Judicial Politics and Disparities in Sentencing*

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November 11, 2016

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Abstract

Racial and gender disparities are prevalent in the criminal justice system. In this paper, we explore a potential source of these disparities: judge political affiliation. Using rich data on approximately half a million federal defendants sentenced between 1999 and 2015 linked to sentencing judge, we find that Republican appointed judges sentence black defendants to longer prison terms than similar whites compared to Democratic appointed judges, approximately half of the racial sentence gap. Republican judges also sentence female defendants to fewer months than similar male defendants compared to Democratic judges, roughly one-third the gender sentence gap. Differences in racial disparities by political affiliation increase when judges are granted more discretion, suggesting that they reflect judge preferences. We also find that the sentencing patterns of judges of both political parties change when a court is comprised of more Republican judges, indicating the presence of peer effects.

*We thank Sue Long and TRAC for their assistance in compiling and accessing data. Michael Zhang provided excellent research assistance. All errors are our own.

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Introduction

In the United States, racial and gender disparities are prevalent in the criminal justice system. Black defendants are six times more likely to be incarcerated than whites. As a result, while less than ten percent of the overall population, black defendants comprise almost forty percent of the prison population (Carson and Sabol 2012). In particular, black defendants receive substantially longer prison sentences than otherwise similar white offenders (United States Sentencing Commission 2012, Fischman and Schanzenbach 2012), with substantial across-judge variation in the racial sentencing gap (Abrams et al. 2012). Similarly, male defendants are sentenced to substantially longer in prison than female defendants even after accounting for arrest offense and criminal history (Mustard 2001, Starr 2015). These large disparities raise concerns about unequal treatment within the criminal justice system. As a result, understanding the sources of these disparities is an important policy question.

In this paper, we explore one potential explanation for these racial and gender disparities at the sentencing stage of the criminal justice process: judicial politics. The question of whether judges are political has fueled an extensive literature documenting the impact of judge political affiliation on case outcomes in trial and appellate courts. In a variety of contexts, judges appointed by Republican presidents reach different outcomes compared to judges appointed by Democratic presidents (see Sunstein et al. 2006). In the context of criminal sentencing, political affiliation has been shown to affect sentencing outcomes, with Republican appointed judges giving longer sentences for the same crime compared to their Democratic appointed counterparts (Schanzenbach and Tiller 2007, 2008).

However, relatively unexplored is whether political ideology is a source of the persistent and large racial and gender disparities in federal criminal sentencing. The answer to this question of growing importance because the federal prison system is the largest and fastest-growing prison system in the United States. Between 1980 and 2015, the total number of inmates in the federal system increased from approximately 25,000 to over 205,000 (Congressional Research Service 2013). In addition, judicial politics has taken a prominent role in the functioning of the legal system given the increasing politicization of the federal judiciary where judges are appointed for lifetime terms. Indeed, many scholars have suggested that politics and ideology play a much larger role in the nomination process today than they did several decades ago (Wittes 2009).

Estimating the impact of judge political affiliation on sentencing decisions has been complicated by the lack of data linking judge identifiers to defendant characteristics and case outcomes. For example, previous researchers have primarily relied on court-level variation in the percent of Democratic or Republican judges to study the impact of political affiliation

on sentencing (see e.g. Schanzenbach and Tiller 2007). Using court-level variation, one prior paper finds that racial disparities do not vary when a court is comprised of more Democratic appointed judges (Schanzenbach 2015). However, relying on aggregate court-level variation can lead to biased estimates if courts with different compositions differ in ways that affect all judges in the district court.

To address whether judge political affiliation affects disparities in sentencing, we build a new dataset linking federal sentencing data with judge information for approximately half a million defendants sentenced between 1999 and 2015 to explore whether Republican appointed and Democratic appointed judges differ in their sentencing of offenders.[1] In particular, we analyze whether judicial political affiliation can explain the large racial and gender disparities in sentencing. Intuitively, we compare how Republican judges sentence black versus white offenders, or female versus male offenders, relative to Democratic judges in the same court.

The key assumption of our empirical design is that any differences in characteristics of cases assigned to Republican versus Democratic judges is not unbalanced by defendant observables such as race or gender. For example, we rely on the assumption that while Republican and Democratic judges may be assigned different types of cases, these differences by political affiliation are similar for black versus white defendants. This assumption allows us to infer that any differences in disparities by political affiliation reflect judge ideology rather than differences in observed and unobserved case characteristics. We find that this assumption is likely valid in our setting. We document that there is no differential case selection to Republican versus Democratic judges by defendant race or gender. As a result, any systematic differences in the sentencing outcomes of black versus white offenders, or female versus male offenders, by judge political affiliation can be attributed to ideology rather than differences in case and defendant characteristics.

We find that Republican judges give substantially longer prison sentences to black offenders versus observably similar white offenders compared to Democratic judges within the same district court. The racial gap by political affiliation is 1.4 months, approximately 50 percent of the average racial sentence gap. We also find that Republican judges give female defendants 1.6 months less in prison than similar male defendants compared to Democratic judges, 30 percent of the average gender sentence gap. These racial and gender gaps by judge political affiliation cannot be explained by other observable judge characteristics such as judge race or judge gender and persist even after controlling for a full set of judge fixed effects.

[1]For simplicity, we refer to Republican appointed judges as "Republican judges" and Democratic appointed judges as "Democratic judges" throughout.

Next, we explore the potential mechanisms that drive these differential disparities by judge political affiliation. In particular, we analyze three common phenomenon that may affect sentencing behavior: (1) judicial discretion, (2) judicial tenure, and (3) peer effects. First, we analyze whether differences in disparities by political affiliation are driven by individual judge preferences. Specifically, we test whether sentencing differences by political affiliation expand when judges are granted more discretion, and thus when they are more free to exhibit their preferences. We exploit plausibly exogenous variation in the timing of the Supreme Court's decision in *United States v. Booker* and its subsequent cases, which greatly increased judicial discretion and reduced the degree of appellate scrutiny. We find that after *Booker*, the racial gap in sentence length increased generally, but particularly among cases assigned to Republican judges. After *Booker*, Republican judges sentence blacks to 1.4 months longer compared to similar white defendants, relative to their Democratic appointed colleagues, further increasing racial gaps by political affiliation.

Second, we examine whether judicial experience alters racial and gender disparities by political affiliation given evidence that judges change their behavior the longer they serve (Eisenberg and Johnson 1991, Epstein et al. 1998). We find that the difference in disparities by political affiliation are largest in the earlier stages of a judge's career, and become much smaller and statistically insignificant with judge tenure. These results suggest that over time, judges converge in their sentencing patterns potentially due to learning and acculturation. However, we also find that convergence occurs much more slowly among cases decided after *Booker*, suggesting that experience and expanded judicial discretion have opposing effects on racial and gender disparities by judge political affiliation.

Finally, we explore the presence of peer effects in the context of federal sentencing, that is, the impact of a judge's environment on his or her own behavior. While "panel effects" have been studied in the context of appellate decision-making (Sunstein et al. 2006, Cross 2007, Miles 2012, Kastellec 2016), where judges make decisions with others in groups, relatively little to no work has explored the potential for peer groups to impact sentencing decisions, which are determined by the individual decisions of federal district court judges. Nevertheless, district court judges often work in close proximity and interact with their colleagues, suggesting that the sentencing behavior of other judges may affect one's own sentencing. In fact, some judges explicitly consider their own sentences in reference to the court's average sentence, suggesting that peer effects may matter.

