Judicial Politics and Sentencing Decisions*

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Abstract

Racial and gender disparities are prevalent in the criminal justice system. In this paper, we investigate the extent to which the political affiliation of judges contributes to these disparities. We use rich data on approximately half a million federal defendants sentenced between 1999 and 2015 linked to sentencing judge. Exploiting the random assignment of cases to judges, 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. Consistent with the association between disparities and political affiliation being due to judge preferences, the association is stronger when judges are granted more discretion. We also find evidence that much of the racial and gender disparities by political affiliation are driven by Republican judges born in the Midwest/South. Our findings contribute to understanding both the significance of judges' political affiliation and the sources of racial and gender disparities in sentencing.

JEL Codes: H1, J15, J71, K0, K14, K40, K41
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Introduction

In the United States, racial and gender disparities are prevalent in the criminal justice system and have long been the subject of significant attention. 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). This racial disparity in sentencing decisions contributes to the fact that black defendants comprise a disproportionate fraction of the prison population relative to their proportion in the overall population (Carson and Sabol 2012). Similarly, male defendants are sentenced to substantially longer time in prison than female defendants even after accounting for arrest offense and criminal history (Mustard 2001, Starr 2015). These large racial and gender disparities have long been the subject of heated debate. As a result, understanding the sources of these disparities is an important policy question. In this study, we investigate whether judges' political preferences influence racial and gender gaps in sentencing decisions.

Prior research has shown that Republican judges reach different outcomes compared to Democratic judges in a variety of contexts (see Sunstein et al. 2006). In the context of criminal sentencing, Republican judges have been reported to give longer sentences for the same crime compared to their Democratic appointed counterparts (see Schanzenbach and Tiller 2007, 2008). However, unexplored is the question of whether judges' political preferences are a source of the persistent and large racial and gender disparities in federal criminal sentencing. This question is of growing importance because of the increasing politicization of the federal judiciary where judges are appointed for lifetime terms, particularly among federal district court judges who "serve as the final arbiter of more than 99 percent of all federal court litigation" (Scherer 2005, Binder and Waltzman 2009, Wittes 2009). Today, the appointments process for lower court judges has reached heightened interest, with senators regularly debating the qualification of nominees, such as whether nominees would bring with them ideological agendas or other disqualifying biases. Given the increasing politicization of the appointments process, in recent years, the Senate has confirmed fewer lower court judges by unanimous consent than historically and the average time from nomination to confirmation now exceeds several months compared to weeks historically (see Rutkus 2016), leading some to claim that "[j]udicial selection has been contentious at numerous junctures in U.S. history, but seldom has it seemed more acrimonious and dysfunctional than in recent years" (Binder and Maltzman 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. Prior research on the subject has almost exclusively relied on court-level variation in the percent of Democratic or Republican judges within a district court to study the impact of political affiliation on sentencing (see e.g. Schanzenbach and Tiller 2007). 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. Using only 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). A few papers employ small samples linked to sentencing judge to explore the

impact of political affiliation on sentencing in the aggregate in the federal system. For example, Schanzenbach and Tiller (2008) link approximately 2,200 sentencing decisions to the judge, finding that individual Republican judges giving longer sentences for the same crime compared to their Democratic appointed counterparts.

In this paper, we improve upon the prior literature by relying on individual judge-level variation in over half a million cases and controlling extensively for a full set of judge fixed effects to account for unobserved differences in sentencing driven by judges and prosecutors. Specifically, to investigate whether judge political affiliation affects disparities in sentencing, we build a new dataset linking federal sentencing data with judge information for defendants sentenced between 1999 and 2015. In our sample, we observe the sentencing practices of approximately 1,400 unique judges. Using this data, we analyze whether judge political affiliation can explain the large racial and gender disparities in sentencing. Intuitively, we compare how judges appointed by a Republican President ("Republican judges") sentence black versus white offenders, or female versus male offenders, relative to judges appointed by a Democratic President ("Democratic judges").

The key assumption of our empirical design is that any differences in characteristics of cases assigned to Republican versus Democratic judges are not unbalanced by defendant race or gender. This assumption allows us to infer that any differences in disparities by political affiliation are not the product of differences in observed and unobserved case characteristics across judges. 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, can be attributed to differences associated with judge political affiliation rather than differences in case and defendant characteristics.

In sharp contrast to the prior literature relying on court-level variation, 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 1.5 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.

Next, we explore the potential mechanisms that drive these differential disparities by judge political affiliation. In particular, we analyze three importance dimensions that may affect sentencing behavior: (1) judicial discretion, (2) judicial tenure, and (3) region of birth. 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*, which greatly increased judicial discretion by making the prior mandatory Sentencing

Guidelines advisory. 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 1.3 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 is largest in the earlier stages of a judge's career, and becomes much smaller and sometimes statistically insignificant with judge tenure. These results suggest that, potentially due to learning and acculturation, judges converge in their sentencing patterns. However, we 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 intensity of political preferences as reflected by region of birth. We find that racial and gender disparities by political affiliation are largely driven by Republican judges born in the Midwest/South, regions most often associated with a more conservative ideology, relative to Democratic judges. For Republican judges born in the Midwest/South, the average racial gap in sentence length is 2.4 months larger than for Democratic judges within the same court, with the difference being larger post-*Booker*. These results are consistent with Alesina and La Ferrara (2014) who find that racial bias in capital sentencing is driven exclusively by capital sentences from Southern states. We find a similar effect on gender gaps in sentence length, with differences by political affiliation primarily driven by Republican judges born in the Midwest/South. In contrast, we find statistically insignificant differences in both racial and gender disparities for Republican judges born in the West/Northeast compared to Democratic judges. These results provide further support that preferences and ideology may explain our results.

In the last part of our paper, we consider the possibility that decisions made by federal prosecutors may explain our results. Because prosecutorial discretion can lead to differential treatment of defendants prior to sentencing (Rehavi and Starr 2014), we consider whether our main findings can be accounted for by differential decisions made by prosecutors that affect sentence length. Accounting for the charging of binding and non-binding mandatory minimums and the application of a government-sponsored substantial assistance motion, we find that prosecutors do not differentially charge black or female defendants when the case is assigned to a Republican versus Democratic judge. These results suggest that our main findings are not solely driven by prosecutorial discretion, but rather judge-driven differences in sentencing that are associated with political ideology.

