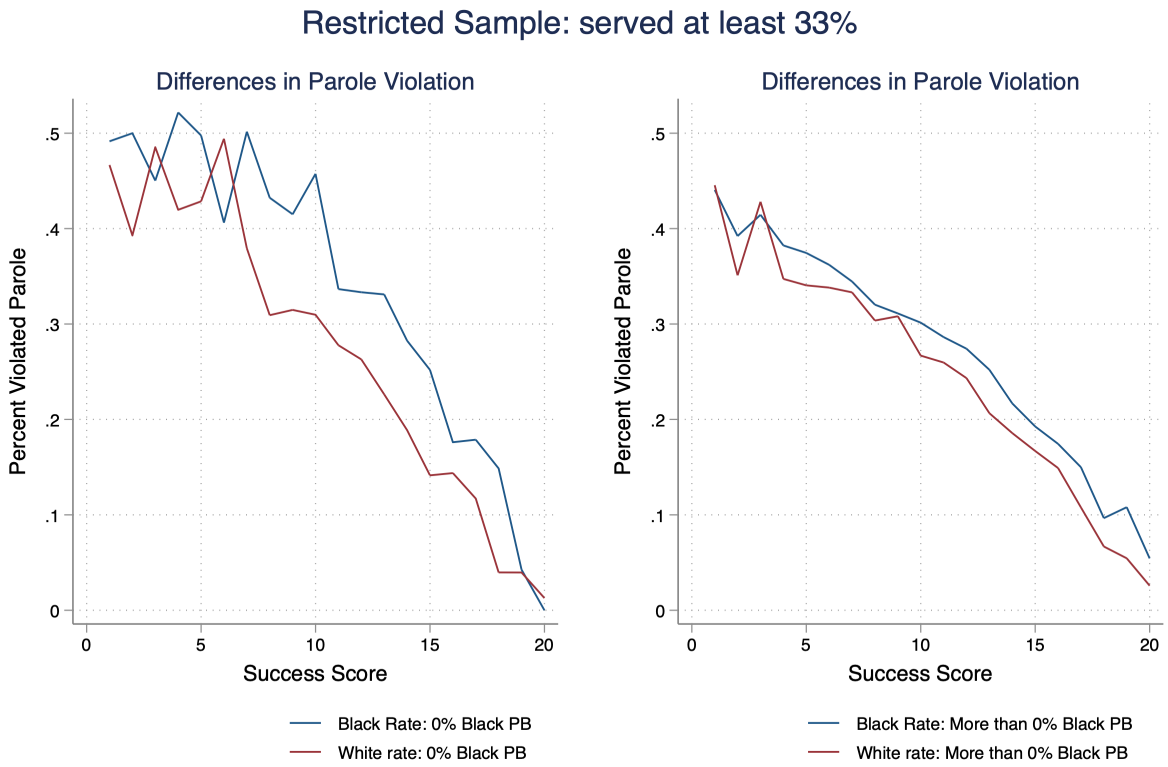
7 Tables and Figures

Figure 1: parole board racial composition over time



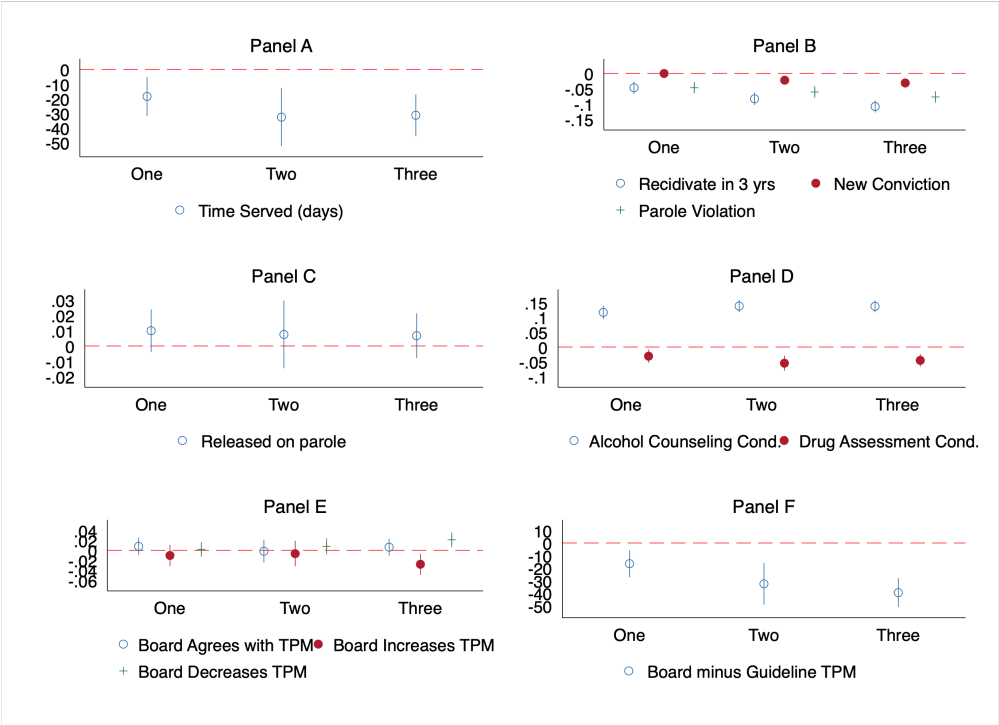
Note: This figure plots changes in the parole board over our sample period. Solid lines indicate changes in the percent of parole board members who are Black while dots are representative of any other type of board transition.

Figure 2: Probability of returning to prison with a parole/probation violation vs guidelines success score



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.

Figure 3: Prisoner outcomes by number of parole board members that are Black



Note: The y-axis plots the coefficients of the indicators for the number of Black board members on the board, indicated on the x-axis, interacted with whether the inmate 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)	3.676	1.965
Board Agrees with Recomm.	0.573	0.495
Board Increases Recomm.	0.323	0.467
Board Decreases Recomm.	0.104	0.305
Board minus Guidelines TPM	56.330	373.065
Released on parole	0.735	0.441
Any post-parole condition	0.382	0.486
Time Served	652.599	482.844
Drug Assessment Cond.	0.336	0.472
Alcohol Counseling Cond.	0.031	0.173
Recidivate in (3 yrs)	0.328	0.470
Recid. with New Conviction (3 yrs)	0.134	0.340
Violated Parole (3 Yrs)	0.194	0.396
N	134388	