To analyze whether peer effects impact sentencing, we exploit variation in the composition of each district court over time. Changes in the composition of courts are driven largely by judicial retirements, and thus provide a plausibly exogenous source of variation in a judge's peer group. We find strong evidence of peer effects on sentencing decisions of individual

judges. In particular, all judges in a court are affected by compositional changes regardless of their political affiliation. When Republican judges comprise a larger share of the court, both Democratic and Republican judges issue longer sentences to black offenders relative to whites and shorter sentences to female offenders relative to males.

Overall, these results suggest that judicial politics may be a source of the persistent racial and gender disparities in the federal criminal justice system. Our results also indicate that these disparities become larger with increased discretion and that peer groups influence the sentencing behavior of individual judges. These results indicate that the appointment of federal judges through the political process has large implications for disparities in the criminal justice system. Our estimates suggest that a ten percent increase in the share of Republicans in each court would increase the racial sentencing gap by approximately 20 percent. Alternatively, during an average four-year term, a Republican president has the potential to alter the partisan composition of the district courts by approximately 13 percent, potentially increasing the racial sentencing gap by 26 percent.

Our paper contributes to two broad literatures. First, our paper is related to a large literature documenting the effects of judge characteristics on decision-making (Sunstein et al. 2006, Epstein et al. 2013) at both the appellate level (e.g., Cox and Miles 2008, Chew and Kelley 2008) and trial court levels (e.g., Schanzenbach and Tiller 2007, Fischman and Schanzenbach 2012, Yang 2014, Lim et al. 2016). In particular, scholars have focused in large part on the political affiliation of the appointing president, which reflects the policy preferences of judges (Cross and Tiller 1998, George 2001), with judges appointed by Republican presidents tending to be more conservative than judges appointed by Democratic presidents (Brudney, Schiavoni, and Merritt 1999, Gottschall 1986). In a related literature, scholars have studied the impact of judge race, gender, tenure, and family background on case outcomes (see, e.g. Gruhl, Spohn, and Welch 1981, Eisenberg and Johnson 1991, Ashenfelter, Eisenberg, and Schwab 1995, Glynn and Sen 2015).

Our paper is also related to a broad literature documenting the presence of racial and gender disparities at various stages of the criminal justice process (e.g., Antonovics and Knight 2009, Ayres and Waldfogel 1994, Rehavi and Starr 2014, Anwar et al. 2012, Abrams et al. 2012, Alesina and La Ferrara 2014, Starr 2015). Like these previous papers, we document the presence of both racial and gender disparities in federal sentencing. We build on this literature by specifically analyzing to what extent judicial political affiliation, as proxied for by the appointing president's political party, may contribute to these disparities.

The remainder of the paper is structured as follows. Section I provides a brief overview of the federal sentencing system. Section II describes our data and provides summary statistics. Section III describes our empirical strategy. Section IV presents our results and Section V

concludes.

I. Background

A. Federal Sentencing Guidelines

In order to eliminate unwarranted sentencing disparities "among defendants with similar records who have been found guilty of similar criminal conduct," Congress created the United States Sentencing Commission (USSC) to adopt and administer the Federal Sentencing Guidelines. The Guidelines were part of a movement to limit discretion among judges in order to reduce disparities in sentencing and to decrease racial discrimination (Frankel 1973). Some members of the public also argued that judges endangered public safety with lenient sentencing of offenders (Tonry 2005). Part of the Sentencing Reform Act of 1984, the Guidelines apply to all federal offenses committed after November 1, 1987, and prohibit courts from using race, sex, national origin, creed, religion, and socioeconomic status in sentencing decisions.

Under the Guidelines, federal district court judges assign each defendant's crime to one of 43 offense levels, and each defendant to one of six criminal history categories. The more serious and harmful the offense, the higher the offense level. For instance, trespass offenses are assigned a base offense level of four, while kidnapping is assigned a base offense level of 32. From the base offense level, adjustments are made for applicable offense and defendant characteristics in order to obtain the final offense level. For example, adjustments are made based on characteristics such as the amount of loss involved in the offense, use of a firearm, and the age or condition of the victim. Further adjustments are made based on aggravating or mitigating factors, such as obstruction of justice or a defendant's acceptance of responsibility. The criminal history category reflects the frequency and severity of a defendant's prior criminal convictions, with points added for each prior offense. These points are then converted into a criminal history category that ranges from one to six. The combination of the final offense level and criminal history category yields a narrow Guidelines recommended sentencing range.

Early work documented that the adoption of the Guidelines reduced inter-judge sentencing disparities. Anderson, Kling, and Stith (1999) found that the difference in sentence length between two typical judges fell from 17 percent of the average sentence before the Guidelines to 11 percent in the several years after the Guidelines were implemented. However, many scholars have criticized the Guidelines for shifting power to prosecutors in their charging and plea-bargaining decisions (see Stith and Cabranes 1998, Alschuler 1978, Nagel and Schulhofer 1992).

For almost two decades, the Guidelines were mandatory and a judge was only permitted to depart from the Guidelines if there were recognized aggravating or mitigating circumstances. A judge departing from the Guidelines sentencing range would also have to justify her reasons for departure to the appellate court. In *United States v. Booker*, decided in January of 2005, the Supreme Court held that the long-standing mandatory federal Guidelines were unconstitutional under the Sixth Amendment. The Court ruled that the Sixth Amendment right to jury trial requires that, other than a prior conviction, only facts admitted by a defendant or proved beyond a reasonable doubt to a jury may be used to impose a sentence higher than the statutory maximum sentence. However, rather than invalidating the Guidelines altogether, the Supreme Court held that the Guidelines would be "effectively advisory," as opposed to mandatory. The Court explained that "district courts, while not bound to apply the Guidelines, must consult those Guidelines and take them into account when sentencing." Today, sentencing judges first calculate the recommended Guidelines range but are free to vary or depart from the range. As a result, *Booker* greatly increased the degree of judicial discretion afforded to judges.

Subsequent Supreme Court cases further increased judicial discretion by reducing the degree of appellate review for sentencing decisions (*Rita v. United States*, *Gall v. United States*), and by explicitly allowing sentencing judges to impose sentences outside the recommended Guidelines range because of policy disagreements with the USSC (*Kimbrough v. United States*). Since *Booker* and these subsequent cases were decided, researchers have found increases in both inter-judge sentencing disparities (Scott 2010, Yang 2014), as well as increases in racial disparities (USSC 2012, Fischman and Schanzenbach 2012, Yang 2015).

B. Federal Judges

In the federal system, if a defendant is convicted of an offense whether by trial or guilty plea, district court judges have the discretion to determine the sentence length. Federal district judges are appointed by the President and confirmed by the Senate. New appointments are generally made when a judge retires, takes senior status, or dies, leaving a vacancy in a district court. Historically, district court appointments occurred quickly and without much controversy. However, in recent decades, these lower court judgeships have created substantial interest and concern given that these judges decide a wide range of issues and are appointed for lifetime terms (Rutkus 2016). Indeed, the nomination process for lower court judges has involved substantially more Senate debate in recent years, in particular on whether nominees would be able to set aside any ideological biases, leading to a dramatic increase in the time from appointment to confirmation.

As of 2014, there are a total of 677 authorized federal district court judgeships. The 94

district courts range in the number of authorized judgeships. The largest district court is the Southern District of New York, with 28 authorized judgeships. The majority of other district courts have between two and seven judgeships.

