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The Effects of Punishment Discontinuities

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Abstract

Research on criminal sentencing under guidelines suggests that "within cell" variation in outcomes is swamped by "between cell" differences. Thus, understanding the processes that determine how a case ends up in a particular cell, and the scope for discretion in that decision, is important for understanding criminal justice outcomes. We find evidence that the location in the sentencing grid of a case is of primary importance in determining the probability of incarceration and length of sentence. We also find evidence consistent with strategic assignment of cases to cells within the sentencing grid as well as evidence of strategic reactions to discontinuous jumps in the severity of punishment. Finally, we find evidence that suggests that judges and prosecutors differ in their beliefs about appropriate punishments as judges are more likely to formally depart from the sentencing guidelines at the point where punishment severity dramatically changes. This is consistent with judges holding different beliefs about the appropriateness of the punishments assigned to particular levels of criminal severity, and consistent with judges holding different beliefs about the appropriateness of assigning a particular case or defendant to a given level of criminal severity.

I. Introduction

Sentencing outcomes result from the interactions of several parties -- judges and prosecutors, of course, but also defendants and defense counsel, all operating within institutional environments shaped by legislation, workload and overcrowding pressures, and budgetary and electoral considerations. A long research literature aims to parse out the effects of individual decision-makers from the effects of the institutional environments in which they work, with increasing study of the impacts of the institutions themselves.[1] This shift in attention may reflect a growing appreciation that individual-level discrimination may not be the primary driver of socially problematic outcomes such as the U.S.'s outlier rate of incarceration and its racial disproportionality. Moreover, reforms to the institutional environment may more efficient or effective at reducing these values than, for example, the re-training of law enforcement professionals.

Nearly all criminal cases are resolved by plea negotiation rather than following a criminal trial in front of a judge or jury. In these negotiations, prosecutors have much discretion. Yet, in theory, bargaining should take place in the shadow of the judge (though there is much evidence that multiple factors influence outcomes, as in Bibas 2004, Bushway & Redlich 2011, and LaCasse & Payne 1999). In the jurisdiction we study and many others, statutes make clear that the sentencing court is free to either accept or reject any plea agreement reached by the prosecutor and the defense. Thus, prosecutors should take into account the sentencing preferences of the judge during the bargaining process; for example, a prosecutor may have to arrange a more moderate sentence when the presiding judge tends to be lenient in order to avoid a plea rejection. Several recent studies have findings that substantiate the prospective

[1] Much of the estimation of judicial discretion is included in related lines of research, such as that which was focused on the development and evaluation of sentencing guidelines (e.g., Frase 1994, Souryal & Wellford 2012). Numerous studies document racial and gender disparities (see Spohn 2015 for a review), some of which attribute responsibility to judges, some to the "system" overall. More recently, sentencing research has expanded to consider procedural matters (Fischman & Schanzenbach 2011, Miles 2012); career concerns (Ashworth 2012, Berdejo & Yuchtman 2013, Glaeser et al. 2000, Boylan & Long 2005); and judge and prosecutor elections (Gordon & Huber 2007, Lim 2013, McCannon 2013, and Park 2016); and the sentencing grid itself (Bushway & Piehl 2011, Bushway & Forst 2013, Starr & Rahavi 2013, and Ulmer et al. 2014).

judge's influence on the sentencing process. Abrams, Bertrand, & Mullainathan (2012) finds evidence of considerable heterogeneity in judicial preferences for punitive sentencing; in Cook County, IL, being randomly assigned to 10th versus 90th percentile judge can increase the likelihood of incarceration for black offenders by 18 percentage points. Mueller-Smith (2015) finds that judges exhibit not only heterogeneous but non-monotonic sentencing across different types of crimes. That judges can reject plea agreements and exhibit variable preferences raise the possibility that judges may exert substantial indirect influence in the bargaining process.

Sentencing guidelines that map criminal history and the seriousness of the current criminal conduct are one approach to structuring discretion in order to promote uniformity in punishments across offenders. One feature of these grids is that the apparent preference for simplicity in their structure (2 dimensions with a small number of categorical measures of criminal history and crime severity, as well as round numbers for recommended sentence lengths) leads to nonlinearity in sentencing outcomes as a function of the inputs (Bushway & Piehl 2001, Engen & Gainey 2000, Mustard 2001). In some places, the nonlinearity takes the form of dramatic jumps in sentencing severity for linear or minor increases in the elements of the crime.

We focus in this paper on one such discontinuity -- the part of the Kansas sentencing grid that shifts from presuming a probation sentence to presuming a prison term. This in/out margin deserves focused attention for several reasons. Crimes at the lower severity part of the grid are numerous yet receive little systematic analysis in the research literature. From an offender's perspective, whether the sentence is prison or probation potentially impacts housing, employment, and other outcomes. From a policy perspective, shifts in which crimes are above or below this line is a prime topic for legislators anxious to reduce prison budgets or correct for over-criminalization. Finally, from a research perspective, the punishment discontinuity at this margin usefully provides quasi-experimental variation which can identify causal impacts of criminal sentencing.

Kansas is generally representative of national trends in incarceration and sentencing (BJS 2006). In addition, the institutional features of random assignment of cases to judges and cross-district variation in other institutions make it a useful setting for empirical analysis. We use more than a decade's worth of detailed data from the Kansas Sentencing Commission on the universe of convicted felons to examine the discontinuity in the criminal offense dimension (as one moves from criminal offenses that are deemed lower to higher severity levels, the presumptive punishment changes from presumptive probation to presumptive incarceration) and in the criminal history dimension (as one moves from lower to higher rankings of criminal history, there is likewise a discontinuous jump in the presumptive punishment).

The dramatic changes in sentencing across the grid have the potential to affect the behavior of individual defendants (or potential defendants), prosecutors, and judges. Defendants may change their behavior when they are poised at the threshold of a potential dramatic increase in punishment, for example by not recidivating when their criminal history would be such as to lead them to face a dramatic increase in punishment upon their next conviction, or by requesting private counsel, or by refusing to plea. Prosecutors (and police) may use their discretion to charge defendants with different types of activities endogenously based on their perception of warranted punishment. Finally, judges may use their discretion to deviate from the recommended sentences, and they may be more or less likely to do that depending on whether the crime in question is near a threshold of discontinuous change in punishments. Because we do not have information on the sequence of discretionary decisions made by each actor, the precision of our inference will be limited in situations in which multiple actors have incentive to anticipate or react to the decisions of others.

The paper proceeds as follows: Section II describes the Kansas criminal justice setting and the guidelines, and describes the data. Section III describes our methodological approach. Section IV presents the results and discussion. Section V concludes.

II. Institutional Background and Data Description

Like two-thirds of U.S. states, Kansas utilizes guidelines to structure the sentencing of criminal offenses. Each felony is associated with a presumptive sentence that recommends either prison or probation as well as the sentence length (in months). Figure 1 shows that the presumptive sentence is a function of the severity of the crime and the offender's criminal history which we will now discuss in turn. Almost all crimes are pre-classified into the various criminal severity levels by statute. For example, Chapter 21, Article 54, Section 13 of the Kansas statute differentiates among several types of aggravated battery and explicitly assigns each to a specific criminal severity level.

In the Kansas guidelines, an offender's criminal history reflects the severity of past offenses as well as the number of prior felonies.[2] For example, an offender with 1 prior person felony and 1 prior non-person felony is classified as criminal history level "C" whereas someone with 2 prior non-person felonies is classified as criminal history level "F". Even though both offenders have committed 2 prior felonies, the former offender will face a more punitive recommended sentence than the latter regardless of the severity of the new offense.

In addition, Figure 1 shows that in each cell, there are three numbers that correspond to the minimum, expected, and maximum sentence length (in months). The grey boxes indicate that the presumptive sentence is probation; in the clear boxes, the presumptive sentence is prison. The dashed boxes are referred to as "Border Box" cells. In these cells, the presumptive sentence is prison but a sentence to probation is not considered a departure from the guidelines as long as there is an alternative treatment plan available. The eventual placement of an offender on the grid is consequential for sentencing as adjacent or fairly proximate cells can be associated with very disparate presumptive sentences. For example, a defendant with 1 prior non-person felony who is charged with theft of $100,000 (a severity level 5 crime) should expect between 38 to 43 months in prison, regardless of her race, gender, or age. However, an otherwise identical defendant who is charged with theft of less than $100,000 (a severity level 7 crime) should expect 15 to 17 months of probation.

[2] Some other states, including Massachusetts, also use this more qualitative approach to categorizing the seriousness of the criminal history record.