Notes: The table shows summary statistics of our main variable of interest (comp) that measures the proportion of Black parole board members serving on the board as well as all the outcomes of interest. A 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 the Parole Guidelines 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 guidelines recommendation				
	(1)	(2)	(3)	(4)
Comp	0.0349***	0.0347***	0.0366***	0.0385***
	(0.0072)	(0.0074)	(0.0094)	(0.0093)
Comp x Black		0.0040	-0.0005	-0.0005
		(0.0161)	(0.0142)	(0.0142)
Mean Dept. Var.	0.573	0.573	0.573	0.573
R-squared	0.137	0.137	0.193	0.193
N	134388	134388	134388	134388

Panel B: board increases the guidelines recommendation				
	(1)	(2)	(3)	(4)
Comp	-0.0280***	-0.0243***	-0.0201**	-0.0186**
	(0.0074)	(0.0076)	(0.0085)	(0.0087)
Comp x Black		-0.0558***	-0.0426***	-0.0426***
		(0.0168)	(0.0153)	(0.0153)
Mean Dept. Var.	0.323	0.323	0.323	0.323
R-squared	0.155	0.155	0.205	0.205
N	134388	134388	134388	134388

Panel C: board decreases the guidelines recommendation				
	(1)	(2)	(3)	(4)
Comp	-0.0069	-0.0102**	-0.0166**	-0.0198***
	(0.0042)	(0.0042)	(0.0080)	(0.0076)
Comp x Black		0.0516***	0.0429***	0.0428***
		(0.0102)	(0.0093)	(0.0093)
Mean Dept. Var.	0.104	0.104	0.104	0.104
R-squared	0.049	0.049	0.118	0.118
N	134388	134388	134388	134388