We follow the prior literature in using the most common measure of judge ideology: the political affiliation of the appointing president. A natural question may be whether the party of the appointing president is a good proxy for the political affiliation or ideology of the sentencing judges. Indeed, judicial appointments may be influenced not only by the President but also the Senate. In the United States, under the norm of senatorial courtesy, a Senator of the same party as the President can exercise considerable influence on who is appointed to a judgeship. Nevertheless, prior researchers have found that in the context of federal district courts, the party of the appointing President is substantially correlated with other ideological proxies, such as the judge's own political affiliation or the political affiliation of same-party Senators (see Epstein, Landes, and Posner 2013).

II. Data

A. Data Sources

This paper utilizes data from three sources: (1) the United States Sentencing Commission, (2) the Transactional Records Access Clearinghouse, and (3) the Federal Judicial Center.

United States Sentencing Commission - We use publicly available data from the USSC on records of all federal offenders sentenced in fiscal years 1999-2015 (October 1, 1998 - September 30, 2015). These data include demographic, Guidelines application, and sentencing information on federal defendants. This information is obtained from numerous documents on every offender such as the indictment, pre-sentence report, plea agreement (if applicable), and judgment of conviction. However, judge identifiers are redacted in the USSC data.

Demographic variables include each defendant's race, gender, age, citizenship status, and educational attainment. Data is also provided on the primary offense type, with a total of 35 offense categories. Offense level variables include the base offense level and the final offense level after all adjustments. Criminal history variables include whether the defendant has a prior criminal record and the final criminal history category.

Sentencing characteristics include the district court in which sentencing occurred (94 total) and the sentencing month and year.[2] Data is also available on whether a case is settled

[2]USSC data prior to 2004 includes information on the exact sentencing day, but this variable is not available in later years.

by plea agreement or trial, probation length, and the amount of any fines imposed. In this paper, we rely on sentence length in months, including zeros, as our primary sentencing outcome. For sentence length, we top-code at the first and 99th percentiles to remove the influence of outliers.

Transactional Records Access Clearinghouse - We use proprietary data from the Transactional Records Access Clearinghouse (TRAC), which provides sentencing data obtained through Freedom of Information Act (FOIA) requests. The data do not contain defendant demographics or Guidelines application information, but defendants are linked to the sentencing judge. The TRAC data also provide basic information on the sentencing district, sentencing month and year, as well as the length of any probation and sentence imposed, and the amount of any fines imposed.

To link detailed defendant and crime characteristics to sentencing judge, we match sentencing records from the USSC to data provided by TRAC. Specifically, we match on district court, sentencing year, sentencing month, sentence length in months, probation length in months, amount of total monetary fines, whether the case ended by trial or plea agreement, and whether the case resulted in a life sentence. On the basis of these characteristics, we successfully match approximately 50 percent of all USSC cases from fiscal years 1999-2015. The final matched dataset consists of 557,112 cases during the sample period.

Because our matching variables are sometimes not unique, particularly for cases that result in no term of imprisonment, our matched sample is different in some dimensions from the full sample of USSC cases. Compared to unmatched cases, matched cases are more likely to be of defendants who received a longer prison sentence. For example, in the full USSC data from 1999-2015, the average sentence length is 46.8 months and the average defendant has a final offense level of 18.2 and final criminal history of 2.4. In our matched dataset, the average sentence length is 60.3 months and the average defendant has a final offense level of 20.2 and final criminal history of 2.5. All our results are estimated on this matched sample and as a result, our results should be interpreted with this sample in mind.

While the sample of cases in our matched dataset is skewed towards more serious cases, we also explicitly test for the underlying assumption of our empirical design: that any difference in case characteristics by judge political affiliation is similar for black and white defendants, and female and male defendants. We explore this assumption in Section II.B.

Federal Judicial Center - To provide information on judge characteristics, we further match the USSC and TRAC linked data to judge biographical data from the Federal Judicial Center.[3] From the Federal Judicial Center, we obtain information on judge race, gender,

[3]The Federal Judicial Center does not collect demographic information on judges in three districts:

political affiliation of appointing president, and commission year. In our sample from 1999-2015, there are a total of 1,399 unique active judges. Among these judges, 43.8 percent were appointed by Democratic presidents, 82.2 percent are white, and 79.7 percent are male.

Table 1 presents summary statistics of the cases in our our matched estimation sample by the political affiliation of the sentencing judge. In terms of our outcome variable, sentence length, Republican judges give average sentences of 61.5 months compared to 55.4 months by Democratic judges. In contrast, offense and demographic characteristics are qualitatively similar across Republican and Democratic judges. For example, 30.9 percent of defendants assigned to Republican judges are black and 30.1 percent of defendants assigned to Democratic judges are black. Similarly, 13.7 percent of defendants assigned to Republican judges are female and 13.5 percent of defendants assigned to Democratic judges are female. Republican and Democratic judges are also assigned defendants similar in age, average final offense level, and average criminal history. These descriptive statistics suggest that case distribution on observables is similar by judge political affiliation but that average sentence lengths imposed are not, consistent with Schanzenbach and Tiller (2008) who find that Republican judges impose higher sentences than their Democratic counterparts.

Table 1 also presents summary statistics on other judge characteristics by political affiliation. Table 1 reveals that black judges are disproportionately appointed by Democratic presidents, with 14.5 percent of Democratic judges black compared to 4.8 percent among Republican judges. Similarly, Democratic judges are more likely to be female, with 26.5 percent female compared to 15.5 percent among Republican judges. Democratic and Republican judges are similar in terms of judge age and the percent who were former prosecutors.

In Table 2, we present additional summary statistics by cases that were decided before *Booker* and cases decided after *Booker*. Given our sample period of 1999-2015, 253,164 cases were decided in the pre-*Booker* period and 303,948 cases were decided in the post-*Booker* period. Offender and crime characteristics are similar between the two time periods, although average sentences are higher in the post-*Booker* period. On average, the proportion of female judges and Republican appointed judges increases post-*Booker*.

B. Testing for Case Selection by Political Affiliation

In this section, we test for whether there is differential case selection by political affiliation that varies by defendant race or gender. Specifically, because our paper tests whether judge political affiliation is a source of disparities in sentencing, we rely on the assumption that any differences in case characteristics across Republican and Democratic judges is not different by offender traits such as race or gender. If there is no differential gap in case characteristics,

Guam, Virgin Islands, and Northern Mariana Islands.

we can attribute differences in sentencing disparities to political affiliation itself, rather than observable and unobservable case characteristics. Importantly, our analysis does not rely on the more stringent assumption that there are no absolute differences in cases assigned to Republican versus Democratic judges. Instead, we rely on the assumption that any relative differences by the political affiliation of the sentencing judge are not statistically different by defendant race or gender.

In order to test this assumption, we regress criminal history and offense severity, which determine the Guidelines sentencing range, on an indicator for being assigned to a Republican judge versus a Democratic judge. Specifically, we analyze case selection on criminal history category, base offense level, and final offense level. We control for district court and year fixed effects and cluster our standard errors at the judge level.

Table 3 presents results testing for differential case selection by defendant race. In column 1, we find that among black defendants, Republican judges have cases with slightly higher criminal history and cases with higher base and final offense levels compared to Democratic judges. In column 2, we present the analogous results for white defendants and find a similar pattern. In general, Republican judges appear to have more "serious" cases, potentially due to offense level manipulation (Schanzenbach and Tiller 2008). In column 3, we test whether case differences by political affiliation differ by defendant race. Reassuringly, we find no evidence that differences in case selection by political affiliation differ by the race of the defendant.