Despite the fact that severity levels are defined by statute, it is possible that the offender's eventual sentencing cell is heavily influenced by prosecutorial (and perhaps defense counsel) behavior during the plea bargaining process. In Kansas, there are few restrictions on which elements of the case are negotiable. By statute, prosecutors are precluded from making any agreement to reduce or exclude prior offenses from the offender's criminal history.[3] As a result, criminal history is non-negotiable, though we will discuss later how defendants can challenge its calculation.

However, prosecutors have access to a wide range of other levers in plea negotiations. Prosecutors can move for dismissal of specific charges or counts, recommend a particular sentence within the sentencing range, agree to file or not file specific charges or counts, and "make any other promise to the defendant" that does not alter the offender's criminal history.[4] Similarly, Kansas reserves three forms of sentencing discretion for judges: within guidelines cell, departure from the guidelines, or the resolution of specified special circumstances.[5] First, while prosecutors are allowed to recommend a sentence length, judges are free to choose any sentence length within the range of the minimum and maximum sentences within the relevant cell. Second, judges can formally depart from the guideline sentence -- upward or downward -- as long as there are compelling mitigating or aggravating factors which are substantiated by the jury or included in the plea. Examples of defensible departing factors include whether the offender played a passive role in the crime, the crime is excessively brutal, the crime is a reaction to prolonged abuse, the crime is in self-defense, and etc. Departures along the intensive margin are called durational departures whereas those along the extensive margin are called dispositional departures, respectively. Upward departures are subject to appeal and can be reversed. Roughly 14% of all cases are sentenced with a formal departure.

[3] See Kansas Desk Reference Manual, page 33.
[4] Per K.S.A. Supp. 21-6812.
[5] In practice, the extent of the judge's influence is uncertain. One way to assess the theory is to see whether more of the residual variation in incarceration is within versus between judicial districts. If judges are highly influential in sentencing, then we might expect to see greater residual variation within district since this holds fixed all district level characteristics including the sentencing preferences of the prosecutor. A simple decomposition shows that nearly 70% of the overall residual variation is within district which provides some substance to the theoretical argument that judicial preferences should be reflected in sentencing outcomes.

Departure sentences will be an important focus of our analysis. This is motivated by the fact that the severity of punishments prescribed by the sentencing guidelines exhibit stark nonlinearities in specific regions of the grid. For example, the guidelines recommend that an offender who is charged with aggravated battery with intentional bodily harm (a severity level 4 offense) is sentenced to probation, whereas one who is charged with aggravated battery with intentional and great bodily harm (a severity 5 level offense) is sentenced to prison. While the difference in punishment severity may be warranted, the absence of clear definitions of what constitutes great bodily harm raises the possibility that similar offenses are categorized into different sentencing cells. The departure sentences will provide a way to measure the degree to which judicial preferences are aligned or misaligned with those of other actors in the system. For example, if judges find that the sharp increases in punishment severity with respect to small changes in categorization are unwarranted, then we may observe sharp increases in downward departure sentences in these regions of the grid.

The final form of sentencing flexibility gives judges considerable discretion when the offender is found to have violated a "special rule." Approximately 28% of all cases involve a special rule violation, which include committing a person felony with a firearm, aggravated battery against a law enforcement officer, committing crimes for the benefit of a street gang, persistent sex offenses, and more. The modal violation is committing a crime while on probation, parole, conditional release, post-release supervision, or felony bond and these constitute 72% of all special rule violations. In these cases, even if the offender commits a low severity crime, the judge can sentence the offender to prison without the decision being subject to formal review. Special rule violations are another important dimension of our analysis. In particular, we will examine whether a finding of special rules violations is more or less common around places in the sentencing grid where the probability of incarceration changes discontinuously.

Finally, how criminal history is treated in the sentencing process is another important feature of the criminal justice system in Kansas. Criminal history is, of course, just a version of the criminal severity findings for the defendant in previous time periods. As mentioned above, prosecutors and defendants bargain over criminal severity in the current time period, but they cannot bargain over criminal

history in the current time period. However, the defendant can object to his or her criminal history. In the data, we will observe whether an individual objected to his or her criminal history, whether that criminal history was amended, and the final recording of the criminal history that is taken into account in the sentencing grid. If the defendants are in a portion of the sentencing grid that faces a discontinuous jump in the probability of imprisonment, they may have more incentive to object to criminal history calculations.

III. Data and Descriptive Statistics

This study uses administrative sentencing data from Kansas that contains the universe of convicted felons from 1998 to 2011.[6] These data include a rich set of covariates including information on the felon's age, race, and gender, criminal history, plea status, attorney type (i.e., private versus public attorney), total criminal counts, the official account of the crime committed, and characteristics of the crime (e.g., whether the crime violates a special rule, is a person or non-person crime, drug or non-drug offense). Person crimes are defined as those that inflict harm on persons (e.g., robbery, rape, aggravated arson, and battery) whereas non-person crimes are generally property crimes. It is worth noting that we observe the primary decision margins that prosecutors affect through charges; that is, the severity of the crime, total counts, and whether a special rule has been violated. Unfortunately, we do not have access to the initial charges brought at the beginning of the bargaining process so we cannot observe how negotiations unfold.

Figure 2 shows separately the joint distribution of the sentencing cells and the offender's gender and sentencing cells and the offender's race. In particular, panels (a), (b), (c), and (d) shows the joint distribution of cells and women, men, black, and white offenders, respectively. We show the joint probabilities rather than conditional probabilities in order to place greater emphasis on cells that are more

[6] The analyses exclude off-grid and non-grid cases which cover crimes sentenced outside of the sentencing guidelines. Off-grid crimes include capital murder, first degree murder, treason, terrorism, illegal use of weapons of mass destruction, and sex offenses involving victims less of 14 years of age. Non-grid crimes include felony DUI, 3rd or more conviction of felony domestic battery, and animal cruelty. In the data, 12% of cases are sentenced outside of the grid, and of these, 91% are 3rd or 4th convictions of felony DUI's. These cases are excluded in order to focus the analysis on offenses associated with a clear presumptive sentence via the sentencing grid.

heavily populated. Each plot is structured such that holding a criminal history level fixed, moving left to right represents more to less severe offenses and holding severity fixed, moving front to back represents more to less prior felonies in the criminal history. Each plot also shows the joint probabilities for both non-drug and drug portions of the grid.

Figure 2 demonstrates three stylized facts. First, in general, low severity offenses are overrepresented while high severity offenses are relatively rare. In all four panels, it is apparent that there is more mass on the low severity regions of both the non-drug and drug portions of the sentencing grid. This is a common finding. Second, in general, most offenders tend to have sparse criminal histories. In panels (a), (b), and (d), it is clear that there is relative more mass towards the rear of the plots which is associated with fewer prior felonies. The notable exception is in panel (c) which shows that black offenders are relatively more likely to have more substantial criminal histories with more prior person and non-person felonies. This racial disparity may reflect an amalgam of factors including higher rates of offending as well as more frequent interactions with law enforcement due to racially disparate policing policies. Third, there are considerable differences in the distributions across demographic groups. In addition to the previously discussed differences between black and white offenders, women are much more represented in low severity offenses in comparison with men. Even among low severity offenses, the composition of crime is very different across gender; for example, forgery is the most common non-drug related offense among women while theft between $1,000 to $25,000 is the most common among men (Butcher, Park & Piehl 2016).

Table 1 shows descriptive statistics for all cases and separately for non-aggravated battery and aggravated battery offenses. For reasons described below, we will focus much of our analysis on aggravated battery offenses, and so we present separate summary statistics in columns 2 and 3. In terms of sentencing outcomes, roughly 26% of convicted felons are sentenced to prison and the average length of the prison term conditional on incarceration is close to 4 years. Most crimes are low-severity, non-person, and non-drug related offenses. The typical criminal history is 2 prior non-person felonies. In terms of demographics, women comprise a minority of convicted felons (roughly 19%) and the average age of a

convicted felon is 31 years old. And a very high proportion of criminal cases are resolved via plea bargains (96%). These descriptive patterns in Kansas are similar to those of other states (BJS 2006).

IV. Discontinuities in Punishment

To illustrate the nonlinear punishment structure embedded in the grid, consider a defendant with 1 prior person felony (e.g. criminal history level "D"). A 1-unit increase in severity from 1 to 2 or 2 to 3 or 3 to 4 should have a negligible impact on her likelihood of incarceration because the presumptive sentence for crimes with severity levels less than 5 and criminal history level "D" is probation. However, if she is assigned to criminal severity level 5, then she will almost surely be sentenced to prison barring a departure sentence or a special rule violation. In addition, note that there are also discontinuous changes in punishment severity as we move across criminal history levels holding the severity level constant. Consider, for example, 2 offenders who have both committed the identical severity level 1 offense but the one defendant has 2 prior person felonies and the other has 1 person and 1 non-person prior felonies. In this case, the guidelines prescribe prison for the former defendant but probation for the latter.