Overall, our findings suggest that judicial politics may be a source of the persistent racial and gender disparities in the federal criminal justice system and that politics may play an even larger role today under the current state of increased sentencing discretion. These results also indicate that the appointment of federal judges can have profound distributional effects on the criminal justice system given the significance of the sentencing decisions made by federal judges. The federal criminal justice system is the source of the largest and fastest growing prison population (Congressional Research

Service 2013) with federal judges making thousands of sentencing decisions a year. 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 the broad literature documenting the effects of judges' characteristics, including their political preferences, on their decisions.[1] Our paper is also related to the large literature on the presence of racial and gender disparities at various stages of the criminal justice process.[2] Like prior work, we document the presence of both racial and gender disparities in federal sentencing. However, we contribute to an understanding of the sources of these disparities by showing that judge political affiliation contributes to these disparities in a significant manner.

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

Prior to the enactment of the Federal Sentencing Guidelines, federal judges had virtually unlimited discretion to sentence within broad statutory ranges of punishment. This large degree of discretion led to concerns about sentencing disparities (e.g. inter-judge, socioeconomic, and racial) and a lack of transparency in sentencing decisions (Frankel 1973). Some members of the public also argued that during this era of indeterminate sentencing, judges endangered public safety with lenient sentencing of offenders (Tonry 2005).

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. 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, each defendant is assigned to one of 43 offense levels and to one of six

[1] See, e.g., 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, Tiede et al. 2010, Fischman and Schanzenbach 2012, Yang 2014, Kastellec 2016, 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).

[2] See, 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.

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.

In many courts, cases are randomly assigned to federal district court judges after charges are filed in order to "assure equitable distribution of caseloads and avoid judge shopping."[3] According to the Administrative Office of the US Courts, "[t]he majority of courts use some variation of a random drawing" as prescribed by local court orders.[4] Exploiting the random assignment of cases to judges, 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 criticized the adoption of the mandatory 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 a 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

[3] Administrative Office of the US Courts, Frequently Asked Questions: Federal Judges, available at http://www.uscourts.gov/faqs-filing-case.

[4] See http://www.uscourts.gov/faqs-filing-case.

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 Criminal Justice Process and Judges

In the federal criminal justice system, prosecutors have enormous discretion in charging and plea bargaining. Following arrest and the filing of initial charges, each defendant's case is assigned to a district court judge who presides over the trial, plea bargaining, and sentencing processes. Because the identity of the judge is known to prosecutors during the plea bargaining process, prosecutors can endogenously adapt their initial charges and/or plea offers to dictate the sentencing range by bargaining in the "shadow of the judge" (see, e.g. Lacasse and Payne 1999). We assess the potential contribution of prosecutors, rather than judges, to sentencing disparities in Section IV.E.

Today, over 95 percent of criminal convictions are the result of guilty pleas. Once a plea deal is reached and accepted by a judge, the case is scheduled for sentencing. To assist the judge in sentencing, a probation officer prepares a document known as the pre-sentence report (PSR) which contains detailed information on the offender's background and history, as well as facts about the crime that are either stipulated to as part of the plea agreement, or relevant to sentencing. The probation officer often conducts an interview with the defendant in order to collect information on the offense, related but uncharged criminal conduct, criminal history, personal history such as family and employment, and other issues that might be relevant to sentencing.

From this information, the probation officer also calculates the base and final offense levels, the defendant's criminal history category, and the applicable Guidelines sentencing range. Both prosecution and defense are presented with a copy of this PSR prior to the sentencing hearing and permitted an opportunity to submit objections. Absent any objection, judges often directly follow the calculation of the criminal history category and final offense level prepared in the PSR and sentence the defendant accordingly.

In the federal system, the judges that sentence criminal defendants are federal district judges that are appointed by the President and confirmed by the Senate. As of 2016, 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.

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.

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, number of dependents, 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 criminal history category.

Sentencing characteristics include the district court in which sentencing occurred (94 total) and the sentencing month and year.[5] Data is also available on whether a case is settled 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 also 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

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

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 549,609 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 in 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 empirically 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.[6] From the Federal Judicial Center, we obtain information on judge race, gender, political affiliation of appointing president, commission year, birth year and region, and prior experience as a prosecutor. In our sample from 1999-2015, there is a total of 1,398 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 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 61.8 months compared to 55.5 months by Democratic judges, indicating a large difference in sentence outcomes. In contrast, offense and demographic characteristics are qualitatively similar across Republican and Democratic judges. For example, 94.0 percent of defendants assigned to Republican judges plead guilty and 94.3 percent of defendants assigned to Democratic judges plead guilty. Similarly, 29.8 percent of defendants assigned to Republican judges

[6]The Federal Judicial Center does not collect demographic information on judges in three districts: Guam, Virgin Islands, and Northern Mariana Islands.

are black and 28.6 percent of defendants assigned to Democratic judges are black, and 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, number of dependents, U.S. citizenship status, and educational attainment. Importantly, defendants are also similar in offense level and criminal history under the Guidelines. Defendants assigned to Republican and Democratic judges have, on average, similar base offense levels, final offense levels, and criminal history category. These descriptive statistics suggest that the distribution of case and defendant observable characteristics 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 2 presents summary statistics on judge characteristics by political affiliation. In our sample, there is a total of 710 Republican judges and 688 Democratic judges. Table 2 reveals that black judges are disproportionately appointed by Democratic presidents, with 16.4 percent of Democratic judges being black compared to 4.9 percent among Republican judges. Similarly, Democratic judges are more likely to be female, with 29.4 percent being female compared to 13.9 percent among Republican judges. These differences in judge race and judge gender are statistically significant. However, Democratic and Republican judges are similar in terms of age at appointment, background experience as former prosecutors, and region of birth. Table 2 reveals that judges are approximately 50 years of age at the time of appointment, and that the majority of appointed judges were born in the Northeast or South.

In Table 3, we present additional summary statistics by cases that were decided before *Booker* and cases decided after *Booker* in January 2005. Given our sample period of 1999-2015, 217,660 cases were decided in the pre-*Booker* period and 331,949 cases were decided in the post-*Booker* period. Average sentence lengths increased substantially after *Booker*. The average pre-*Booker* sentence increased from 52.6 months to 63.2 months in the post-*Booker* period. In contrast, offender and crime characteristics are similar between the two time periods. For example, 28.2 percent of offenders were black and 13.7 percent of offenders were female in the pre-*Booker* period compared to 30.0 percent and 13.5 percent, respectively, in the post-*Booker* period. Crime severity and criminal history categories are also roughly similar across the two time periods. In the pre-*Booker* period, the average base offense level was 18.4 and the average criminal history category was 2.4. In the post-*Booker* period, the average base offense level was 18.7 and the average criminal history category was 2.6. In terms of judge characteristics, the proportion of female judges increased across the two time periods from 17.2 percent of all judges in the sample to 22.5 percent of judges. The share of Republican judges also increased from 51.2 percent to 59.4 percent.