In contrast, we continue to find evidence of significant differences in sentence length by judge political affiliation. Specifically, conditional on district court and year fixed effects, Republican judges sentence white offenders to 3.0 months longer than Democratic judges, but sentence black offenders to 5.8 months longer than Democratic judges, with the difference (2.8 months) statistically significant at the one percent level (p-value = 0.006).

Table 4 presents an analogous set of results testing for differential case selection by defendant gender. As for defendant race, we find that Republican judges have on average more "serious" cases for both female offenders and male offenders relative to Democratic judges. However, the difference in these case characteristics is not statistically different by defendant gender. In contrast, we continue to find significant differences in sentencing. Republican judges sentence female defendants to 2.3 months longer than Democratic judges, but sentence male defendants to 4.3 months longer than Democratic judges, with the difference statistically significant at the one percent level (p-value = 0.004). In sum, these results indicate that any differences in racial or gender gaps in sentencing by political affiliation are unlikely to be due to differential case selection, but rather judge-specific ideology.

III. Empirical Methodology

A. Estimation Specification

This paper estimates the impact of judge political affiliation on disparities in sentencing. Intuitively, we compare how similar white and black defendants (or female and male defendants) are sentenced based on whether they are assigned to a Democratic or Republican judges within the same district court. Our main specification is of the form:

$$Y_{ijtc} = \beta_0 + \beta_1 * Republican_{ij} + \beta_2 * Black_i + \beta_3 * Female_i + \beta_4 * Republican_{ij} * Black_i + \beta_5 * Republican_{ij} * Female_i + \mathbf{X}_i + \gamma_t + \kappa_c + \epsilon_{ijtc} \quad (1)$$

where Y_{itc} is the sentence length (including zeros) for defendant i sentenced in year t and district court c. $Republican_{ij}$ is an indicator variable for whether defendant i was sentenced by a Republican appointed judge. $Black_i$ is an indicator for whether the defendant i is black, where the omitted category is white. $Female_i$ is an indicator for whether the defendant i is female, where the omitted category is male.

$\mathbf{X}_i$ comprises a vector of demographic characteristics including gender, age, age squared, number of dependents, education, and citizenship status. Case characteristics include the most severe offense type, whether the case resolved by plea or trial, and whether the offense involved the use of a weapon. $\mathbf{X}_i$ also includes a full set of fixed effects for each final offense level and final criminal history combination (258 total). The specification also includes sentencing year fixed effects (γ_t) and district court fixed effects (κ_c). All standard errors are clustered at the judge level to account for serial correlation.

In this specification, β_1 estimates any difference in the average sentences imposed by Republican and Democratic judges for observably similar offenders. β_2 captures the presence of any racial disparities in sentence length and β_3 captures the presence of any gender disparities in sentence length. The main coefficients of interest are β_4, which estimates whether racial disparities in sentence length are different across Republican and Democratic judges, and β_5, which estimates whether gender disparities in sentence length are different across Republican and Democratic judges.

In additional specifications, we also control for a full set of judge fixed effects (σ_j) to control for time-invariant unobserved differences across judges:

$$Y_{ijtc} = \beta_0 + \beta_1 * Republican_{ij} + \beta_2 * Black_i + \beta_3 * Female_i + \beta_4 * Republican_{ij} * Black_i + \beta_5 * Republican_{ij} * Female_i + \mathbf{X}_i + \gamma_t + \kappa_c + \sigma_j + \epsilon_{ijtc} \quad (2)$$

In addition to documenting how racial and gender disparities differ by the political affiliation of the sentencing judges, we also explore how sentencing differences by judge ideology change in response to increased judicial discretion. As discussed previously, we explore whether the differential race and gender disparities by political affiliation change when judges have more discretion using the timing of *Booker* as a natural experiment. We estimate these effects using a standard differences-in-differences methodology. For example, in the context of racial disparities, our specification is of the form:

$$Y_{ijtc} = \alpha_0 + \alpha_1 * Republican_{ij} + \alpha_2 * Black_i + \alpha_3 * Republican_{ij} * Black_i + \alpha_4 * Booker + \alpha_5 * Republican_{ij} * Booker + \alpha_6 * Black_i * Booker + \alpha_7 * Republican_{ij} * Black_i * Booker + \mathbf{X}_i + \gamma_t + \kappa_c + \sigma_j + \epsilon_{ijtc} \quad (3)$$

Here, α_6 measures the impact of *Booker* on racial disparities in sentence length. The coefficient of interest is α_7, which captures how the differential gap in racial disparities by political affiliation changes after *Booker*. With the addition of judge fixed effects, this estimate is identified off of changes within judges over time.

We also explore whether peer effects affect racial disparities in sentencing. In other words, what happens to disparities when the composition of a judge's peer group changes? To do so, we exploit plausibly exogenous variation in the percent of the district court that is Republican. Changes in the composition of district courts stem from a variety of reasons: resignation, retirement, death, disability, and most commonly, the taking of senior status. A large literature documents that the primary reasons for retirement and the taking of senior status is pension qualification (Spriggs and Wahlbeck 1995, Yoon 2005, Choi, Gulati, and Posner 2011), a function of judge age and experience, and thus plausibly exogenous from case outcomes (Yang 2016).

To test for peer effects, we interact our main dependent variables with the fraction of the court that is Republican. For instance, in the context of racial disparities, we estimate a specification of the form:

$$Y_{ijtc} = \delta_0 + \delta_1 * Republican_{ij} + \delta_2 * Black_i + \delta_3 * Republican_{ij} * Black_i + \delta_4 * \%Rep + \delta_5 * Republican_{ij} * \%Rep + \delta_6 * Black_i * \%Rep + \delta_7 * Republican_{ij} * Black_i * \%Rep + \mathbf{X}_i + \gamma_t + \kappa_c + \sigma_j + \epsilon_{ijtc} \quad (4)$$

In this specification, δ_5 measures the impact of an increase in the share of a court comprised of Republican judges on the sentencing behavior of Republican judges versus Democratic judges and δ_7 captures whether racial disparities by political affiliation change when the composition of a court changes. Over the sample period in our study, the percent of Republican judges within a district averages 48.3 percent (see Figure 1). Figure 2 presents our source of variation, the average annual change in the percent Republican, which roughly ranges from increases and decreases of ten percentage points.

IV. Results

A. Main Results

Table 5 presents our main results for sentence length in months. In column 1, we estimate the effect of uninteracted defendant and judge characteristics on sentence length. Column 2 adds a full set of judge fixed effects. In column 3, we estimate our main specification, Equation (1), which interacts defendant race and defendant gender with judge political affiliation. Column 4 adds judge fixed effects to this specification. In all specifications, we control for the full set of defendant demographic and crime characteristics, in addition to fully interacted fixed effects for each offense level and criminal history category combination. Specifications also include district court and sentencing year fixed effects. Standard errors are clustered at the judge level throughout.

Column 1 indicates that black offenders are sentenced to 3.5 months more in prison compared to similar white offenders. Female offenders receive 6.2 fewer months compared to similar male offenders. Older offenders receive longer sentences than younger offenders. These results are similar with the addition of judge fixed effects in column 2. Column 1 also indicates that there is no significant relationship between judge race, judge gender, or judge age, with sentence length. However, we find a significant relationship between judge political affiliation and sentence length. Consistent with prior work, we find that Republican judges give defendants an average of 1.7 months longer in prison than Democratic judges, 2.6 percent of the mean sentence length.