Figure 3 examines whether actual incarceration rates in data reflect the nonlinear punishment scheme recommended by the sentencing guidelines. In panels (a) and (b), the vertical grey lines denote the respective criminal severity and criminal history levels at which the presumptive sentence switches from probation to prison. This "pivot" is labeled as 0 and the other criminal severity and history levels are indexed in relation to their proximity to this pivot. Thus, a value of -1 indicates the criminal severity or criminal history level just before the presumptive sentence pivots from probation to prison. Each data point in panel (a) should be interpreted as the change in the probability of incarceration with respect to changes in criminal severity in comparison with the base criminal severity level (i.e., the lowest levels), holding criminal history constant. The difference between the circles and triangles is that the former reflect the incremental effect of criminal severity among the criminal history levels in which there actually is a pivot from presumptive probation to prison across different criminal severity levels. Panel (b)

shows analogous results but show the changes in the likelihood of incarceration with respect to changes in criminal history.

There are two interesting features of Figure 3. First, both panels visually confirm that there is a sharp increase in the likelihood of incarceration as the guideline sentence pivots from presumptive probation to prison. This is true regardless of whether we cross from presumptive probation to prison either via criminal severity or criminal history. For example, the likelihood of being sentenced to prison increases by nearly 30 and 48 percentage points as we cross into presumptive prison via criminal severity and criminal history, respectively. A point of emphasis in our analysis will be to study how this large and discontinuous increase in the likelihood of a prison sentence affects the dynamics of the plea bargaining process for cases close to the presumptive prison/probation margin.

Second, while the increases in the likelihood of incarceration are sizable, it is notable that a large share of offenders located in presumptive prison cells receive a sentence of probation. If judicial sentences were in complete lockstep with the sentencing guidelines, then all offenders located in presumptive prison cells should be sentenced to prison. Instead, the increases in the incarceration probabilities imply that judges issue more lenient sentences than what is prescribed by the sentencing guidelines. This pattern is not an artifact of gross measurement error in the data. Indeed, in the appendix, we show that among all cases without departure sentences or special rule violations, the incarceration rate among those in presumptive prison cells is 1. Thus, the observed patterns raise the possibility there is a misalignment between the judicial (or prosecutorial) preferences and those of other actors in the criminal justice system.

One of our primary goals is to characterize the degree of misalignment more rigorously. To set aside concerns about heterogeneity in offending, in a series of analyses we restrict the sample to aggravated batteries. The motivation for this is that aggravated battery is a fairly common offense, its gradations are ambiguously defined, and the crime spans multiple severity levels that straddle both presumptive probation and prison. Together, these qualities nominate aggravated battery as a prime

candidate for studying the effects of the punishment discontinuity on "pre-trial"[7] and sentencing outcomes.

Table 2 lists the most common offenses within severity levels that are in close proximity to the discontinuity. For example, in severity level 4, the most common criminal offense is burglary of a building that is not used as a dwelling. The striking feature of this table is that some crimes, such as aggravated battery, appear in a number of different severity levels. Aggravated battery with intentional bodily harm, great bodily harm, and reckless great bodily harm are categorized into severity levels 4, 5, and 6, respectively. This is important because an offender who is charged with a severity level 5 aggravated battery faces a presumptive sentence of prison, whereas an offender charged with a severity level 4 aggravated battery faces presumptive probation. Thus, subtle differences in the gradation of a given crime can translate into considerably disparate punishments. In addition, it is worth noting that what constitutes 'intentional' bodily harm as opposed to 'great' bodily harm is not precisely delineated in the statutes. In this case, it seems plausible that reasonable and well-intentioned persons could view the same offense as belonging to distinct severity levels due to differences in personal interpretation.

Our approach is to leverage the discontinuities in the sentencing grid to examine whether they induce differential behavior on the part of defendants, prosecutors, or judges. Of course, we do not perfectly observe the actions of the defendants, and prosecutors and judges may have more information than the researchers about the defendants and adjust the sentence accordingly. Our approach rests on the idea that the problem of unobservable information should exist for all cases regardless of where they fall relative to any discontinuities in the sentencing grid. Under this assumption, if we see differences in behavior on the part of defendants, prosecutors, or judges around these thresholds, we will interpret that is evidence of strategic assignment of cases to portions of the grid.

As described previously, Kansas law allows more potential for strategic assignment of cases in the sentencing grid vis a vis criminal severity, which is an explicit element of bargaining between the

[7] In this paper we refer to "pre-trial" outcomes in spite of the fact that cases are rarely concluded by trial. We adopt this convention because these outcomes, such as detention and type of counsel, are commonly referred to this way and, in any event, it is unknown at the time the choices are made whether or not the case will proceed to trial.

defense and prosecution, than for criminal history, which is not supposed to be negotiable. So, as another approach to the estimation of discretion, we will compare differences in outcomes at the point of discrete increases in punishment severity that are at the threshold due to criminal severity to those there due to criminal history.

Figure 4 illustrates the concept. It shows the distribution of cases by criminal severity in panel (a), and by criminal history in panel (b). The vertical line shows the point at which the punishment moves from presumptive probation to presumptive prison (for those rows and columns with a discontinuous jump). The darker bars show the distribution of cases for cells in the grid with discontinuities in presumptive prison. The lighter bars show the distribution for those bars without discontinuous jumps in presumptive punishment -- these are either more severe crimes or defendants with more worse criminal histories and thus no matter the severity level of the current offense, the individual will face prison.

Consider panel (a). The distribution of cases is quite lumpy across the 10 severity levels. In particular, the bin just past the presumptive incarceration threshold has fewer cases than the cases on either side of it. This is suggestive of a "hollowing out" of the distribution of cases around the threshold of incarceration when we consider crossing that threshold by virtue of the criminal severity threshold of the case. In contrast, consider panel (b). Here, when cases cross the incarceration threshold by virtue of criminal history (over which bargaining is prohibited), the frequency of cases declines monotonically. Again, this is suggestive that there may be strategic assignment of cases to criminal severity levels, at the point where the severity of punishment changes discontinuously.

Do these discontinuities in the grid translate into jumps in punishment, either dispositional type or sentence length? The estimates in Table 3 report the results of regressions of these two outcome variable: a dummy variable indicating an incarceration sentence in columns (1) and (4) and the log of prison months in columns (2-3) and (5-6) . In columns (3) and (6), the sample is restricted to those cases that result in incarceration. Each regression has dummy variables indicating the case is in a cell in the sentencing grid just below the incarceration threshold, at the incarceration threshold, the cell just above, and two or more above the sentencing threshold. The three left hand columns allow the punishment

severity to jump as the cases cross the incarceration threshold due to criminal severity (controlling for criminal history), while the three right hand columns allow punishment severity to jump due to the defendant's criminal history (controlling for crime severity). All regressions hold constant the offender's gender, race, age, whether there was a special rules violation, and the type of counsel. Standard errors are clustered at the district level.

We begin this discussion with panel A, which shows results for all non-drug related offenses. The first three columns show the changes in sentencing outcomes due to increases in criminal severity indexed by their proximity to the punishment discontinuity. The second three columns show analogous results as we cross the punishment discontinuity via criminal history. Column (1) shows a sizable and discontinuous increase in the likelihood of incarceration as the presumptive sentence switches from probation to prison. An offender whose criminal severity is immediately on the prison side of the presumptive probation/prison boundary faces a 28 percentage point increase in the likelihood of incarceration in comparison with those assigned to the base severity levels. Given that the overall incarceration rate is 0.260, this constitutes a 107% increase. Importantly, the increase in punishment is nearly as large when we move from severity level -1, just below the presumptive incarceration threshold, to severity level "0" where prison is presumed. This shows that offenses in neighboring severity levels can be punished very differently in the system. The patterns are similar when the outcome is prison length, where there is a very large percentage increase in the length of a prison term as the border between presumptive probation and prison is crossed.

Interestingly, the size of the jump in incarceration probability is even larger when the prison/no prison boundary is approached via a more severe criminal history, as reported on the right side of the table. In column (4), a case in the "0" cell is 48 percentage points more likely to receive a term of incarceration than those in the base criminal history cells, and 39 percentage points more likely than the next lowest cell. There are also large percentage increases in the average prison term as the border box threshold is crossed.

The results in this table demonstrate that -- as is consistent with the intention of establishing a sentencing grid -- where a case falls in the grid is extremely important in determining the severity of punishment. Thus, defendants, counselors, prosecutors and judges have incentives to pay close attention to, and to try to affect, the placement of a case within the sentencing guidelines grid.