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 are not different by offender traits such as race or gender. If there is no differential gap in case characteristics, we can attribute differences in sentence length disparities to political affiliation itself, rather than observable and unobservable case characteristics that affect sentencing outcomes. As described previously in Section I.A, cases are randomly assigned to sentencing judges in many district courts.[7]

In order to formally test this assumption, we regress three key case characteristics that determine the Guidelines sentencing range (criminal history category, base offense level, and final offense level) on an indicator for being assigned to a Republican judge versus a Democratic judge. In these specifications, we control for district court and year fixed effects and cluster our standard errors at the judge level.

Table 4 presents results testing for differential case selection by defendant race. Column 1 of Table 4 presents results testing for differential case selection of black defendants on an indicator for being assigned to a Republican judge. Column 2 presents analogous results testing for differential case selection of white defendants, and column 3 presents p-values testing for the difference in the Republican judge indicator for black and white defendants. In column 1, we find that among black defendants, Republican judges are assigned cases with slightly higher criminal history categories 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. In the last row of Table 4, we present results testing for differences in sentence length by political affiliation. We find, conditional on district court and year fixed effects, that Republican judges sentence white offenders to 3.2 months longer than Democratic judges, but sentence black offenders to 5.8 months longer than Democratic judges, with the difference (2.6 months) statistically significant at the five percent level (p-value = 0.012). Again, given that there is no relative difference by defendant race in the types of cases assigned to Republican and Democratic judges, this statistically significant difference in sentence length is likely due to judge political affiliation.

Table 5 presents an analogous set of results testing for differential case selection by defendant gender. As with the results by defendant race, we continue to 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 (column 3 of Table 5). In contrast, we continue to find significant differences in sentencing.

[7]Importantly, however, 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.

Republican judges sentence female defendants to 2.3 months longer than Democratic judges, but sentence male defendants to 4.4 months longer than Democratic judges, with the difference (2.1 months) statistically significant at the one percent level (p-value = 0.003). 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 racial and gender 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. In the previous section, we provide empirical support for our underlying assumption that the types of cases assigned to Republican versus Democratic judges do not differ by defendant race or defendant gender.

Our main specification is of the form:

$$\begin{aligned} Y_{ijtc} = {} & \beta_0 + \beta_1 * Republican_{ij} + \beta_2 * Black_i + \beta_3 * Female_i + \beta_4 * Republican_{ij} * Black_i \\ & + \beta_5 * Republican_{ij} * Female_i + \mathbf{X}_i + \gamma_t + \kappa_c + \epsilon_{ijtc} \end{aligned} \tag{1}$$

where Y_{ijtc} is the sentence length (including zeros) for defendant i sentenced by judge j in year t and district court c. $Republican_{ij}$ is an indicator variable for whether defendant i was sentenced by a Republican appointed judge j. $Black_i$ 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 versus 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.

We also estimate specifications similar to Equation (1) but controlling for a full set of judge

fixed effects (σ_j):

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

These judge fixed effects capture time-invariant unobserved differences in sentencing across judges to the extent that there are slight deviations from random case assignment. These judge fixed effects also control for differential behavior of prosecutors in response to the particular identity of the sentencing judge.

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. Because *Booker* may have been anticipated by judges, we exclude the three months before and after *Booker* in this particular specification.

IV. Results

A. Main Results

Table 6 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. In column 4, we estimate Equation (2), which adds judge fixed effects to our main specification. In all regressions, we control for the full set of defendant demographic and crime characteristics. We 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 5.9 fewer months compared to similar male offenders. Older offenders receive longer sentences than younger offenders and defendants who

are non-U.S. citizens receive longer sentences than U.S. citizens. Defendants who plead guilty, defendants who have a greater number of dependents, and defendants with higher education receive lower sentences than their respective counterparts. These results are largely consistent with the demographic differences reported in prior papers (see, e.g. Mustard 2001). Column 1 also indicates that there is no statistically 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 controlling for defendant and case observables, Republican judges give defendants an average of 1.8 months longer in prison than Democratic judges, 2.6 percent of the mean sentence length. These results are very similar with the addition of judge fixed effects in column 2, indicating that our results are robust to accounting for unobserved judge differences.

In column 3, we find that part of the racial and gender gaps in sentencing are driven by judge political affiliation. As in column 1, we find that Republican judges impose longer sentences on average relative to their Democratic counterparts. For a similar offender, Republican judges impose a 1.6 month longer sentence than Democratic judges. Our interaction of the Republican judge indicator and defendant 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 1.3 fewer months in prison compared to males, relative to Democratic judges, 25 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 and gender disparities compared to Democratic judges.

Next, we explore the potential for judges to exhibit differential sentencing behavior due to own-race or own-gender effects, rather than political affiliation per se. 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 compared to male defendants, this could explain our main finding that Republican judges exhibit smaller gender disparities than Democratic judges. Similarly, Republican judges are more likely to be white. If white judges impose higher sentence lengths for black defendants compared to white defendants, judge race may explain our previous finding that Republican judges exhibit larger racial disparities than their Democratic counterparts.

In column 1 of Table 7, 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 indicate that these interactions are relatively small and statistically insignificant, suggesting that judge race and gender play a limited role in explaining both racial and gender disparities in sentencing. In column 2 of Table 7, 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 race and gender interactions, there is a large and significant effect of judge political affiliation on racial and gender gaps in sentencing. As before, Republican judges

exhibit larger racial and gender disparities compared to Democratic judges, and the magnitudes of these effects are almost identical to those in our main results (Table 6). These findings indicate that our main findings are due to judge ideology as proxied by the political affiliation of the appointing president.

Appendix Table 1 presents a series of robustness checks for these main results. For example, we test the robustness of our results by excluding Hispanic defendants, excluding immigration offenses which often carry no prison sentence, excluding the small subset of life sentences, and controlling for base offense level instead of final offense level. Results are similar across all alternative specifications, with Republican judges exhibiting larger racial and gender disparities relative to Democratic judges within the same court.