In column 3, we find that part of the racial and gender gaps in sentencing are driven by judge political affiliation. Our interaction of the Republican judge indicator and offender

race suggests that Republican judges give black offenders an additional 1.4 months in prison compared to white offenders, relative to Democratic judges in the same district court, over half of the racial sentence gap. We also find that Republican judges give female offenders 1.4 fewer months in prison compared to males, relative to Democratic judges, 26 percent of the gender gap in sentence length. The results are robust and very similar in magnitude with the addition of judge fixed effects in column 4. Overall, these results suggest that Republican judges exhibit larger racial disparities but smaller gender disparities compared to Democratic judges. However, Republican judges impose longer sentences on average relative to their Democratic counterparts. The results in column 4 indicate that a female defendant assigned to a Republican judge is sentenced similarly as a male defendant assigned to a Democratic judge.

In addition, we find that these results are not driven by other judge characteristics that are correlated with judge political affiliation. In particular, we explore the potential for judges to exhibit differential sentencing behavior due to own-race or own-gender effects. For example, Republican judges are more likely to be male. If male judges are more likely to give fewer months in prison to female defendants, this could explain our main finding that Republican judges exhibit smaller gender disparities than Democratic judges. In column 1 of Table 6, we test for own-race and own-gender effects by interacting judge race with defendant race and judge gender with defendant gender. In addition, we also control for our full set of judge effects. Our results suggest that these interactions are relatively small and statistically insignificant. In column 2 of Table 6, we estimate our main specification adding these own-race and own-gender interactions to test for whether our results by political affiliation are due to other judge characteristics. Unsurprisingly, given our results in column 1, we find that even after controlling for these other interactions, there is a large and significant effect of judge political affiliation on racial and gender gaps in sentencing. The magnitudes of these effects are almost identical to those in our main results (Table 5). These results indicate that our main findings are due to judge ideology as proxied by the political affiliation of the appointing president.

B. Increased Judicial Discretion

We next explore whether racial and gender disparities driven by judge political affiliation are the result of judge-specific preferences. In particular, if these differences by political affiliation reflect preferences, we might expect to see larger or more pronounced differences when judges are given more discretion. Recall that prior to 2005, the Federal Sentencing Guidelines were mandatory, such that judges were generally constrained to the sentence length recommended by the intersection of the offense level and criminal history. After the

Supreme Court's 2005 decision in *Booker*, the Guidelines were rendered advisory such that judges could sentence outside of the Guidelines-recommended range. As a result, one might expect judges to be more free in exhibiting their true sentencing preferences in the aftermath of *Booker*.

In column 1 of Table 7, we present results from our main specification using cases decided before *Booker* (1999-2005) and in column 2 we present results using cases decided after *Booker* (2005-2015). Column 3 presents results interacting a *Booker* indicator with offender and judge characteristics consistent with Equation (3). In all specifications, we control for the full set of defendant demographic and crime characteristics, in addition to fully interacted fixed effects for each offense level and criminal history category combination, and a full set of judge fixed effects. Specifications also include district court and sentencing year fixed effects. Standard errors are clustered at the judge level throughout.

In our sample of cases decided before *Booker* (column 1), we find that black defendants are sentenced to 2.7 months longer than observably similar white defendants. However, we find limited evidence that Republican and Democratic judges exhibit different racial gaps in sentencing. In contrast, Republican judges have smaller gender disparities than Democratic judges. In the sample of cases decided after *Booker* (column 2), racial disparities are much larger among Republican judges than Democratic judges. Republican judges sentence black defendants to 2.0 months longer in prison relative to whites compared to their Democratic counterparts. The magnitude of this difference is roughly 67 percent of the average racial gap in sentence length after *Booker*.

Our differences-in-differences estimates in column 3 indicate that racial disparities increased in general after *Booker*. After *Booker*, black defendants are sentenced to 0.93 months longer in prison than similar white defendants. We also find that after *Booker*, Republican judges give longer sentences to all offenders than Democratic judges. After *Booker*, Republican judges give all defendants 1.4 months longer in prison compared to Democratic judges.

In addition, the interaction of *Booker* and judge political affiliation indicates that post-*Booker*, racial disparities by political affiliation expanded. After *Booker*, black defendants assigned to Republican judges receive an *additional* 1.4 months longer in prison relative to similar white defendants compared to if they had been assigned to a Democratic judge. These results indicate that our main findings on racial gaps by political affiliation are largely driven by the cases decided after *Booker* when judges were granted substantially more discretion. In contrast, we find limited evidence that differences in gender disparities by political affiliation changed after *Booker*. Throughout the entire sample period, Republican judges consistently exhibited smaller gender disparities than Democratic judges.

C. Judge Tenure

Next, we explore whether differences in racial and gender sentence gaps by judge political affiliation change with judge tenure. Judges may change how they decide cases based on how long they have served on the bench, potentially learning with experience. We test for different sentencing behavior based on experience by separately estimating our main specification for judges with different years of experience. In particular, we split sentencing decisions in those decided in the first five years of a judge's tenure, five to ten years, and more than ten years. Given the time span of our study and the life tenure of district court judges, the majority of cases in our sample are decided by judges with at least ten years of experience on the federal bench.

Table 8 presents these results. In columns 1 through 3, we present results separately by years of experience. We find evidence that Republican judges exhibit substantially larger racial disparities in the first five years of tenure relative to Democratic judges. In the first five years, Republican judges sentence black defendants to 2.9 months longer than similar white defendants relative to Democratic judges. By five to ten years of experience, the difference in racial gaps by political affiliation falls to 1.8 months, and by more than ten years of experience, the difference becomes statistically insignificant. These results indicate that with greater experience on the bench, Republican and Democratic judges converge in their sentencing of black offenders relative to white offenders.

We find a similar convergence pattern with respect to the sentencing of female defendants relative to male defendants. In the first five years, Republican judges sentence female defendants to 2.6 fewer months than similar white defendants relative to Democratic judges. By five to ten years of experience, the difference in gender gaps by political affiliation falls to 1.3 months, and by more than than ten years, the difference becomes 1.2 months. While still statistically significant ten years out, the difference in gender disparities by political affiliation is more than halved from the first five years of a judge's career. These results indicate that years of experience, and any learning associated with it, may reduce racial and gender gaps caused by judge ideology.

One concern with these estimates may be that by comparing cases decided by judges with differing years of experience, our results may be biased due to the differing composition of judges in each experience range. For example, newer judges will disproportionately have five or fewer years of experience. To assess whether this compositional effect could be driving our results, we also estimate our results using a balanced sample where we limit judges to only those we observe for ten years or more. In this balanced sample, we estimate experience effects on the exact same set of judges over time. Columns 4 through 6 of Table 8 present these results. In this balanced panel, we continue to find that differences in racial and gender

disparities in sentencing by judge political affiliation became smaller as judges become more experienced. These results indicate that experience reduces disparities caused by judge political affiliation.

Recall that we find that larger differences in racial gaps by political affiliation emerged primarily after judges were granted more discretion. The extent to which judge experience affects sentencing behavior may be altered by the underlying regime. For example, judges may learn to sentence more consistently and equitably with more experience due to the constraining effect of the mandatory Guidelines. In a world in which the Guidelines are simply advisory, greater experience may have a different effect on sentencing behavior.

To explore the interaction between judge experience and discretion, we separately estimate our experience results by cases decided before *Booker* and after *Booker*. Table 9 presents these results using the full sample of cases. In the subsample of cases decided prior to *Booker*, we continue to find evidence that differences in racial and gender gaps by political affiliation diminish with years of experience. For example, in the first five years of tenure, Republican judges sentence black defendants to 2.2 months longer than similar whites compared to Democratic judges, but this difference is no longer statistically significant for judges with ten or more years of experience.