The second thing to note is that the grid is not applied mechanically. While the increase in the incarceration probability is large, the rate of incarceration sentences in severity level "0" is far less than 1. The raw incarceration rate in the base severity levels is roughly 0.130, and thus, the 28 percentage point increase at severity level "0" implies that the incarceration rate at level "0" is roughly 0.410. If judges never veered from the sentencing guidelines, then the increase at severity level "0" should be roughly 60 percentage points larger than the one we actually observe in column (1) of panel A. The only explanation for the observed pattern is that, on average, judges exert their discretion -- either by formally departing from guidelines or by taking into account special rules violations -- to offer more lenient sentences than the prescribed punishments. This suggests that there may be misalignment between judicial preferences and those of other actors in the system. This motivates our investigation of mechanisms, including the possibility that the discontinuous punishment increase may influence other salient pretrial outcomes.

Before turning to those analyses, we note that in what follows we will shift focus to a single type of offense - aggravated battery. The two main patterns observed for nondrug crimes overall -- (i) the discontinuous increase in the incarceration probability at severity level "0" and (ii) the observation that the increase is not as large as it could be - hold true for aggravated battery as well. Panel B shows results from the same regression models for the aggravated battery subsample. The notable differences in the results across the two panels is that the coefficient on "2+" is larger in panel A when we include all offenses. This is expected since all offenses include much more severe crimes such as rape, murder, human trafficking, and the like. Otherwise, the coefficients show results that are qualitatively very similar to those when we use all criminal offenses. By focusing on this single offense, we can rule out the alternative explanations that the observed patterns are driven by differences in the types of crime across severity levels. Therefore our analyses of mechanisms proceeds using the narrower sample.

V. Mechanisms

We now turn to an examination of whether these thresholds appear to influence pre-trial outcomes: the decision to use private vs. public counsel; whether the case involves a special rules violation; whether the defendant is detained prior to trial; whether the defense objects to the criminal history, and whether the criminal history is amended; and finally, whether the judge formally departs from the guidelines in the case.

Table 4 shows how pretrial outcomes are affected by changes in criminal severity and criminal history in close proximity to the punishment discontinuity. In this table, panel A shows the effects of crossing the discontinuity via criminal severity and panel B shows the impact of crossing the discontinuity via criminal history. We focus on three outcomes, whether the defendant retains private counsel, whether the defendant is held in detention, and whether the defendant pleads guilty. Column (1) in panel A shows evidence that is consistent with an increase in demand for private counsel only in severity level "0" and not elsewhere. This is not surprising since in severity levels below the discontinuity, the presumptive sentence is probation and the range in the prescribed prison lengths are fairly narrow. For example, an offender with criminal history level "C" who commits a severity level 4 crime is expected to receive a sentence of probation anywhere between 25 to 29 months. Thus, hiring private counsel may not worth the cost for offenders in low severity levels.

It is, however, interesting that the increase in the demand for private counsel does not persist at higher severity levels. Again, one reason for this could be that the range of prison terms is not very wide even for high severity aggravated battery. For example, an offender with a level "C" criminal history who is convicted of a severity level 7 battery faces between 68 to 75 months in prison. It may be that the cost of hiring private counsel exceeds the expected value of a few month reduction in the prison term. On the other hand, the increase in private counsel at severity level 0 is consistent with a relatively higher valuation of avoiding a prison term. It consistent either with the idea than these defendants have a particularly high value of retaining private counsel because they will face prison if convicted (unless the

judge formally departs from the grid), and consistent with the idea that the private counsel managed to bargain them down to this cell in the grid when they would have faced a higher severity charge without private counsel.

Column (2) shows the differential effect of criminal severity for those held in detention prior to trial. Defendants who detained are likely to be those who are deemed more dangerous and/or those who have fewer resource with which to make bail. These coefficients are the interaction between the dummy variable for severity level and whether the individual was in pretrial detention. Even those in the -1 severity category retain private counsel if they are in pre-trial detention.

Turning to panel B, where the cases cross the presumptive prison boundary via criminal history, one sees a different pattern. All of the coefficients in column (1) are negative, which is consistent with the fact that defendants with lengthy criminal histories likely have fewer resources with which to engage private counsel. Even among this disadvantaged group, those are detained prior to trial are more likely to engage private counsel and statistically more likely than the base group if they are in the presumptive prison boundary box.

Turning back to panel A, column (3) shows that the share offenders who are held in detention instead of being released by felony bond or bail rises smoothly across the presumptive probation/prison border. There is, however, a 19 percentage point increase in pretrial detention from 0 to 1. In panel B, the rise in the probability of pre-trial detention is more continuous with a 21, 29, and 33 percentage point jumps relative to the base case at -1, 0, and 1. These jumps are not statistically different by private counsel status, whether the prison boundary is crossed via criminal severity or criminal history.

Column (5) estimates the probability that the case was decided by a plea. As the severity increases, cases are less likely to be decided by a plea. Moving from 0 to 1 and from 1 to 2+ in severity each shows a successive 6 percentage point drop in the probability of a plea. In panel B, both the 0 and 1 categories show about a 2 percentage point lower probability of a plea from the base case (though only marginally statistically significantly different from zero). In panel A, there are no statistically significant differences in plea probability by private counsel status, or by pre-trial detention. However, in the lower

panel, those with the most severe criminal histories are more likely to plea if they have private counsel. Those in the pre-trial detention are less likely to plea if they are not in a presumptive prison criminal history box.

In sum, Table 4 suggests that where a defendant is in the sentencing grid affects decisions about private counsel, pre-trial detention, and plea status. It is worth emphasizing that the results are not wholly consistent with the hypothesis that the increase in sentencing outcomes across the discontinuity is an artifact of worse offender criminality. On the one hand, panel A shows marked increases in pretrial detention at severity levels 1 and 2+ which is consistent with these offenders being worse criminals (e.g. they may have a higher risk of flight or a higher likelihood of re-offense upon release). On the other hand, it is interesting that plea rates fall considerably in severity levels 1 and 2+ which may indicate that in these levels, prosecutors seek plea agreements that are, on average, excessive in comparison with the strength of evidence. The absence of an analogous decrease in plea rates as we cross the discontinuity via criminal history raises further questions regarding the bargaining process especially since the observed changes in plea rates occur precisely along the margin that prosecutors can affect (e.g. along criminal severity but not criminal history).

We further characterize the observed patterns by examining additional outcomes in the criminal justice process. Specifically, we examine whether the defendant formally objects to the criminal history on record, whether the criminal history was subsequently amended, whether the defendant is charged with a firearm special rule violation, and whether the judge issues a departure sentence. Panels A and B of Table 5 shows results when we cross the punishment discontinuity via criminal severity and history, respectively.

Column (1) continues to show that defendants respond to incentives embedded in the sentencing grid. While there is an increase in criminal history objections at severity levels 0 and 1 of 1.3 and 2.4 percentage points, respectively, the increase in criminal history objections as we cross the punishment discontinuity via criminal history is nearly 8 times larger at 9.9 percentage points. At criminal history level 1, objections fall by 50% from 9.9 to 4.8 percentage points. This pattern is expected in the sense that

the potential payoff to a formal objection is highest at criminal history level 0. If successful, then an amendment at history level 0 would translate into a decrease in the presumptive sentence from prison to probation.

Of course, we note the possibility that the increase in objections could reflect a change in court officers who are responsible for determining one's criminal history rather than a change in the defendant's behavior. For example, if court officers hold certain biases, perhaps related to the offender's race, gender, or specific offense, which lead to pre-sentencing investigations that embellish the offender's prior record, then we might expect to observe similar patterns. Column (2) assesses this hypothesis by examining amendments to the criminal history on record. Panel A shows that as we move along criminal severity, there is no evidence of an increase in criminal history amendments. However, panel B shows that the likelihood of an amendment increases by 2.8 percentage points at criminal history level 0 in comparison with the base criminal history level. This pattern reinforces the idea that inefficiencies in the criminal justice system can arise at multiple points and generated by various actors besides prosecutors and judges.