Panel D: Difference between board and guidelines recommended TPM				
	(1)	(2)	(3)	(4)
Comp	2.7755	7.3623	12.5504**	14.1270**
	(4.5731)	(4.7616)	(5.8723)	(5.9839)
Comp x Black		-70.3742***	-62.1686***	-62.1412***
		(11.2227)	(10.1250)	(10.1221)
Mean Dept. Var.	56.330	56.330	56.330	56.330
R-squared	0.301	0.301	0.351	0.351
N	134388	134388	134388	134388

Linear time trend	X	X		
Rater-year FE			X	X
Other Board Controls				X

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics (IQ, indicators for having children or being married, social class), 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 or appointed by a republican governor. 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)
Comp	-0.0044	-0.0049	-0.0037	-0.0026
	(0.0063)	(0.0065)	(0.0066)	(0.0070)
Comp x Black		0.0088	-0.0016	-0.0016
		(0.0147)	(0.0129)	(0.0129)
Mean Dept. Var.	0.735	0.735	0.735	0.735
R-squared	0.316	0.316	0.360	0.360
N	134388	134388	134388	134388
Panel B: Probability of having any post-parole condition				
	(1)	(2)	(3)	(4)
Comp	-0.0526***	-0.0555***	-0.0025	0.0023
	(0.0066)	(0.0068)	(0.0099)	(0.0098)
Comp x Black		0.0438**	0.0684***	0.0685***
		(0.0211)	(0.0202)	(0.0202)
Mean Dept. Var.	0.382	0.382	0.382	0.382
R-squared	0.271	0.271	0.320	0.320
N	134388	134388	134388	134388
Panel C: Time Served in Prison (days)				
	(1)	(2)	(3)	(4)
Comp	15.3067**	18.8391**	7.0022	3.9567
	(7.2462)	(7.4940)	(7.6334)	(7.9703)
Comp x Black		-54.1970***	-41.8197***	-41.8728***
		(14.5273)	(12.2696)	(12.2657)
Mean Dept. Var.	652.599	652.599	652.599	652.599
R-squared	0.466	0.466	0.521	0.521
N	134388	134388	134388	134388
Linear time trend	X	X		
Rater-year FE			X	X
Other Board Controls				X

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics (IQ, indicators for having children or being married, social class), crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level. Standard errors are clustered by rater-year. Panel D is further restricted by whether a prisoner ever was on parole and if they were released before their sentence was completed. Other board controls include percent of parole board members who are female or appointed by a republican governor. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Parole conditions

Panel A: Drug Assessment Condition				
	(1)	(2)	(3)	(4)
Comp	-0.0246***	-0.0199***	0.0081	0.0127
	(0.0060)	(0.0061)	(0.0089)	(0.0090)
Comp x Black		-0.0726***	-0.0536***	-0.0535***
		(0.0156)	(0.0154)	(0.0154)
Mean Dept. Var.	0.336	0.336	0.336	0.336
R-squared	0.284	0.284	0.322	0.322
N	134388	134388	134388	134388
Panel B: Alcohol Counseling				
	(1)	(2)	(3)	(4)
Comp	-0.0369***	-0.0438***	-0.0106***	-0.0101***
	(0.0042)	(0.0047)	(0.0018)	(0.0018)
Comp x Black		0.1061***	0.1179***	0.1179***
		(0.0164)	(0.0159)	(0.0159)
Mean Dept. Var.	0.031	0.031	0.031	0.031
R-squared	0.069	0.073	0.218	0.218
N	134388	134388	134388	134388
Linear time trend	X	X		
Rater-year FE			X	X
Other Board Controls				X

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

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

Table 5: Recidivism Outcomes

Panel A: Probability of recidivism within 3 years of release				
	(1)	(2)	(3)	(4)
Comp	0.0168***	0.0271***	0.0159***	0.0169***
	(0.0023)	(0.0024)	(0.0046)	(0.0049)
Comp x Black		-0.1579***	-0.1611***	-0.1610***
		(0.0120)	(0.0121)	(0.0121)
Mean Dept. Var.	0.328	0.328	0.328	0.328
R-squared	0.100	0.101	0.108	0.108
N	134388	134388	134388	134388