We find a similar pattern of convergence with experience in the subsample of cases decided after *Booker*. The difference in racial disparities by political affiliation falls from 3.3 months for judges in their first five years on the bench to 1.6 months for judges with at least ten years of experience, a 50 percent decrease. Similarly, the difference in gender disparities falls from 2.3 months for judges in their first five years to 1.5 months for judges with at least ten years of experience, a 35 percent decrease. However, differences in both racial and gender disparities by political affiliation persist and remain significant in the post-*Booker* time period, whereas they become statistically insignificant with judicial experience in the pre-*Booker* period. Combined, these results suggest that as judges become more experienced, they converge in their sentencing of different offenders. However, experience has a smaller impact on sentencing outcomes when judges are granted more discretion.

D. Peer Effects

The previous results indicate that part of the racial and gender gaps in sentencing may be driven by judge political affiliation. These differences by political affiliation are responsive to both changes in the underlying environment through changes in judicial discretion and responsive to individual experience and tenure.

In this section, we explore another potential mechanism that may explain our results. We consider to what extent individual judges are responsive to changes in the composition

of their court or peer group. A large literature on federal court of appeals judges shows that the composition of three-judge panels has an effect on case outcomes, but relatively limited work tests the impact of peer effects on district court judges who decide their cases independently. Yet district court judges work in close proximity with their peers and are potentially influenced by their colleagues. We measure peer effects by the percentage of each district court that is comprised of Republican judges, exploiting variation over time from judge resignations, retirements, deaths, and the taking of senior status.

Table 10 present these results using the estimation specification in Equation (4). In column 1, we estimate changes in the percent Republican in a district court on sentencing decisions of Democratic judges. In column 2, we estimate changes in the percent Republican on sentencing decisions of Republican judges, and in column 3, we include all judges.

Columns 1 and 2 indicate that when a court is comprised of more Republican judges, overall sentences, and in particular sentences for black offenders increase. In contrast, sentences for female offenders decrease. A ten percent increase in the share of Republican judges increases overall sentences by 0.56 months for Democratic judges (column 1) and 0.58 months for Republican judges (column 2). A ten percent increase in the share of Republican judges further increases sentences for black offenders by 0.60 months relative to white offenders for Democratic judges and 0.55 months relative to white offenders for Republican judges. Similarly, a ten percent increase in the share of Republican judges decreases sentences for female offenders by 0.58 months relative to male offenders for Democratic judges and 0.69 months relative to male offenders for Republican judges. In general, these results indicate that judges from both political parties respond similarly to a change in their peer groups.

In column 3, we include all judges and interact the composition of the court with judge political affiliation and defendant characteristics. We find some evidence that Republican judges issue longer average sentences than Democratic judges when a court is comprised of more Republicans. In contrast, we find limited evidence that the impact of a more Republican dominated court affects racial or gender disparities differently by political affiliation, consistent with our results in columns 1 and 2. Instead, a more Republican-dominated court changes the sentencing of all judges by increasing racial disparities and reducing gender disparities in sentence length. According to column 3, a ten percent increase in the share of Republican judges within a court decreases sentences for female offenders by 0.58 months relative to male offenders and increases sentences for black offenders by 0.59 months relative to similar white offenders.

Recall that we previously found that Republican judges typically exhibit larger racial disparities and smaller gender disparities than Democratic judges (Table 5). Our results here suggest that as a court becomes comprised of more Republican judges, all judges begin to

exhibit similar sentencing behavior as the typical Republican judge. While it is impossible to identify the precise mechanisms explaining these peer effects, our results suggest that judges may learn from their colleagues or feel pressure to sentence similarly to their peers.

V. Conclusion

In this paper, we explore the impact of judge political affiliation on racial and gender disparities in federal sentencing. Linking approximately half a million defendants with their sentencing judges, we find that Republican judges sentence black defendants to longer prison terms than whites compared to Democratic judges, with the difference by political affiliation approximately half of the average racial gap in sentence length. Republican judges also sentence female defendants to shorter prison terms than males compared to Democratic judges, with this difference representing roughly one-third of the average gender gap in sentencing. These results are robust to controlling for other judge characteristics as well as judge fixed effects.

Next, we explore potential mechanisms that may drive these differences by political affiliation. We find that differences in racial disparities by political affiliation expand when judges are given more discretion. These results suggest that our main findings may be driven by judge-specific preferences that are correlated with political affiliation. We also find evidence that differences in racial and gender gaps are largest in the first several years of tenure but diminish with greater experience, indicating that judges may learn to sentence more consistently and equitably over time. Finally, we find evidence that sentencing judges are affected by peer effects even when their decisions are made alone. When a court is comprised of more Republican judges, all judges sentence blacks more harshly than whites and sentence females more leniently than males.

Overall, these results indicate that judicial ideology may be a source of the persistent and large racial and gender disparities in the criminal justice system. For example, our results suggest that racial disparities in sentencing would be more than halved if federal district courts were comprised of all Democratic appointed judges, and reduced by 20 percent if courts were comprised of ten percent more judges appointed by Democratic presidents. In recent decades, the typical president has appointed an average of 163 district court judges in a four-year term. Under the current composition of the federal court system, these appointments could change the partisan composition of district courts by approximately 13 percentage points, which could substantially alter gender and racial disparities in the criminal justice system depending on the political affiliation of the appointing president. The potential to change disparities is even larger for two-term presidents.

Ultimately, our results indicate that the selection and appointment of federal district court judges is important not only for administering the legal system, but also has important distributional consequences, particularly in the current system where judges are granted considerable discretion.[4] We view exploring the impact of the selection of public officials on disparities in the criminal justice system as an important area for future research.

[4]See for example George Soros' mission to "find, prepare and finance criminal justice reform-oriented candidates for jobs that have been held by longtime incumbents and serve as pipelines to the federal courts..." See http://www.politico.com/story/2016/08/george-soros-criminal-justice-reform-227519.

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Table 1: Summary Statistics: Republican vs Democratic

	(1) Republican Judge	(2) Democratic Judge	(3) Difference
Sentence Length (in Months)	61.543	55.420	6.123
Offender Black	0.309	0.301	0.008
Offender Female	0.137	0.135	0.002
Offender Age	35.997	36.070	-0.073
Offender Final Offense Level	20.448	19.984	0.463
Offender Criminal History Category	2.571	2.500	0.070
Judge Black	0.048	0.145	-0.097
Judge Female	0.155	0.265	-0.110
Judge Age	62.104	61.408	0.696
% of Judges who were Former Prosecutors	0.065	0.061	-0.004
N	312,911	244,201	

Note: This table presents summary statistics on case and judge characteristics by judge political affiliation.

Table 2: Summary Statistics: Before vs After *Booker*

	(1) Before	(2) After	(3) Difference
Sentence Length (in Months)	53.905	62.986	-9.081
Offender Black	0.299	0.311	-0.012
Offender Female	0.135	0.136	-0.001
Offender Age	34.878	36.979	-2.101
Offender Final Offense Level	19.507	20.855	-1.348
Offender Criminal History Category	2.463	2.604	-0.141
Judge Black	0.090	0.090	0.000
Judge Female	0.174	0.228	-0.054
Judge Age	60.370	62.989	-2.619
Judge Republican	0.521	0.596	-0.075
N	253,164	303,948	

Note: This table presents summary statistics on case and judge characteristics before and after *Booker*.