B. Increased Judicial Discretion

In this next section, we further explore whether racial and gender disparities driven by judge political affiliation are the result of judge-specific preferences. Specifically, if these disparities in sentencing 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 January 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*. Indeed, the rate of departures from the Guidelines-recommended range increased sharply in the aftermath of *Booker* (USSC 2012, Yang 2014).

Table 8 presents these results. In column 1 of Table 8, 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) - a differences-in-differences estimate. Recall that because judges may have anticipated *Booker*, we remove any anticipation effects by excluding from this specification cases that were sentenced within three months of the *Booker* decision. In all specifications, we control for the full set of defendant demographic and crime characteristics, in addition to fixed effects for each offense level and criminal history category combination. Specifications also include district court fixed effects, sentencing year fixed effects, and a full set of judge fixed effects. Standard errors are clustered at the judge level.

In our sample of cases decided before *Booker* (column 1), we find that black defendants are sentenced to 2.6 months longer than observably similar white defendants. However, we find limited evidence that Republican and Democratic judges exhibit different racial gaps in sentencing. The interaction between our Republican judge indicator and defendant race is statistically insignificant in this pre-*Booker* period. In contrast, Republican judges exhibit larger gender disparities than Democratic judges, issuing sentences to female defendants that are 0.92 months lesser than male

defendants. In the sample of cases decided after *Booker* (column 2), racial disparities by judge political affiliation are much larger and become highly statistically significant. According to column 2, 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*. Gender disparities by political affiliation are also larger and highly significant after *Booker*, with Republican judges sentencing females to 1.7 months less than males compared to Democratic judges, 34 percent of the average gender gap in sentence length. These results suggest that disparities by judge political affiliation are larger after judges are granted more direction.

To more directly test this hypothesis, we combine all our cases and provide differences-in-differences estimates in column 3. Column 3 indicates that racial disparities increased in general after *Booker*. After *Booker*, black defendants are sentenced to 0.98 months longer in prison than similar white defendants. We also find that after *Booker*, Republican judges give longer sentences to all offenders compared to Democratic judges. Specifically, after *Booker*, Republican judges give all defendants 1.8 months longer in prison compared to Democratic judges. In addition, the interaction of *Booker*, judge political affiliation, and defendant race indicates that post-*Booker*, racial disparities by political affiliation expanded. After *Booker*, black defendants assigned to Republican judges receive an *additional* 1.3 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 more limited evidence that differences in gender disparities by political affiliation changed after *Booker*. Throughout the entire sample period, Republican judges consistently exhibited larger 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 (see Epstein et al. 1998, Kaheny et al. 2008). 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 9 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 3.1 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 1.9 months, and by more than ten years of experience, the difference becomes statistically insignificant at 0.7 months. 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 2.4 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 1.1 months, and by more than ten years, the difference remains at 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.[8]

Recall that we find that larger differences in racial gaps by political affiliation emerged primarily after judges were granted more discretion after *Booker* (see Table 8). The extent to which judge experience affects sentencing behavior may also be affected 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 10 presents these results. In the subsample of cases decided prior to *Booker*, we find no statistically significant differences in racial disparities by political affiliation, regardless of years of experience. However, these racial disparities by political affiliation are significant among cases decided after *Booker*, although some of the differences across judges converges with experience. For example, in columns 5 through 7, we find that in the first five years of tenure, Republican judges sentence black defendants to 3.0 months longer than similar whites compared to Democratic judges, which decreases to 2.4 months in the five to ten years of experience, and further decreases to 1.4 months for judges with ten or more years of experience, although the estimate remains statistically significant. We find similar patterns with respect to gender disparities by political affiliation, with most of the disparities emerging post-*Booker* and remaining significant with judge experience, although Republican and Democratic judges do converge in their sentencing with more time on the bench. 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 convergence in sentencing outcomes when judges are granted more discretion, potentially because the Guidelines have less of a constraining effect when

[8]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. In unreported results, we also estimate our results using a balanced sample where we limit judges to only those we observe for ten years or more. We continue to find that differences in racial and gender disparities in sentencing by judge political affiliation became smaller as judges become more experienced.

they became advisory after *Booker*.

D. Region of Birth

The previous results indicate that part of the racial and gender gaps in sentencing are 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 judicial experience. In this section, we explore another potential mediating mechanism that may explain disparities by judge political affiliation: intensity of political preferences as reflected by region of birth.

Historically, the Midwest and South have voted for Republican candidates in presidential elections and the West and Northeast have voted for Democratic candidates. In Table 11, we present our main results for all cases, and split by pre- and post-*Booker* periods. Among the group of Republican judges, we distinguish between judges born in the West/Northeast from judges born in the Midwest/South. Strikingly, we find that racial and gender disparities by political affiliation are the largest among Republican judges both in the Midwest/South relative to Democratic judges. For Republican judges born in the Midwest/South, the average racial gap in sentence length is 2.4 months larger than for Democratic judges within the same court, with the difference being larger post-*Booker*. These results are consistent with Alesina and La Ferrara (2014) who find that racial bias in capital sentencing is driven exclusively by capital sentences from Southern states. We find a similar effect on gender gaps in sentence length, with differences by political affiliation primarily driven by Republican judges born in the Midwest/South. In contrast, we find statistically insignificant differences in both racial and gender disparities for Republican judges born in the West/Northeast and Democratic judges. These results indicate that region of birth, which may reflect the intensity of political preferences and ideology, play an important role in explaining sentencing disparities by political affiliation.

E. Accounting for Prosecutorial Discretion

Because prosecutors have an enormous amount of discretion in the criminal justice system, we also consider whether our main findings can be accounted for by differential decisions made by prosecutors that might affect sentence length. In particular, we consider three important decision margins made by prosecutors. First, we assess whether a mandatory minimum applies at sentencing given that this decision exhibits large racial disparities (Rehavi and Starr 2014). Second, we assess whether a mandatory minimum binds such that it exceeds the lower end of the Guidelines recommended range. Finally, we assess whether a prosecutor has applied a substantial assistance departure on the basis of significant cooperation of the defendant with the government, a decision that could result in a sentence below an applicable mandatory minimum (see Fischman and Schanzenbach 2012, Yang 2015).