Panel B: Return to prison for parole violation within 3 years				
	(1)	(2)	(3)	(4)
Comp	0.0128***	0.0167***	0.0056	0.0056
	(0.0021)	(0.0022)	(0.0049)	(0.0051)
Comp x Black		-0.0605***	-0.0639***	-0.0639***
		(0.0140)	(0.0143)	(0.0143)
Mean Dept. Var.	0.173	0.173	0.173	0.173
R-squared	0.067	0.067	0.076	0.076
N	71206	71206	71206	71206

Linear time trend	X	X		
Rater-year FE			X	X
Gender Comp Control				X

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics (IQ, indicators for having children or being married, social class), crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level. Standard errors are clustered by rater-year. Panel B is further restricted by those paroled and those who served more than one-third and less than 100 percent of their sentence.
*** p<0.01, ** p<0.05, * p<0.1

Table 6: Parole Decision-Making

Panel A: board agrees with the guidelines recommendation			
	(1)	(2)	(3)
Comp x Black	0.0044	-0.0037	-0.0036
	(0.0171)	(0.0154)	(0.0154)
Bad Success x Black x Comp	-0.0047***	-0.0040***	-0.0041***
	(0.0014)	(0.0013)	(0.0013)
Mean Dept. Var.	0.573	0.573	0.573
R-squared	0.138	0.194	0.194
N	134388	134388	134388

Panel B: board increases the guidelines recommendation			
	(1)	(2)	(3)
Comp x Black	-0.0454**	-0.0322*	-0.0321*
	(0.0179)	(0.0165)	(0.0165)
Bad Success x Black x Comp	0.0024*	0.0021	0.0021
	(0.0013)	(0.0013)	(0.0013)
Mean Dept. Var.	0.323	0.323	0.323
R-squared	0.156	0.207	0.207
N	134388	134388	134388

Panel C: board decreases the guidelines recommendation			
	(1)	(2)	(3)
Comp x Black	0.0409***	0.0356***	0.0355***
	(0.0098)	(0.0093)	(0.0093)
Bad Success x Black x Comp	0.0023**	0.0020**	0.0020**
	(0.0010)	(0.0009)	(0.0009)
Mean Dept. Var.	0.104	0.104	0.104
R-squared	0.049	0.118	0.118
N	134388	134388	134388

Panel D: Difference between board and guidelines recommended TPM			
	(1)	(2)	(3)
Comp x Black	-64.9109***	-56.3276***	-56.2699***
	(12.1269)	(11.0720)	(11.0679)
Bad Success x Black x Comp	1.4202	0.9814	0.9635
	(0.9071)	(0.8771)	(0.8773)
Mean Dept. Var.	56.330	56.330	56.330
R-squared	0.302	0.351	0.351
N	134388	134388	134388

Linear time trend	X		
Rater-year FE		X	X
Other Board Controls			X

Notes: The dependent variable is indicated in the header of each panel. Comp is percent of the parole board members who are Black. In all regressions we control for the average tenure of the parole board as well as prisoner demographic characteristics (IQ, indicators for having children or being married, social class), 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 or appointed by a republican governor. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