Table 3: Case Selection by Race

	(1)	(2)	(3)
Dependent Variable	Black Offender	White Offender	p-value
Criminal History	0.050	0.039	0.568
	(0.018)	(0.012)	
Base Offense Level	0.501	0.314	0.232
	(0.155)	(0.116)	
Final Offense Level	0.407	0.255	0.255
	(0.135)	(0.103)	
Sentence Length (in Months)	5.800	3.031	0.006
	(1.233)	(0.726)	
N	168,045	374,364	

Note: Column 1 presents estimates of the difference in case characteristics by judge political affiliation for black offenders. Column 2 presents estimates of the difference in case characteristics by judge political affiliation for white offenders. Column 3 presents p-values testing for the difference in case characteristics for black and white offenders for Republican judges relative to Democratic judges. All regressions control for district and year fixed effects. Standard errors are clustered at the judge level.

Table 4: Case Selection by Gender

	(1) Female Offender	(2) Male Offender	(3) p-value
Criminal History	0.028	0.043	0.374
	(0.011)	(0.013)	
Base Offense Level	0.341	0.394	0.753
	(0.178)	(0.119)	
Final Offense Level	0.255	0.334	0.492
	(0.120)	(0.110)	
Sentence Length (in Months)	2.290	4.310	0.004
	(0.610)	(0.889)	
N	75,215	479,476	

Note: Column 1 presents estimates of the difference in case characteristics by judge political affiliation for female offenders. Column 2 presents estimates of the difference in case characteristics by judge political affiliation for male offenders. Column 3 presents p-values testing for the difference in case characteristics for female and male offenders for Republican judges relative to Democratic judges. All regressions control for district and year fixed effects. Standard errors are clustered at the judge level.

Table 5: Main Sentencing Outcomes

	(1) No Judge FE	(2) Judge FE	(3) No Judge FE	(4) Judge FE
Offender Black	3.503***	3.658***	2.730***	2.875***
	(0.179)	(0.168)	(0.302)	(0.282)
Offender Female	-6.201***	-6.246***	-5.386***	-5.346***
	(0.145)	(0.143)	(0.248)	(0.246)
Offender Age	0.222***	0.234***	0.223***	0.235***
	(0.027)	(0.027)	(0.027)	(0.027)
Offender Age Sq.	-0.003***	-0.003***	-0.003***	-0.003***
	(0.000)	(0.000)	(0.000)	(0.000)
Judge Black	-0.481		-0.444	
	(0.460)		(0.459)	
Judge Female	0.144		0.154	
	(0.339)		(0.339)	
Judge Age	-0.116		-0.117	
	(0.132)		(0.131)	
Judge Age Squared	0.001		0.001	
	(0.001)		(0.001)	
Judge Rep	1.668***		1.458***	
	(0.294)		(0.306)	
Judge Rep x Off Black			1.356***	1.372***
			(0.431)	(0.398)
Judge Rep x Off Female			-1.438***	-1.587***
			(0.353)	(0.349)
N	546,343	546,313	546,343	546,313
r2	0.78271	0.78620	0.78274	0.78623

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. We control for primary offense type, final offense level x criminal history category and year dummies. In columns (1) and (3) we also control for district dummies and in columns (2) and (4) we also control for judge fixed effects.

Table 6: Sentencing by Race and Gender

	(1) Race-Gender	(2) Political Affiliation
Offender Black	3.759***	2.975***
	(0.185)	(0.297)
Offender Female	-6.339***	-5.402***
	(0.170)	(0.277)
Offender Age	0.234***	0.235***
	(0.027)	(0.027)
Offender Age Sq.	-0.003***	-0.003***
	(0.000)	(0.000)
Judge Black x Off Black	-0.995^t	-0.603
	(0.649)	(0.647)
Judge Female x Off Female	0.458	0.210
	(0.421)	(0.430)
Judge Rep x Off Black		1.305***
		(0.398)
Judge Rep x Off Female		-1.564***
		(0.355)
N	546,313	546,313
r2	0.78620	0.78623

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. We control for judge, primary offense type, final offense level x criminal history category and year dummies.

Table 7: Sentencing Before and After Booker

	(1) Before Booker	(2) After Booker	(3) Diff-in-Diff
Offender Black	2.667***	3.002***	2.394***
	(0.332)	(0.367)	(0.338)
Offender Female	-5.376***	-5.382***	-5.136***
	(0.299)	(0.318)	(0.302)
Offender Age	0.130***	0.319***	0.229***
	(0.033)	(0.038)	(0.027)
Offender Age Sq.	-0.002***	-0.004***	-0.003***
	(0.000)	(0.000)	(0.000)
Judge Rep x Off Black	0.560	2.041***	0.527
	(0.479)	(0.503)	(0.482)
Judge Rep x Off Female	-1.218***	-1.700***	-1.208***
	(0.419)	(0.439)	(0.422)
Booker			-1.039*
			(0.540)
Booker x Off Black			0.926**
			(0.417)
Booker x Off Female			-0.409
			(0.381)
Booker x Judge Rep			1.409***
			(0.429)
Booker x Judge Rep x Off Black			1.388**
			(0.596)
Booker x Judge Rep x Off Female			-0.557
			(0.515)
N	246,899	299,380	546,313
r2	0.79660	0.78183	0.78630

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. We control for judge, primary offense type, final offense level x criminal history category and Year dummies.

Table 8: Sentencing by Judge Tenure

	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample			Balanced Sample		
Years of Exp.	<5	5-10	>10	<5	5-10	>10
Offender Black	2.466***	2.741***	3.160***	2.205***	2.850***	3.527***
	(0.394)	(0.452)	(0.384)	(0.497)	(0.458)	(0.477)
Offender Female	-4.699***	-5.403***	-5.770***	-4.322***	-5.375***	-5.810***
	(0.333)	(0.408)	(0.328)	(0.386)	(0.415)	(0.414)
Offender Age	0.173***	0.311***	0.227***	0.088	0.288***	0.226***
	(0.052)	(0.050)	(0.037)	(0.062)	(0.053)	(0.057)
Offender Age Sq.	-0.002***	-0.004***	-0.003***	-0.002**	-0.004***	-0.003***
	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)
Judge Rep x Off Black	2.948***	1.823***	0.700	2.733***	1.790**	1.011
	(0.672)	(0.683)	(0.509)	(0.820)	(0.740)	(0.746)
Judge Rep x Off Female	-2.593***	-1.255**	-1.150**	-2.459***	-1.150*	-1.480**
	(0.550)	(0.575)	(0.450)	(0.668)	(0.602)	(0.647)
N	116,273	133,843	296,162	76,348	119,911	143,578
r2	0.80531	0.78713	0.78205	0.81254	0.78764	0.77346

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. We control for judge, primary offense type, final offense level x criminal history category and Year dummies.