Appendix Table 2 regresses each of these three decisions on the full set of defendant demographic and crime characteristics, and our interaction between defendant race/gender and judge political

affiliation. Consistent with prior research, we find that prosecutors are significantly more likely to charge and apply mandatory minimums (binding and non-binding) against observably similar black defendants compared to white offenders. In contrast, prosecutors are significantly less likely to offer substantial assistance motions to black defendants relative to white defendants, while they are more likely to offer substantial assistance motions to female defendants relative to male defendants. Importantly, however, we find no evidence that prosecutorial charging and plea bargaining decisions differentially affect defendants by judge political affiliation. In all specifications, the interactions between judge political affiliation, defendant race, and defendant gender are statistically and economically zero. A qualitatively similar set of results accounting for prosecutorial discretion before and after *Booker* is presented in Appendix Table 3.

Finally, Appendix Tables 4 and 5 present our main results controlling for the effects of prosecutorial discretion, in the aggregate and before and after *Booker*. In each specification, we control for the relevant decision margin and its full set of interactions with defendant race and gender and judge political affiliation. We continue to find that Republican judges sentence black defendants to longer prison terms than whites compared to Democratic judges, and that Republican judges also sentence female defendants to shorter prison terms than males compared to Democratic judges, particularly after judges were granted more discretion. These results suggest that our main findings are not solely driven by prosecutorial discretion, but rather judge-specific differences in sentencing that are associated with political ideology.

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 to 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 a full set of sentencing judge fixed effects. Moreover, our main findings are not solely driven by prosecutorial discretion, but rather judge-driven differences associated with political ideology.

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 were given more discretion after the mandatory Guidelines were rendered advisory. These results suggest that our main findings may be driven by judge-specific preferences that are correlated with political affiliation, and that these preferences are more likely to be revealed when judges are given greater discretion. 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 much of

the disparities by political affiliation are driven by Republican judges born in the Midwest/South, regions most associated with a conservative ideology.

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. The precise reasons why Republican and Democratic judges treat defendants differently by race or gender remain unknown but are consistent with bias against black defendants and bias in favor of female defendants. For instance, some have suggested in the context of defendant gender, that judges may sentence females more leniently than males because of a perception that women are mere accessories to male partners, or that women are primary caregivers to children (see Goulette et al. 2015, Starr 2015). Our results suggest that a judge's political ideology may affect how they view the dangerousness or blameworthiness of different defendants.

Our results also have important implications for the appointments process of federal judges. 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.[9] 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.[10] 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.

[9] See, e.g., https://fas.org/sgp/crs/misc/R43058.pdf.

[10] 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: Defendant Summary Statistics by Judge Political Affiliation

	(1) Republican Judges	(2) Democratic Judges	(3) Difference
Sentence Length (in Months)	61.759	55.529	6.230
Guilty Plea	0.940	0.943	-0.003
Offender Black	0.298	0.286	0.011
Offender Female	0.137	0.135	0.002
Offender Age	36.019	36.094	-0.076
Offender # of Dependents	1.532	1.531	0.000
Offender Non-Citizen	0.232	0.261	-0.029
Less than HS Degree	0.410	0.419	-0.009
HS Degree	0.336	0.325	0.012
Some College	0.185	0.183	0.002
College	0.069	0.073	-0.005
Base Offense Level	18.796	18.252	0.544
Final Offense Level	20.451	19.989	0.462
Criminal History Category	2.570	2.499	0.070
N	308,570	241,039	549,609

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

Table 2: Judge Characteristics by Judge Political Affiliation

	(1) Republican Judges	(2) Democratic Judges	(3) Difference	(4) p-value
Judge Black	0.049	0.164	-0.115	0.000
Judge Female	0.139	0.294	-0.154	0.000
Age at Appointment	49.616	50.631	-1.014	0.003
Former Prosecutor	0.068	0.057	0.011	0.399
Born in the Northeast	0.269	0.269	0.000	0.996
Born in the West	0.135	0.135	0.000	0.998
Born in the South	0.332	0.317	0.016	0.536
Born in the Midwest	0.224	0.203	0.020	0.351
N	710	688	1,398	

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

Table 3: Summary Statistics: Before and After *Booker*

	(1) Before *Booker*	(2) After *Booker*	(3) Difference
Sentence Length (in Months)	52.634	63.220	-10.587
Guilty Plea	0.950	0.936	0.013
Offender Black	0.282	0.300	-0.018
Offender Female	0.137	0.135	0.002
Offender Age	34.752	36.900	-2.147
Offender # of Dependents	1.534	1.530	0.004
Offender Non-Citizen	0.277	0.224	0.054
Less than HS Degree	0.451	0.389	0.062
HS Degree	0.311	0.345	-0.034
Some College	0.174	0.191	-0.017
College	0.064	0.075	-0.011
Base Offense Level	18.379	18.674	-0.294
Final Offense Level	19.365	20.827	-1.462
Criminal History Category	2.434	2.608	-0.174
Judge Black	0.090	0.091	-0.000
Judge Female	0.172	0.225	-0.053
Judge Age	60.183	62.818	-2.635
Judge Republican	0.512	0.594	-0.082
Former Prosecutor	0.057	0.068	-0.011
Born in the Northeast	0.215	0.203	0.012
Born in the West	0.134	0.135	-0.001
Born in the South	0.390	0.382	0.008
Born in the Midwest	0.216	0.224	-0.008
N	217,660	331,949	549,609

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

Table 4: Selection by Defendant Race
Regressing Different Case Characteristics on Judge Political Affiliation

	(1) Black Offender	(2) White Offender	(3) p-value
Criminal History Category	0.053	0.037	0.454
	(0.020)	(0.011)	
Base Offense Level	0.503	0.322	0.263
	(0.158)	(0.117)	
Final Offense Level	0.420	0.254	0.236
	(0.138)	(0.105)	
Sentence Length (in Months)	5.844	3.204	0.012
	(1.261)	(0.735)	
N	160,931	388,678	549,609

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 court and sentencing year fixed effects. Standard errors are clustered at the judge level.

Table 5: Selection by Defendant Gender
Regressing Different Case Characteristics on Judge Political Affiliation

	(1) Female Offender	(2) Male Offender	(3) p-value
Criminal History Category	0.027	0.042	0.389
	(0.011)	(0.013)	
Base Offense Level	0.341	0.394	0.752
	(0.179)	(0.119)	
Final Offense Level	0.256	0.331	0.514
	(0.120)	(0.110)	
Sentence Length (in Months)	2.302	4.375	0.003
	(0.609)	(0.891)	
N	74,583	475,026	549,609

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 court and sentencing year fixed effects. Standard errors are clustered at the judge level.