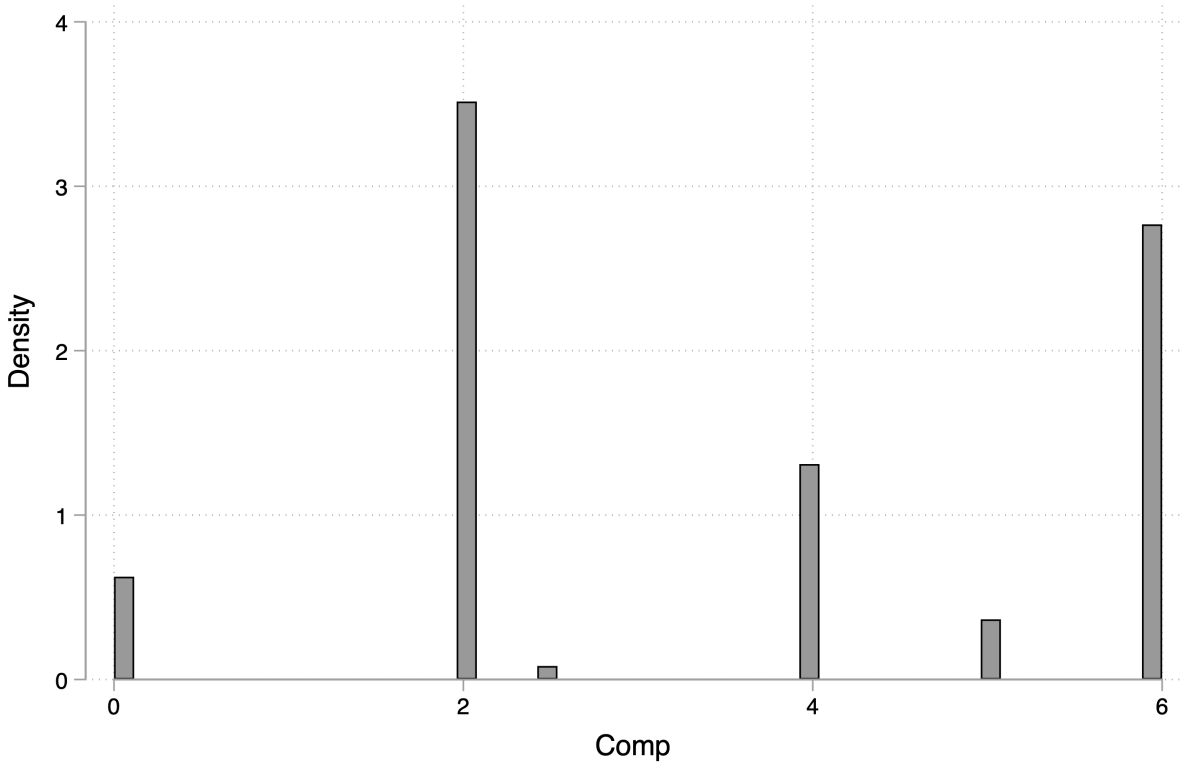
Table 7: Additional Heterogeneity Analysis

	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	-27.6617**	-0.1539***	-0.0644***	-0.0894***
	(11.2288)	(0.0132)	(0.0101)	(0.0125)
No Prior Convs. × Black × Comp	-2.4430**	-0.0019*	-0.0010	-0.0009
	(1.1127)	(0.0011)	(0.0009)	(0.0010)
Mean Dept. Var.	652.599	0.328	0.134	0.194
R-squared	0.522	0.108	0.038	0.112
N	134388	134388	134388	134388
	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	-20.7456*	-0.1551***	-0.0620***	-0.0931***
	(11.1797)	(0.0130)	(0.0101)	(0.0123)
High Severity Level (5-7) × Black × Comp	-9.3283***	-0.0022	-0.0018	-0.0004
	(1.5497)	(0.0013)	(0.0011)	(0.0010)
Mean Dept. Var.	652.599	0.328	0.134	0.194
R-squared	0.523	0.108	0.038	0.113
N	134388	134388	134388	134388
	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	-19.6776	-0.1237***	-0.0572***	-0.0665***
	(14.3215)	(0.0155)	(0.0118)	(0.0139)
Over 25 × Black × Comp	-3.3283***	-0.0049***	-0.0016*	-0.0033***
	(1.0906)	(0.0014)	(0.0009)	(0.0011)
Mean Dept. Var.	652.599	0.328	0.134	0.194
R-squared	0.521	0.108	0.038	0.113
N	134388	134388	134388	134388

Notes: The dependent variable is indicated in the header of each column. The interaction of interest is indicated in the header of each panel. Comp is percent of the parole board members who are Black.In all regressions we control for the average tenure of the parole board and other board controls (percent of parole board members who are female or appointed by a republican governor) as well as prisoner demographic characteristics (IQ, indicators for having children or being married, social class), crime incidence characteristics, sentence length, previous convictions, guidelines parole success score, and crime severity level. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