Table 9: Sentencing by Judge Tenure - Before and After Booker

	(1)	(2)	(3)	(4)	(5)	(6)
	Before Booker			After Booker		
Years of Exp.	<5	5-10	>10	<5	5-10	>10
Offender Black	2.505***	2.891***	2.945***	2.244***	2.831***	3.258***
	(0.473)	(0.481)	(0.646)	(0.665)	(0.901)	(0.444)
Offender Female	-4.620***	-5.887***	-5.526***	-4.852***	-4.917***	-5.787***
	(0.373)	(0.478)	(0.546)	(0.653)	(0.722)	(0.385)
Offender Age	0.111*	0.207***	0.092*	0.231***	0.405***	0.315***
	(0.062)	(0.065)	(0.050)	(0.079)	(0.075)	(0.051)
Offender Age Sq.	-0.002**	-0.003***	-0.002***	-0.003***	-0.005***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Judge Rep x Off Black	2.158**	0.457	-0.082	3.295***	2.134*	1.575**
	(0.920)	(0.886)	(0.723)	(0.911)	(1.096)	(0.634)
Judge Rep x Off Female	-2.835***	-0.263	-0.991^t	-2.320***	-1.410^t	-1.522***
	(0.724)	(0.739)	(0.650)	(0.821)	(0.885)	(0.556)
N	60,874	68,102	117,904	55,395	65,735	178,228
r2	0.81129	0.79346	0.79470	0.80203	0.78394	0.77786

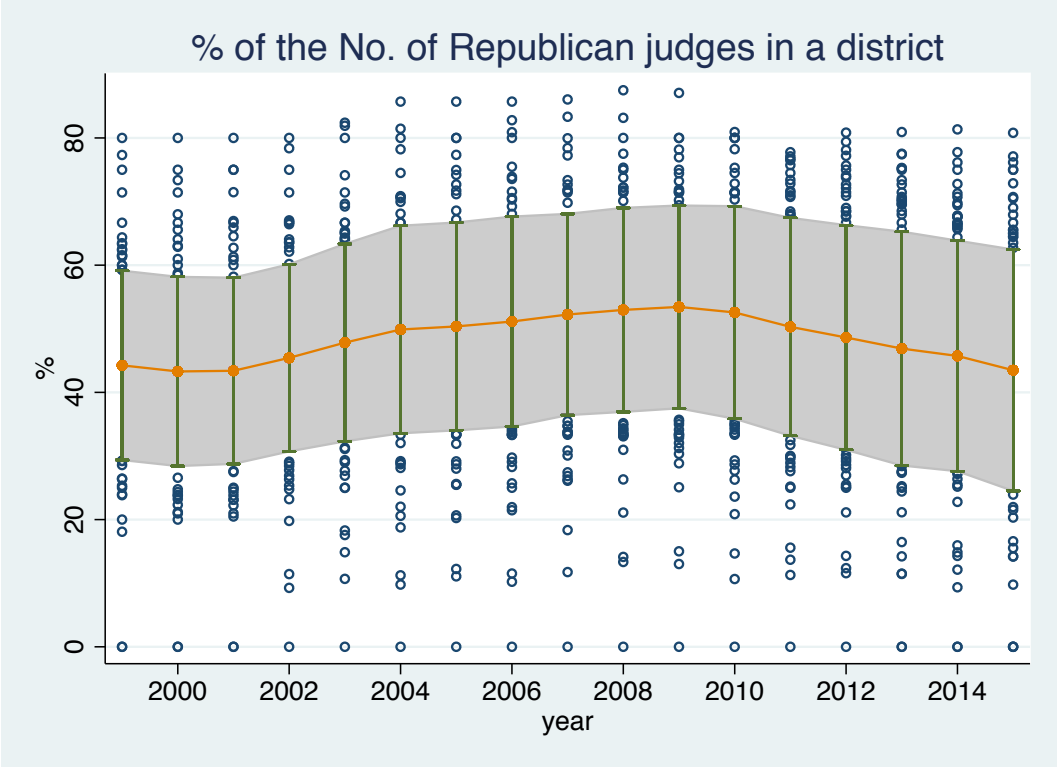
Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. We control for judge, primary offense type, final offense level x criminal history category and Year dummies.

Table 10: Sentencing by Peer Effects

	(1) Democratic	(2) Republican	(3) All Judges
Offender Black	0.511	1.148	0.151
	(1.137)	(1.056)	(1.134)
Offender Female	-3.263***	-3.100***	-2.633**
	(1.022)	(0.898)	(1.029)
Offender Age	0.267***	0.167***	0.215***
	(0.045)	(0.046)	(0.032)
Offender Age Sq.	-0.004***	-0.003***	-0.003***
	(0.001)	(0.001)	(0.000)
Judge Rep x Off Black			1.390
			(1.560)
Judge Rep x Off Female			-1.008
			(1.384)
Percent Rep Judges	6.608**	5.753**	3.774^{t}
	(2.728)	(2.292)	(2.544)
Percent Rep x Off Black	6.007***	5.480***	5.910**
	(2.301)	(2.056)	(2.312)
Percent Rep x Off Female	-5.781***	-6.897***	-5.813***
	(2.029)	(1.738)	(2.018)
Percent Rep x Judge Rep			5.796*
			(3.047)
Percent Rep x Judge Rep x Off Black			-0.490
			(3.111)
Percent Rep x Judge Rep x Off Female			-1.081
			(2.681)
N	239,520	306,520	546,051
r2	0.76713	0.77756	0.77271

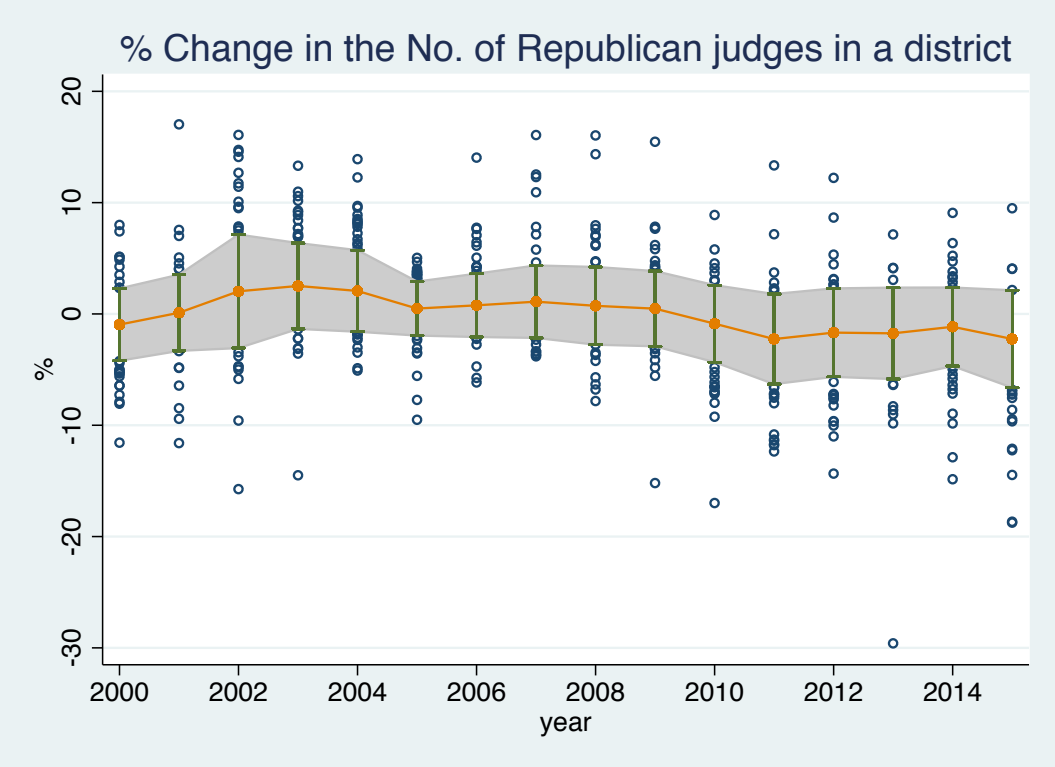
Note: Standard errors in parentheses, are weighted by the number of judges in each court, and are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. We control for judge, primary offense type, final offense level x criminal history category and Year dummies.

Figure 1: Percent of Republican Judges



Note: This graph presents the percent Republican in each district court over our sample period.

Figure 2: Percent Change in Republican Judges



Note: This graph presents the average annual change in the percent Republican in each district court over our sample period.