Table 6: Main Results on Sentence Length

	(1)	(2)	(3)	(4)
Offender Black	3.484***	3.650***	2.670***	2.837***
	(0.183)	(0.173)	(0.310)	(0.287)
Offender Female	-5.870***	-5.898***	-5.116***	-5.054***
	(0.141)	(0.139)	(0.245)	(0.242)
Offender Age	0.256***	0.266***	0.257***	0.267***
	(0.028)	(0.027)	(0.028)	(0.027)
Offender Age Sq.	-0.004***	-0.004***	-0.004***	-0.004***
	(0.000)	(0.000)	(0.000)	(0.000)
Guilty Plea	-23.090***	-22.977***	-23.092***	-22.977***
	(0.533)	(0.531)	(0.533)	(0.532)
Offender # of Dependents	-0.215***	-0.217***	-0.216***	-0.217***
	(0.033)	(0.032)	(0.033)	(0.032)
Offender Non-Citizen	3.619***	3.783***	3.615***	3.782***
	(0.208)	(0.200)	(0.209)	(0.200)
HS Degree	-1.167***	-1.144***	-1.168***	-1.147***
	(0.126)	(0.125)	(0.126)	(0.125)
Some College	-2.664***	-2.638***	-2.661***	-2.637***
	(0.148)	(0.146)	(0.148)	(0.146)
College	-4.699***	-4.545***	-4.704***	-4.551***
	(0.220)	(0.217)	(0.220)	(0.217)
Judge Black	-0.417		-0.375	
	(0.465)		(0.464)	
Judge Female	0.187		0.195	
	(0.347)		(0.346)	
Judge Age	-0.104		-0.106	
	(0.134)		(0.133)	
Judge Age Sq.	0.001		0.001	
	(0.001)		(0.001)	
Judge Rep	1.788***		1.556***	
	(0.297)		(0.310)	
Judge Rep x Off Black			1.421***	1.420***
			(0.440)	(0.402)
Judge Rep x Off Female			-1.329***	-1.488***
			(0.356)	(0.352)
Judge FE?	No	Yes	No	Yes
N	527,044	527,012	527,044	527,012
r2	0.787	0.791	0.787	0.791

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

Table 7: Additional Results by Judge Race and Gender

	(1) Race-Gender	(2) Race-Gender + Political Affiliation
Offender Black	3.748***	2.927***
	(0.188)	(0.301)
Offender Female	-5.991***	-5.112***
	(0.166)	(0.274)
Offender Age	0.266***	0.267***
	(0.027)	(0.027)
Offender Age Sq.	-0.004***	-0.004***
	(0.000)	(0.000)
Guilty Plea	-22.977***	-22.977***
	(0.531)	(0.531)
Offender # of Dependents	-0.217***	-0.217***
	(0.032)	(0.032)
Offender Non-Citizen	3.782***	3.781***
	(0.200)	(0.200)
HS Degree	-1.144***	-1.147***
	(0.125)	(0.125)
Some College	-2.638***	-2.637***
	(0.146)	(0.146)
College	-4.548***	-4.553***
	(0.217)	(0.217)
Judge Black x Off Black	-0.951	-0.531
	(0.662)	(0.660)
Judge Female x Off Female	0.451	0.220
	(0.430)	(0.440)
Judge Rep x Off Black		1.357***
		(0.401)
Judge Rep x Off Female		-1.464***
		(0.359)
N	527,012	527,012
r2	0.791	0.791

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is sentence length in months. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.

Table 8: Sentencing Before and After *Booker*

	(1) Before *Booker*	(2) After *Booker*	(3) Diff-in-Diff
Offender Black	2.563***	2.989***	2.252***
	(0.358)	(0.362)	(0.370)
Offender Female	-5.308***	-4.947***	-4.870***
	(0.317)	(0.311)	(0.322)
Offender Age	0.154***	0.343***	0.267***
	(0.035)	(0.038)	(0.027)
Offender Age Sq.	-0.002***	-0.004***	-0.004***
	(0.000)	(0.000)	(0.000)
Guilty Plea	-24.668***	-21.782***	-22.949***
	(0.784)	(0.611)	(0.531)
Offender # of Dependents	-0.131***	-0.274***	-0.227***
	(0.050)	(0.041)	(0.033)
Offender Non-Citizen	3.274***	4.037***	3.800***
	(0.261)	(0.252)	(0.202)
HS Degree	-0.788***	-1.356***	-1.156***
	(0.180)	(0.168)	(0.127)
Some College	-2.435***	-2.667***	-2.625***
	(0.210)	(0.201)	(0.148)
College	-3.024***	-5.282***	-4.577***
	(0.261)	(0.297)	(0.222)
Judge Rep x Off Black	0.569	1.999***	0.577
	(0.515)	(0.495)	(0.524)
Judge Rep x Off Female	-0.921**	-1.688***	-0.904**
	(0.442)	(0.435)	(0.444)
Booker x Off Black			0.985**
			(0.460)
Booker x Off Female			-0.339
			(0.399)
Booker x Judge Rep			1.777***
			(0.451)
Booker x Judge Rep x Off Black			1.274**
			(0.641)
Booker x Judge Rep x Off Female			-0.821^{t}
			(0.539)
N	200,826	311,975	512,832
r2	0.803	0.786	0.791

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is sentence length in months. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.

Table 9: Sentencing by Judge Tenure

	(1)	(2)	(3)
	< 5 Years	5-10 Years	≥ 10 Years
Offender Black	2.361***	2.883***	3.084***
	(0.398)	(0.458)	(0.391)
Offender Female	-4.556***	-5.138***	-5.377***
	(0.328)	(0.405)	(0.329)
Offender Age	0.196***	0.339***	0.266***
	(0.053)	(0.052)	(0.039)
Offender Age Sq.	-0.003***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.000)
Guilty Plea	-21.307***	-23.840***	-23.028***
	(0.859)	(0.881)	(0.718)
Offender # of Dependents	-0.111*	-0.261***	-0.241***
	(0.060)	(0.063)	(0.046)
Offender Non-Citizen	3.207***	4.173***	3.752***
	(0.301)	(0.370)	(0.274)
HS Degree	-1.146***	-0.696***	-1.304***
	(0.243)	(0.249)	(0.163)
Some College	-2.148***	-2.818***	-2.722***
	(0.285)	(0.278)	(0.203)
College	-3.984***	-4.357***	-4.753***
	(0.367)	(0.384)	(0.303)
Judge Rep x Off Black	3.058***	1.862***	0.716
	(0.673)	(0.692)	(0.514)
Judge Rep x Off Female	-2.377***	-1.054*	-1.184***
	(0.553)	(0.586)	(0.454)
N	111,654	128,746	286,575
r2	0.809	0.793	0.787

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is sentence length in months. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.