Column (3) examines the likelihood of being charged with a firearm-related special rule violation in close proximity to the discontinuity. It is interesting that there is a higher likelihood of being charged with a firearm violation as we cross the discontinuity via criminal severity but there is no analogous increase as we cross the punishment discontinuity via criminal history. For example, at severity levels 0, 1, and 2+, the likelihood of a firearm charge increases by 2.4, 6.2, and 6 percentage points, respectively. In contrast, at criminal history levels -1, 0, and 1, the likelihood of a firearm charge falls by 6.1, 4.5, and 5.9 percentage points, respectively. The obvious explanation for this pattern is that the increase in firearm charges is expected to the extent that high severity aggravated batteries should be more strongly associated with worse case facts. There are, however, some pieces of evidence that are not in parallel with this interpretation. For example, we cannot find similar patterns with other relevant special rules violations besides the firearm charge. While we do not present these estimates for the sake of brevity, there is no evidence that defendants assigned to high severity aggravated batteries are more likely to have

assaulted a law enforcement office, committed battery for the benefit of a street gang, committed battery against a domestic partner, or committed the battery while on probation or parole. This pattern breathes life into the concern that perhaps the punishment discontinuity shifts bargaining power away from the defendant in a way that allows for excessive charges than would arise otherwise.

We explore this possibility by examining whether judges issue an upward or downward departure sentences. If it is true that other actors in the system, perhaps prosecutors or the guidelines themselves, seek excessively punitive punishments, then we may observe judicial sentences that counteract these preferences via departure sentences. In particular, we should expect to see fewer upward departures and more downward departures as we cross the punishment discontinuity. On the other hand, if other actors are behaving in ways that comply with judicial standards of jurisprudence, then we should not expect to see judicial behavior that unwinds the decisions that other actors make. Thus, departure sentences allow us to gauge the degree of alignment or misalignment between judges and other actors in the system even though our data set does not have information on the charges filed at different junctures of the bargaining process.

Columns (4) to (7) shows the results. The patterns in panel A strongly support the idea that there is some misalignment between judicial preferences and those of other actors in the system. As we cross the punishment discontinuity with respect to criminal severity, there is a stark decrease of roughly 1.4 percentage points in the likelihood of upward dispositional departures. This is a sizable magnitude in percent terms given the low base of upward departure sentences. Conversely, both durational and dispositional downward departure sentences increase substantially as we cross the discontinuity with respect to criminal severity. For example, the coefficients associated with severity levels 0, 1, and 2+ for downward dispositional departures are 4.9, 27.5, and 20.2 percentage points which constitute 25%, 138%, and 101% increases, respectively. It is worth emphasizing that these results comport with the narrative of asymmetric preferences across actors in the criminal justice system. The increase only in special firearm violations with respect to the punishment discontinuity is not aligned with the increase in judicial leniency. Instead, the decrease in upward departures and increase in downward departures appears more

consistent with diminished strength of evidence as we cross the punishment discontinuity which is consistent with the fall in plea rates observed earlier.

We stress that there are important limitations as to what we can conclude from this exercise. While these patterns imply that there is a misalignment in preferences across judges and other actors in the system, it is difficult to separately identify who are the others. For example, it is possible that police behavior contributes to the patterns observed in panel A. The estimates in panel B provide more traction on this issue. The results in panel B show that we observe similar patterns in departure sentences as we cross the punishment discontinuity via criminal history. This suggests that not all of the difference of opinion can be attributed to police or prosecutorial behavior. This is because it seems unlikely that police or prosecutors could affect margins that would contemporaneously affect an offender's criminal history directly.[8] Thus, the substantively large decreases in upward departures and increases in downward departures may imply that punishment discontinuity is unwarranted in the sense that judicial sentences unwind the punishments prescribed by the sentencing grid in a large share of cases.

VI. Heterogeneity by Race

In this final section of results, we examine heterogeneous effects by race. Table 6 presents regression results for most of the outcomes covered in Tables 3 and 5. There are two columns for each dependent variable. The first column for each outcome shows the main effect of the case being in a crime severity or criminal history cell near the prison/probation threshold and the second column shows the interaction with a dummy variable indicating the defendant is African American. Under some strict assumptions (that all cases are in a cell in the sentencing grid because that represents what "actually happened" and the hypothesis that African Americans and defendants of other races are treated the same by the criminal justice system and that members of all races negotiate similarly under punishment uncertainty), there should be no reason for differential outcomes between African Americans and others as they cross the prison/probation boundary. Panel A shows the results when crossing the

[8] Of course, current criminal history will reflect cumulative past interactions.

prison/probation threshold via criminal severity and panel B shows the results for crossing that threshold via criminal history.

The first set of results is for whether the defendant is sentenced to incarceration. Here we again see that there is a large (22 percentage point) jump in the probability of incarceration as one moves from -1 to 0 in criminal severity. The second column shows that the jump is 7.1 percentage points larger that the prison threshold for African American defendants. The next two columns show the results when the outcome is the log of prison months, conditional on receiving a term of incarceration. Here, we see that at the 0 level of severity, African Americans receive about a 10 percent shorter sentence. This suggests that here is something different about the African Americans who are in the 0 category. Although they are more likely to receive a term of incarceration, they receive a shorter sentence than other groups in that category. Future drafts will explore whether African Americans are differentially likely to plea or be detained or retain private counsel around these thresholds, and if that may explain these differences. Turning to the bottom panel, the results indicate that when the prison/probation threshold is approached via criminal history, there is no (statistically significant) difference in the incarceration probabilities and prison length for African Americans and other groups.

The next two sets of columns examine objections and amendments to criminal history. There is no statistically significant difference between African American defendants and other groups that the criminal history will be objected to at the prison/probation boundary, whether the boundary is approached via criminal severity (panel A) or criminal history (panel B). There is some evidence that the criminal history is differentially likely to be amended for African Americans at very high levels of criminal severity.

The next set of columns examine the probability of a firearms charge. Those cases with the highest level of criminal severity are 2.6 percentage points more likely to be charged with a firearms violation, but if the defendant is African American, the increase is an additional 9 percentage points. This may, of course, be because these defendants are more likely to have firearms. However, it is interesting

that in terms of criminal history, African Americans with the most severe criminal history are relatively less likely to have a firearm charge.

Finally, we examine differences in the probability of upward and downward judicial departures. Here we have collapsed both dispositional and durational departures into a single indicator variable for brevity. There are no statistically significant differences in the probability of upward departures by criminal severity level for African Americans and other groups. However, when the prison/probation boundary is approached via criminal history, those on the prison side are less likely to garner an upward departure, but this drop is smaller for African American defendants. In terms of downward departures, all defendants are more likely to receive a judicial departure when they are on the prison side criminal severity boundary, and there is no statistical difference when the defendant is African American. However, when the prison/probation boundary is approached via criminal history, downward departures are more likely as one passes the prison threshold, but they are relatively less likely if the defendant is African American.

VII. Conclusion

Research suggests that "within cell" variation in outcomes is swamped by between cell differences. Thus, understanding the processes that determine how a case ends up in a particular cell, and the scope for discretion in that decision, is important for understanding criminal justice outcomes.

First, we find evidence that the location in the sentencing grid of a case is of primary importance in determining incarceration and length of incarceration. Second, we find evidence consistent with strategic assignment of cases to cells within the sentencing grid, and evidence of strategic reactions to discontinuous jumps in the severity of punishment. Finally, we find evidence that suggests that judges and prosecutors differ in their beliefs about appropriate punishments as judges are more likely to formally depart from the sentencing guidelines at the point where punishment severity dramatically changes. This is consistent with judges holding different beliefs about the appropriateness of the punishments assigned

to particular levels of criminal severity, and consistent with judges holding different beliefs about the appropriateness of assigning a particular case or defendant to a given level of criminal severity.

Given evidence that judges vary so much in their views of appropriate punishments, in future work we plan to exploit random assignment to harsh and lenient judges to examine how that interacts with the discontinuities in punishment severities in the sentencing grid to influence the pretrial and sentencing outcomes.