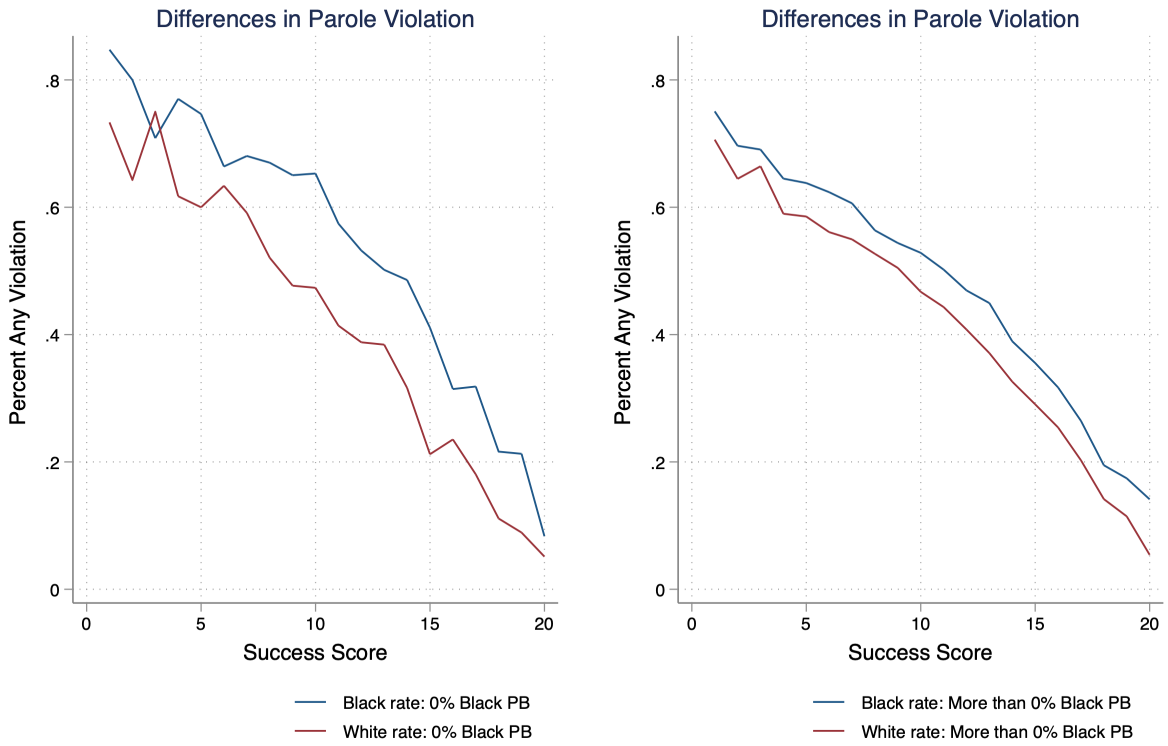
A Appendix

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



Note: The y-axis plots the probability of returning to prison. The return to prison can be because of a new conviction or because of 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	0.605	0.489
Sentence Length (days)	1474.311	734.781
Less than HS	0.663	0.473
HS Diploma	0.239	0.427
Some College	0.084	0.277
Graduate School	0.013	0.113
Other Education	0.001	0.024
IQ: less than 60	0.007	0.081
IQ: First Quantile	0.235	0.424
IQ: Second Quantile	0.233	0.423
IQ: Third Quantile	0.276	0.447
IQ: Fourth Quantile	0.250	0.433
Has Kids	0.629	0.483
Married	0.153	0.360
Age at Sentencing	30.370	9.259
Welfare	0.075	0.264
Occassioinaly Employed	0.049	0.215
Minimum Standard	0.405	0.491
Middle Class	0.441	0.497
Other Social Class	0.030	0.171
Zero Prior Convictions	0.342	0.474
1 Prior Conviction	0.160	0.367
2-3 Prior Convictions	0.207	0.405
4-7 Prior Convictions	0.187	0.390
8+ Prior Convictions	0.103	0.304
Violent Crimes	0.216	0.412
Drug Related Crimes	0.267	0.442
Property Related Crimes	0.393	0.488
Other Crimes	0.124	0.330
N	134388	