Table 10: Sentencing by Judge Tenure - Before and After *Booker*

	(1)	(2)	(3)	(4)	(5)	(6)
	Before *Booker*			After *Booker*		
	< 5	5-10	≥ 10	< 5	5-10	≥ 10
Offender Black	2.338***	2.946***	2.378***	2.556***	2.933***	3.176***
	(0.468)	(0.549)	(0.693)	(0.674)	(0.779)	(0.446)
Offender Female	-4.857***	-5.672***	-5.254***	-4.454***	-4.721***	-5.346***
	(0.374)	(0.524)	(0.645)	(0.623)	(0.636)	(0.379)
Offender Age	0.177***	0.181***	0.129**	0.249***	0.459***	0.338***
	(0.068)	(0.065)	(0.054)	(0.076)	(0.076)	(0.051)
Offender Age Sq.	-0.003***	-0.003***	-0.002***	-0.003***	-0.006***	-0.005***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Guilty Plea	-21.804***	-23.414***	-26.614***	-20.624***	-23.747***	-21.250***
	(1.233)	(1.244)	(1.233)	(1.159)	(1.175)	(0.751)
Offender # of Dep.	-0.036	-0.158*	-0.174**	-0.208**	-0.352***	-0.272***
	(0.079)	(0.092)	(0.076)	(0.089)	(0.085)	(0.055)
Offender Non-Citizen	2.802***	3.471***	3.453***	3.630***	4.778***	3.808***
	(0.386)	(0.539)	(0.377)	(0.477)	(0.501)	(0.332)
HS Degree	-1.286***	-0.357	-0.797***	-1.121***	-0.896**	-1.580***
	(0.315)	(0.351)	(0.261)	(0.364)	(0.347)	(0.217)
Some College	-2.209***	-2.334***	-2.535***	-1.964***	-3.132***	-2.735***
	(0.387)	(0.377)	(0.317)	(0.411)	(0.414)	(0.268)
College	-3.774***	-2.552***	-2.839***	-4.029***	-5.687***	-5.504***
	(0.474)	(0.482)	(0.390)	(0.546)	(0.571)	(0.390)
Judge Rep x Off Black	1.726	0.392	0.505	2.993***	2.382**	1.369**
	(1.238)	(0.966)	(0.768)	(0.883)	(0.996)	(0.632)
Judge Rep x Off Female	-2.297***	-0.083	-1.000	-2.294***	-1.139	-1.544***
	(0.865)	(0.778)	(0.748)	(0.786)	(0.828)	(0.551)
N	49,070	57,354	94,385	59,010	68,066	184,873
r2	0.814	0.802	0.803	0.806	0.789	0.782

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is sentence length in months. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.

Table 11: Sentencing by Judge Birth Region

	(1) All	(2) Before *Booker*	(3) After *Booker*
Offender Black	2.842***	2.567***	2.996***
	(0.287)	(0.358)	(0.362)
Offender Female	-5.052***	-5.308***	-4.945***
	(0.242)	(0.317)	(0.311)
Offender Age	0.269***	0.157***	0.346***
	(0.027)	(0.035)	(0.038)
Offender Age Sq.	-0.004***	-0.002***	-0.005***
	(0.000)	(0.000)	(0.000)
Guilty Plea	-22.972***	-24.665***	-21.774***
	(0.531)	(0.784)	(0.611)
Offender # of Dependents	-0.221***	-0.133***	-0.278***
	(0.032)	(0.050)	(0.041)
Offender Non-Citizen	3.793***	3.279***	4.051***
	(0.200)	(0.261)	(0.251)
HS Degree	-1.138***	-0.781***	-1.349***
	(0.125)	(0.180)	(0.168)
Some College	-2.636***	-2.433***	-2.666***
	(0.146)	(0.210)	(0.201)
College	-4.563***	-3.029***	-5.299***
	(0.217)	(0.261)	(0.297)
Judge Rep Born in West/Northeast x Off Black	-0.752	-1.010^{t}	-0.430
	(0.530)	(0.700)	(0.703)
Judge Rep Born in Midwest/South x Off Black	2.418***	1.334**	3.079***
	(0.436)	(0.569)	(0.528)
Judge Rep Born in West/Northeast x Off Female	0.186	0.404	0.264
	(0.455)	(0.574)	(0.570)
Judge Rep Born in Midwest/South x Off Female	-2.322***	-1.622***	-2.626***
	(0.392)	(0.491)	(0.480)
N	527,012	200,826	311,975
r2	0.791	0.803	0.787

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is sentence length in months. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.

Table A1: Robustness Checks for Main Results

	(1) No Hispanics	(2) No Immig Cases	(3) No Life Sentences	(4) (1)-(3)	(5) Base Off. Level + (1)-(3)
Offender Black	3.577***	2.955***	2.798***	3.541***	3.177***
	(0.306)	(0.292)	(0.283)	(0.310)	(0.383)
Offender Female	-4.920***	-5.233***	-5.026***	-4.920***	-9.176***
	(0.279)	(0.253)	(0.241)	(0.281)	(0.348)
Offender Age	0.244***	0.266***	0.238***	0.216***	0.438***
	(0.035)	(0.029)	(0.027)	(0.035)	(0.042)
Offender Age Sq.	-0.004***	-0.004***	-0.003***	-0.003***	-0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Guilty Plea	-24.233***	-24.138***	-22.502***	-24.232***	-60.139***
	(0.603)	(0.549)	(0.523)	(0.600)	(0.774)
Offender #of Dependents	-0.360***	-0.239***	-0.221***	-0.375***	-0.253***
	(0.043)	(0.037)	(0.032)	(0.044)	(0.056)
Offender Non-Citizen	2.295***	4.185***	3.762***	2.506***	1.449***
	(0.305)	(0.215)	(0.195)	(0.319)	(0.441)
HS Degree	-0.634***	-1.234***	-1.188***	-0.684***	-0.162
	(0.162)	(0.137)	(0.125)	(0.165)	(0.209)
Some College	-1.867***	-2.762***	-2.637***	-1.912***	-0.774***
	(0.179)	(0.157)	(0.145)	(0.182)	(0.226)
College	-3.748***	-4.669***	-4.340***	-3.515***	-1.225***
	(0.246)	(0.230)	(0.205)	(0.236)	(0.292)
Judge Rep x Off Black	1.604***	1.339***	1.464***	1.664***	1.899***
	(0.432)	(0.404)	(0.398)	(0.433)	(0.562)
Judge Rep x Off Female	-1.698***	-1.587***	-1.501***	-1.744***	-2.355***
	(0.402)	(0.368)	(0.349)	(0.403)	(0.516)
N	342,611	465,206	524,170	334,007	333,392
r2	0.785	0.786	0.781	0.775	0.631