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Figure 1: Kansas Sentencing Guidelines

Non-Drug Offenses

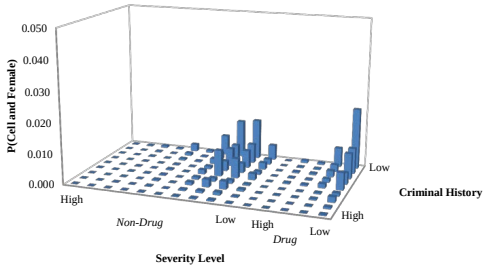
Severity Level	Criminal History A	B	C	D	E	F	G	H	I
	3+ Person Felonies	2 Person Felonies	1 Person & 1 Non-Person Felonies	1 Person Felony	3+ Non-Person Felonies	2 Non-Person Felonies	1 Non-Person Felony	2+ Misdemeanors	1 Misdemeanor or No Record
1 (Most Severe)	653/620/592	618/586/554	285/272/258	267/253/240	246/234/221	226/214/203	203/195/184	186/176/166	165/155/147
2	493/467/442	460/438/416	216/205/194	200/190/181	184/174/165	168/160/152	154/146/138	138/131/123	123/117/109
3	247/233/221	228/216/206	107/102/96	100/94/89	92/88/82	83/79/74	77/72/68	71/66/61	61/59/55
4	172/162/154	162/154/144	75/71/68	69/66/62	64/60/57	59/56/52	52/50/47	48/45/42	43/41/38
5	136/130/122	128/120/114	60/57/53	55/52/50	51/49/46	47/44/41	43/41/38	38/36/34	34/32/31
6	46/43/40	41/39/37	38/36/34	36/34/32	32/30/28	29/27/25	26/24/22	21/20/19	19/18/17
7	34/32/30	31/29/27	29/27/25	26/24/22	23/21/19	19/18/17	17/16/15	14/13/12	13/12/11
8	23/21/19	20/19/18	19/18/17	17/16/15	15/14/13	13/12/11	11/10/9	11/10/9	9/8/7
9	17/16/15	15/14/13	13/12/11	13/12/11	11/10/9	10/9/8	9/8/7	8/7/6	7/6/5
10 (Least Severe)	13/12/11	12/11/10	11/10/9	10/9/8	9/8/7	8/7/6	7/6/5	7/6/5	7/6/5

Drug Offenses	A	B	C	D	E	F	G	H	I
1 (Most Severe)	204/194/185	196/186/176	187/178/169	179/170/161	170/162/154	167/158/150	162/154/146	161/150/142	154/146/138
2	83/78/74	77/73/68	72/68/65	68/64/60	62/59/55	59/56/52	57/54/51	54/51/49	51/49/46
3	51/49/46	47/44/41	42/40/37	36/34/32	32/30/28	26/24/23	23/22/20	19/18/17	16/15/14
4 (Least Severe)	42/40/37	36/34/32	32/30/28	26/24/23	22/20/18	18/17/16	16/15/14	14/13/12	12/11/10

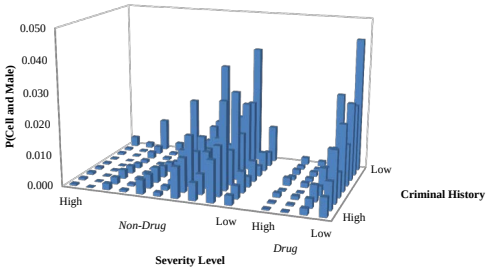
Notes: In the grey and clear boxes, the presumptive sentence is probation and prison, respectively. Dashed boxes are "Border Box" cells in which the judge can issue a non-prison sentence subject to the availability of an appropriate rehabilitation program. The numbers in each cell represent different sentence lengths in months. The low and high values represent the minimum and maximum sentence, respectively. The intermediate value is the recommended or presumptive sentence length.

Figure 2: Joint Distribution of Sentencing Cell and Offender Demographic

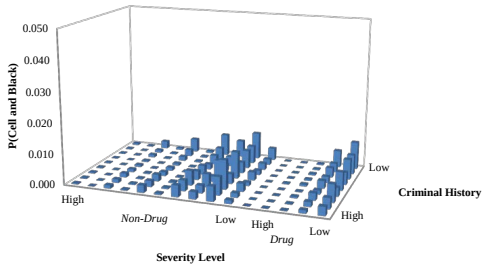
(a) P(Cell and Female)



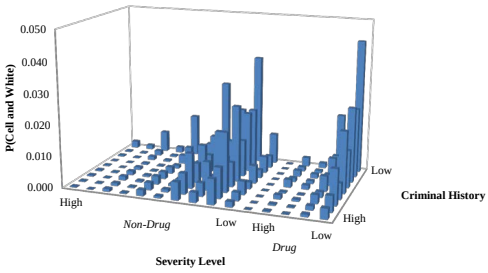
(b) P(Cell and Male)



(c) P(Cell and Black)



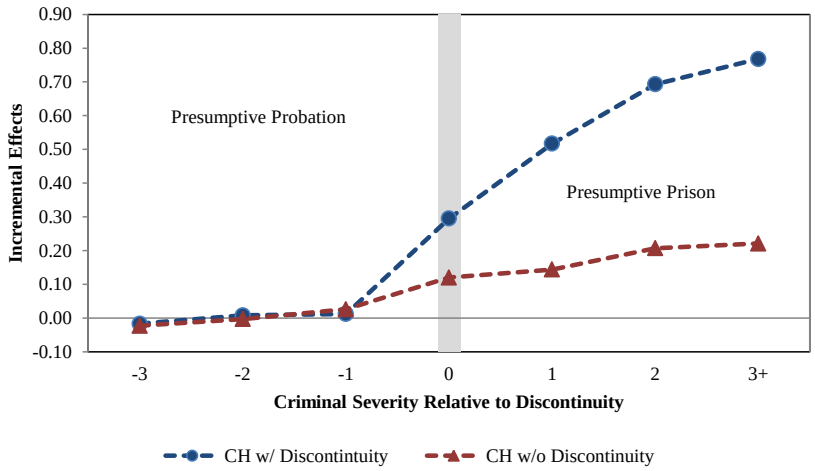
(d) P(Cell and White)



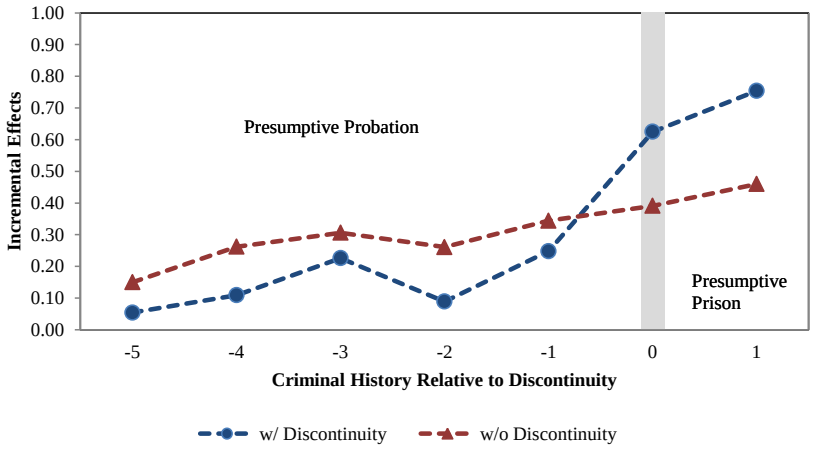
Notes: Panels (a) and (b) show the joint probability of criminal severity-by-criminal history cell and the offender's gender and Panels (c) and (d) show the joint probability of sentencing cells and the offender's race. High and Low severity levels refer to the most and least severe offenses, respectively. High and Low criminal history refers to the most and least extensive prior records, respectively. Thus, the figure shows that low severity offenses are overrepresented in the Kansas criminal justice system although there is considerable difference in the distributions across gender and race.

Figure 3: Discontinuity in Incarceration Probability

(a) Incremental Effect of Criminal Severity



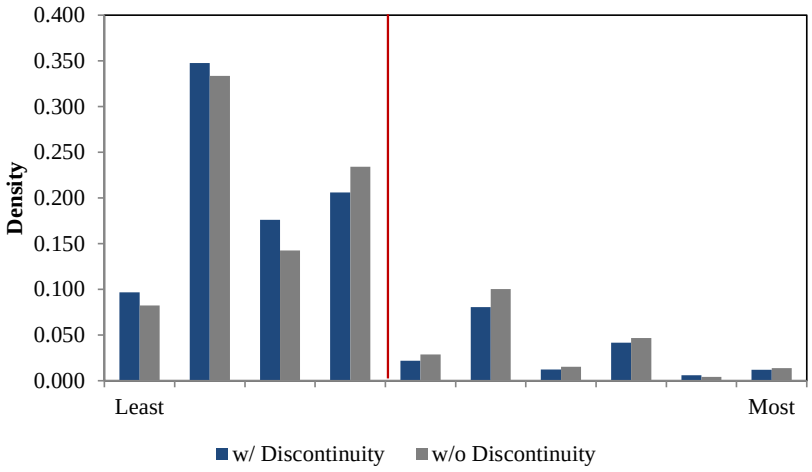
(b) Incremental Effect of Criminal History



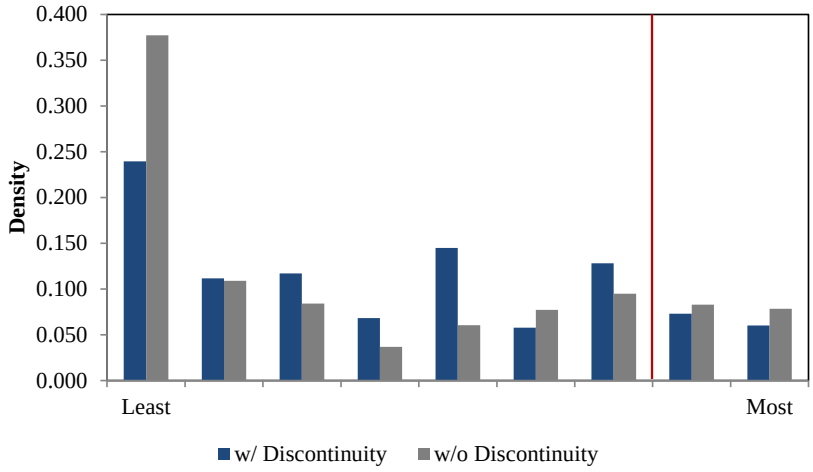
Notes: In each panel, the vertical line indicates the criminal severity or history level in the sentencing grid at which point the presumptive sentence switches from presumptive probation to prison. We refer to this pivotal point as the "discontinuity" in the sentencing grid. In Panel (a), each dot represents the estimated change in the likelihood of incarceration in comparison with the lowest severity level due to increases in criminal severity adjusting for criminal history. In Panel (b), each dot represents the estimated change in the likelihood of incarceration due to a change in criminal history adjusting for criminal severity.