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

	(1) Less than HS	(2) HS Diploma	(3) Some College	(4) Graduate School	(5) Other Education
Comp	-0.0004	-0.0010	0.0006	0.0007	0.0002
	(0.0047)	(0.0036)	(0.0024)	(0.0014)	(0.0002)
Mean Dept. Var.	0.663	0.239	0.084	0.013	0.001

	(1) Zero Prior Convictions	(2) 1 Prior Conviction	(3) 2-3 Prior Convictions	(4) 4-7 Prior Convictions	(5) 8+ Prior Convictions
Comp	-0.0184***	-0.0053*	0.0075**	0.0122***	0.0040
	(0.0061)	(0.0032)	(0.0038)	(0.0036)	(0.0033)
Mean Dept. Var.	0.342	0.160	0.207	0.187	0.103

	(1) IQ: less than 60	(2) IQ: First Quantile	(3) IQ: Second Quantile	(4) IQ: Third Quantile	(5) IQ: Fourth Quantile
Comp	-0.0013	-0.0025	0.0051	0.0004	-0.0017
	(0.0009)	(0.0041)	(0.0039)	(0.0030)	(0.0049)
Mean Dept. Var.	0.007	0.235	0.233	0.276	0.250

	(1) Welfare	(2) Occassioinaly Employed	(3) Minimum Standard	(4) Middle Class	(5) Other Social Class
Comp	-0.0025	0.0012	-0.0005	-0.0008	0.0025
	(0.0017)	(0.0029)	(0.0047)	(0.0052)	(0.0018)
Mean Dept. Var.	0.075	0.049	0.405	0.441	0.030

	(1) Black	(2) Sentence Length (days)	(3) Has Kids	(4) Married	(5) Age at Sentencing
Comp	-0.0061	-38.6095***	-0.0024	0.0052*	0.0737
	(0.0048)	(14.2097)	(0.0034)	(0.0030)	(0.1118)
Mean Dept. Var.	0.605	1474.311	0.629	0.153	30.370

	(1) Violent Crimes	(2) Drug Related Crimes	(3) Property Related Crimes	(4) Other Crimes
Comp	-0.0126**	0.0099*	0.0069	-0.0042
	(0.0059)	(0.0057)	(0.0065)	(0.0042)
Mean Dept. Var.	0.216	0.267	0.393	0.124

Notes: The dependent variable is indicated in the header of each column. All covariates are presented in two panels. Regressions include rate-by-year FEs. Standard errors are clustered by rater-year.
*** p<0.01, ** p<0.05, * p<0.1

Table A3: Outcomes Test

Panel A: Violate Parole				
	(1)	(2)	(3)	(4)
	3 Year	3 Year	10 Year	10 Year
Black	0.0226*	0.0370***	0.0291**	0.0461***
	(0.0118)	(0.0118)	(0.0132)	(0.0132)
Comp	-0.0099***	0.0214***	-0.0139***	0.0233***
	(0.0021)	(0.0025)	(0.0023)	(0.0028)
Comp x Black	-0.0152	-0.0384	-0.0165	-0.0440
	(0.0271)	(0.0270)	(0.0300)	(0.0299)
Mean Dept. Var.	0.173	0.173	0.220	0.220
R-squared	0.072	0.078	0.071	0.079
N	71206	71206	71206	71206
Panel B: Recidivate with a New Conviction				
	(1)	(2)	(3)	(4)
	3 Year	3 Year	10 Year	10 Year
Black	0.0675***	0.0706***	0.0968***	0.1037***
	(0.0116)	(0.0116)	(0.0139)	(0.0139)
Comp	0.0058***	0.0125***	0.0026	0.0177***
	(0.0020)	(0.0024)	(0.0024)	(0.0028)
Comp x Black	-0.1053***	-0.1103***	-0.1356***	-0.1468***
	(0.0268)	(0.0268)	(0.0316)	(0.0315)
Mean Dept. Var.	0.137	0.137	0.220	0.220
R-squared	0.030	0.030	0.046	0.047
N	71206	71206	71206	71206
Trend		X		X

Notes: All columns include baseline controls. Regressions are restricted to inmates 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.
*** p<0.01, ** p<0.05, * p<0.1