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is sentence length in months. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects. In column 1, we exclude Hispanic defendants. In column 2, we exclude immigration cases. In column 3, we exclude life sentences. In column 4, we add all exclusions from columns 1-3. In column 5, we add all exclusions from columns 1-3 and control for base offense level instead of final offense level.

Table A2: Prosecutorial Discretion

	(1) Mand Min (MM)	(2) Binding Mand Min (BMM)	(3) Sub Assistance (SA)
Offender Black	0.036***	0.019***	-0.027***
	(0.003)	(0.002)	(0.003)
Offender Female	0.001	0.007***	0.049***
	(0.003)	(0.002)	(0.003)
Jud Rep x Off Black	0.004	0.003	0.002
	(0.004)	(0.003)	(0.004)
Jud Rep x Off Female	-0.002	-0.003	0.007^{t}
	(0.003)	(0.003)	(0.004)
N	470,221	470,766	465,448
r2	0.566	0.337	0.177

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. MM is an indicator for any mandatory minimum. BMM is an indicator for any binding mandatory minimum, defined as if the mandatory minimum partially binds over the range set by the Guidelines recommended cell. SA is an indicator for a government-sponsored substantial assistance motion. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.

Table A3: Prosecutorial Discretion Before and After *Booker*

	(1)	(2)	(3)	(4)	(5)	(6)
	MM		BMM		SA	
	Before	After	Before	After	Before	After
Offender Black	0.033***	0.036***	0.015***	0.021***	-0.026***	-0.026***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.003)
Offender Female	-0.007*	0.005^{t}	0.007*	0.007**	0.051***	0.049***
	(0.004)	(0.004)	(0.004)	(0.003)	(0.005)	(0.004)
Judge Rep x Off Black	-0.004	0.007^{t}	-0.008*	0.008**	-0.006	0.004
	(0.005)	(0.005)	(0.005)	(0.004)	(0.006)	(0.004)
Judge Rep x Off Female	0.001	-0.005	-0.001	-0.004	0.012*	0.004
	(0.005)	(0.004)	(0.005)	(0.004)	(0.007)	(0.005)
N	151,145	319,047	151,283	319,455	146,741	318,678
r2	0.650	0.538	0.417	0.312	0.192	0.176

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. MM is an indicator for any mandatory minimum. BMM is an indicator for any binding mandatory minimum, defined as if the mandatory minimum partially binds over the range set by the Guidelines recommended cell. SA is an indicator for a government-sponsored substantial assistance motion. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.

Table A4: Sentencing Controlling for Prosecutorial Discretion

	(1)	(2)	(3)
Offender Black	-0.694***	0.588**	3.393***
	(0.252)	(0.273)	(0.314)
Offender Female	-1.671***	-2.870***	-5.706***
	(0.174)	(0.229)	(0.241)
Judge Rep x Off Black	0.774**	1.186***	1.723***
	(0.328)	(0.370)	(0.454)
Judge Rep x Off Female	-0.551**	-1.165***	-1.432***
	(0.234)	(0.327)	(0.359)
Controls	MM	BMM	SA
N	469,781	470,325	465,014
r2	0.806	0.805	0.813

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is sentence length in months. MM is an indicator for any mandatory minimum. BMM is an indicator for any binding mandatory minimum, defined as if the mandatory minimum partially binds over the range set by the Guidelines recommended cell. SA is an indicator for a government-sponsored substantial assistance motion. Column 1 adds a full set of interactions between MM, offender gender and race, and judge political affiliation. Column 2 adds a full set of interactions between BMM, offender gender and race, and judge political affiliation. Column 3 adds a full set of interactions between SA, offender gender and race, and judge political affiliation. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.

Table A5: Sentencing Before and After *Booker* Controlling for Prosecutorial Discretion

	(1) Before	(2) After	(3) Before	(4) After	(5) Before	(6) After
Offender Black	-0.246	-0.922***	0.774**	0.364	3.540***	3.186***
	(0.353)	(0.289)	(0.375)	(0.321)	(0.450)	(0.359)
Offender Female	-1.518***	-1.727***	-3.360***	-2.639***	-6.109***	-5.451***
	(0.242)	(0.233)	(0.355)	(0.281)	(0.287)	(0.312)
Judge Rep x Off Black	0.152	1.113***	0.593	1.548***	1.076*	2.059***
	(0.462)	(0.373)	(0.529)	(0.430)	(0.621)	(0.503)
Judge Rep x Off Female	-0.537*	-0.490^{t}	-0.527	-1.445***	-0.794*	-1.750***
	(0.323)	(0.305)	(0.462)	(0.392)	(0.429)	(0.435)
Controls	MM	MM	BMM	BMM	SA	SA
N	151,008	318,744	151,146	319,151	146,610	318,375
r2	0.815	0.806	0.815	0.804	0.839	0.806

Note: Standard errors in parentheses are clustered by judge. Stars denote the level of statistical significance ^{t} $p < 0.15$, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is sentence length in months. MM is an indicator for any mandatory minimum. BMM is an indicator for any binding mandatory minimum, defined as if the mandatory minimum partially binds over the range set by the Guidelines recommended cell. SA is an indicator for a government-sponsored substantial assistance motion. Columns 1-2 add a full set of interactions between MM, offender gender and race, and judge political affiliation. Columns 3-4 add a full set of interactions between BMM, offender gender and race, and judge political affiliation. Columns 5-6 add a full set of interactions between SA, offender gender and race, and judge political affiliation. We control for judge, primary offense type, final offense level x criminal history category, district court, and sentencing year dummies. All results control for judge fixed effects.