Figure 4: Distributions of Criminal Severity and Criminal History

(a) Distribution of Criminal Severity



(b) Distribution of Criminal History



Notes: The red vertical lines in the two panels shows the respective criminal severity and criminal history levels at which the presumptive sentence pivots from probation to prison. There are, however, some criminal severity and criminal history levels in which there is no abrupt change in the presumptive sentence. For these severity and history levels, the distribution of criminal severity and criminal history is labeled as "w/o Discontinuity".

Table 1: Descriptive Statistics

		Aggravated Battery?		
Sentencing Outcomes:	All Cases	No	Yes	Diff
Incarceration	0.260	0.259	0.283	0.024*
	(0.007)	(0.008)	(0.012)	(0.014)
Prison Months — Incarceration	42.971	43.12	40.584	-2.535
	(1.913)	(2.004)	(0.818)	(1.557)
Probation Months — No Prison	19.055	18.8	23.620	4.820***
	(0.295)	(0.275)	(0.487)	(0.337)
Demographics:				
Age	30.932	30.976	30.159	-0.817***
	(0.226)	(0.222)	(0.422)	(0.278)
White	0.650	0.655	0.561	-0.094***
	(0.037)	(0.037)	(0.037)	(0.013)
Black	0.245	0.242	0.299	0.057***
	(0.036)	(0.036)	(0.043)	(0.015)
Hispanic	0.106	0.104	0.140	0.037***
	(0.015)	(0.015)	(0.021)	(0.010)
Case Facts:				
Total Counts	1.270	1.275	1.169	-0.106***
	(0.031)	(0.032)	(0.016)	(0.027)
Severity (Non-Drug Offense)	3.354	3.278	4.234	0.956***
	(0.088)	(0.088)	(0.064)	(0.068)
Severity (Drug Offense)	1.449			
	(0.025)			
Criminal History	3.887	3.885	3.922	0.037
	(0.097)	(0.095)	(0.134)	(0.065)
Objection to Criminal History	0.042	0.042	0.049	0.008***
	(0.005)	(0.005)	(0.006)	(0.002)
Person Crime	0.295	0.255	0.993	0.739***
	(0.015)	(0.013)	(0.001)	(0.013)
Non-Drug Offense	0.674	0.655	1.000	0.345***
	(0.018)	(0.018)		(0.018)
Special Rule Violation	0.277	0.282	0.190	-0.092***
	(0.006)	(0.006)	(0.010)	(0.011)
Firearm (Special Rule)	0.021	0.019	0.049	0.029***
	(0.003)	(0.003)	(0.007)	(0.005)
Private Counsel	0.236	0.233	0.276	0.043***
	(0.019)	(0.018)	(0.025)	(0.013)
Pretrial Detention	0.422	0.42	0.469	0.049**
	(0.031)	(0.030)	(0.045)	(0.020)
Plea	0.956	0.957	0.949	-0.008**
	(0.004)	(0.005)	(0.003)	(0.004)

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. There are 118,796 cases in the full sample and 6,409 cases of aggravated battery. Sample means are computed by running regressions of the variable on constant. Mean differences between aggravated battery and non-aggravated battery cases are estimated by regressions of the variable on an indicator for aggravated battery. Standard errors are reported in parentheses and clustered at the district level.

Table 2: Most Common Offenses By Severity Level in Close Proximity to Discontinuity

Non-Drug Related Offenses						
Rank	**Severity Level 4**	%	**Severity Level 5**	%	**Severity Level 6**	%
1	Burglary - building not used as dwelling	23.14	Agg. Assault on LEO	16.58	Robbery	18.52
2	Burglary - building used as dwelling	21.20	Agg. Indecent Solicitation of Child*	15.92	Agg. Burglary	15.53
3	Agg. Battery - intentional bodily harm	14.56	Agg. Battery - intentional, great bodily harm	15.60	Agg. Battery - reckless, great bodily harm	9.15
4	Agg. Assault	13.73	Traffic in Contraband in a Correctional Institution	11.30	Indecent Liberties with Child 14 to 16 yos**	5.98
5	Agg. Battery - intentional, physical contact	4.67	Agg. Intimidation of witness or victim	7.55	Agg. Indecent Liberties with Child 14 to 16 yos***	5.55
Cumulative %		77.30		66.96		54.73
Drug Related Offenses						
Rank	**Severity Level 1**	%	**Severity Level 2**	%	**Severity Level 3**	%
1	Opiates or Narcotics - Poss 1st Offense	75.91	Opiates or Narcotics - Sale 1st Offense	48.02	Opiates or Narcotics - Poss 2nd Offense	29.35
2	Depress/Stim/Halluc - Poss 1st or 2nd Offense	16.33	Depressants/Stimulants/Hallucinogenic - Sale	41.61	Opiates or Narcotics - Intent to sell near school	18.67
3	Poss of Paraphenalia	5.53	Distribution Near School Property - 1st offense	3.73	Opiates or Narcotics - Intent to sell - 2nd Offense	11.35
Cumulative %		97.77		93.36		59.37

Note: LEO stands for Law Enforcement Officer. The * reflects that this offense is aggravated indecent solicitation of a child to commit or submit to an unlawful sexual act. The ** refers to indecent liberties that involve lewd fondling or touch. The *** refers to indecent liberties that involve sexual intercourse.

Table 3: Sentencing Outcomes in Close Proximity to Discontinuity

Panel A: All Non-Drug Related Offenses

Sentencing Outcome:	Incarceration	Log(Prison Months)		Incarceration	Log(Prison Months)	
	(1)	(2)	(3)	(4)	(5)	(6)
-1	0.013	0.138***	0.720***	0.088***	0.272***	0.298***
	(0.011)	(0.028)	(0.036)	(0.007)	(0.018)	(0.010)
0	0.283***	1.075***	1.220***	0.477***	1.413***	0.410***
	(0.019)	(0.063)	(0.058)	(0.020)	(0.051)	(0.016)
1	0.518***	2.144***	1.444***	0.588***	1.822***	0.506***
	(0.046)	(0.168)	(0.051)	(0.021)	(0.056)	(0.018)
2+	0.706***	3.390***	2.186***			
	(0.040)	(0.161)	(0.027)			
Cross Discontinuity via:	CS	CS	CS	CH	CH	CH
R^2	0.457	0.577	0.834	0.445	0.575	0.883
N	80,030	80,030	22,738	80,030	80,030	22,738

Panel B: Conditional on Aggravated Battery

Sentencing Outcome:	Incarceration	Log(Prison Months)		Incarceration	Log(Prison Months)	
	(1)	(2)	(3)	(4)	(5)	(6)
-1	-0.033***	-0.062*	0.555***	0.107***	0.342***	0.394***
	(0.011)	(0.035)	(0.044)	(0.020)	(0.061)	(0.030)
0	0.252***	0.937***	0.981***	0.516***	1.681***	0.469***
	(0.018)	(0.063)	(0.043)	(0.025)	(0.074)	(0.021)
1	0.571***	2.245***	1.276***	0.638***	2.154***	0.568***
	(0.055)	(0.205)	(0.032)	(0.023)	(0.075)	(0.020)
2+	0.516***	2.335***	1.524***			
	(0.073)	(0.298)	(0.030)			
Cross Discontinuity via:	CS	CS	CS	CH	CH	CH
R^2	0.487	0.551	0.809	0.465	0.528	0.785
N	6,409	6,409	1,814	6,409	6,409	1,814

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. "CS" and "CH" stand for criminal severity and criminal history. The presented coefficients are regression adjusted for the offender's gender, race, age, whether the offender committed a special rule violation, and type of counsel. Columns 1 to 3 include a set of fixed effects for criminal history and columns 4 to 6 include a set of fixed effects for criminal severity. In columns 3 and 6, we restrict the sample to those who are sentenced to prison. Standard errors are clustered at the district level.

Table 4: Pretrial Outcomes in Close Proximity to Discontinuity

Panel A: Cross Discontinuity via Criminal Severity

Pretrial Outcome:	Private Counsel		Pretrial Detention		Plea Status		
	All Cases	By Detention	All Cases	By Counsel	All Cases	By Counsel	By Detention
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
-1	-0.006	0.082***	0.083***	-0.009	-0.017**	0.018	-0.013
	(0.018)	(0.020)	(0.024)	(0.041)	(0.007)	(0.012)	(0.010)
0	0.069**	-0.003	0.125***	-0.048	-0.021	-0.023	0.006
	(0.032)	(0.059)	(0.028)	(0.052)	(0.014)	(0.023)	(0.017)
1	0.018	0.003	0.319***	-0.025	-0.088***	-0.042	0.022
	(0.021)	(0.040)	(0.039)	(0.034)	(0.020)	(0.061)	(0.028)
2+	-0.014	0.066	0.337***	0.028	-0.150***	-0.000	0.055
	(0.036)	(0.078)	(0.039)	(0.119)	(0.030)	(0.042)	(0.098)
R^2	0.064	0.107	0.246	0.247	0.049	0.053	0.051

Panel B: Cross Discontinuity via Criminal History

Pretrial Outcome:	Private Counsel		Pretrial Detention		Plea Status		
	All Cases	By Detention	All Cases	By Counsel	All Cases	By Counsel	By Detention
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
-1	-0.110***	0.062	0.213***	-0.031	-0.003	0.022	-0.036***
	(0.020)	(0.042)	(0.017)	(0.056)	(0.007)	(0.016)	(0.012)
0	-0.116***	0.100**	0.293***	0.032	-0.017*	-0.045	-0.001
	(0.024)	(0.037)	(0.019)	(0.081)	(0.009)	(0.045)	(0.020)
1	-0.131***	0.060	0.328***	-0.019	-0.024	0.052***	-0.027
	(0.027)	(0.067)	(0.033)	(0.054)	(0.017)	(0.013)	(0.019)
R^2	0.043	0.095	0.234	0.235	0.048	0.054	0.050
Means (Dep Var)	0.276		0.469		0.949		

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The sample is restricted to aggravated battery cases and $n = 6,409$. Columns 1, 3, and 5 show the incremental effects of criminal severity and criminal history near the discontinuity on the likelihood of attaining private counsel, being held in pretrial detention, and pleading guilty, respectively. Columns labeled "By Detention" shows the differential impact with respect to being held in custody versus released on felony bond or bail. Columns labeled "By Counsel" shows the differential impact with respect to attaining private versus public counsel. The differential impacts are estimated via pooled regressions that include interactions between the variable of interest (e.g. pretrial detention or type of counsel) with the proximity to discontinuity indicators. The presented coefficients control for the usual set of covariates. Standard errors are shown in parentheses and are clustered at the district level.

Table 5: Characterizing Aggravated Batteries in Close Proximity to Discontinuity

Panel A: Cross Discontinuity via Criminal Severity

	Criminal History			Upward Departure		Downward Departure	
Outcome Variable:	Objection	Amended	Firearm	Durational	Dispositional	Durational	Dispositional
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
-1	-0.002	0.008	0.014*	0.006**	0.001	-0.006	-0.018***
	(0.009)	(0.005)	(0.007)	(0.003)	(0.005)	(0.004)	(0.004)
0	0.013*	-0.002	0.024**	0.006	-0.014***	0.039***	0.049***
	(0.007)	(0.004)	(0.009)	(0.005)	(0.005)	(0.007)	(0.016)
1	0.024***	0.007	0.062***	0.016	-0.015***	0.114***	0.275***
	(0.007)	(0.004)	(0.011)	(0.011)	(0.005)	(0.020)	(0.056)
2+	0.004	0.012	0.060***	0.011	-0.016**	0.121***	0.202***
	(0.015)	(0.009)	(0.018)	(0.009)	(0.007)	(0.038)	(0.060)
R^2	0.038	0.016	0.260	0.007	0.017	0.114	0.199

Panel B: Cross Discontinuity via Criminal History

	Criminal History			Upward Departure		Downward Departure	
Outcome Variable:	Objection	Amended	Firearm	Durational	Dispositional	Durational	Dispositional
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
-1	0.034***	0.003	-0.061***	-0.001	0.030***	0.008	0.016***
	(0.007)	(0.009)	(0.008)	(0.003)	(0.007)	(0.006)	(0.003)
0	0.099***	0.028***	-0.045***	-0.005**	-0.013***	0.060***	0.317***
	(0.018)	(0.010)	(0.012)	(0.002)	(0.003)	(0.010)	(0.032)
1	0.048**	-0.019***	-0.059***	-0.002	-0.014***	0.073***	0.212***
	(0.018)	(0.005)	(0.009)	(0.003)	(0.004)	(0.009)	(0.029)
R^2	0.036	0.016	0.250	0.006	0.019	0.107	0.169
Means (Dep Var)	0.049	0.024	0.049	0.007	0.012	0.045	0.069

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The sample is restricted to aggravated battery cases and $n = 6,409$. In columns 1 and 2, the outcome variables indicate whether the defense filed an objection to the criminal history and whether the record was amended, respectively. In column 3, Firearm is an indicator for whether the offender is charged with committing the felony with a firearm. Importantly, a firearm charge is a special rule violation that allows the judge to sentence an offender to prison without formal review. Durational and dispositional refer to sentencing departures along the intensive and extensive margins, respectively. The presented coefficients control for the usual set of covariates. Standard errors are shown in parentheses and are clustered at the district level.

Table 6: Racial Disparity in Outcomes in Close Proximity to Discontinuity

Panel A: Cross Discontinuity via Criminal Severity

	Incarceration		Log(Prison Months)		Object to CH		CH Amended		Firearm		Upward Departure		Downward Departure	
	White	BW Gap	White	BW Gap	White	BW Gap	White	BW Gap	White	BW Gap	White	BW Gap	White	BW Gap
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
-1	-0.034**	0.008	0.559***	-0.064	-0.011	0.017	0.003	0.009	0.011	0.013	0.010	-0.011	-0.024***	0.010
	(0.013)	(0.014)	(0.048)	(0.047)	(0.011)	(0.010)	(0.007)	(0.011)	(0.008)	(0.010)	(0.007)	(0.011)	(0.008)	(0.008)
0	0.220***	0.071**	1.007***	-0.099*	0.000	0.019	-0.007*	0.008	0.020	0.023	-0.003	-0.013	0.093***	0.011
	(0.025)	(0.030)	(0.044)	(0.058)	(0.007)	(0.022)	(0.004)	(0.006)	(0.012)	(0.019)	(0.011)	(0.009)	(0.014)	(0.019)
1	0.555***	-0.023	1.270***	-0.025	0.019	0.014	-0.003	0.020	0.055***	0.004	0.005	-0.012	0.413***	0.004
	(0.056)	(0.043)	(0.033)	(0.044)	(0.012)	(0.021)	(0.004)	(0.018)	(0.014)	(0.031)	(0.012)	(0.018)	(0.041)	(0.059)
2+	0.550***	-0.091	1.502***	-0.047	-0.006	0.021	-0.011	0.045***	0.026*	0.090**	0.008	-0.025	0.334***	0.039
	(0.069)	(0.061)	(0.036)	(0.045)	(0.024)	(0.024)	(0.013)	(0.014)	(0.015)	(0.044)	(0.020)	(0.019)	(0.053)	(0.046)
R^2	0.489		0.812		0.040		0.018		0.266		0.013		0.266	
N	6,409		1,814		6,409		6,409		6,409		6,409		6,409	

Panel B: Cross Discontinuity via Criminal History

	Incarceration		Log(Prison Months)		Object to CH		CH Amended		Firearm		Upward Departure		Downward Departure	
	White	BW Gap	White	BW Gap	White	BW Gap	White	BW Gap	White	BW Gap	White	BW Gap	White	BW Gap
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
-1	0.095***	0.029	0.363***	-0.019	0.023**	0.016	0.002	0.003	-0.069***	0.021	0.027***	0.005	0.028***	-0.001
	(0.025)	(0.046)	(0.036)	(0.065)	(0.011)	(0.018)	(0.010)	(0.014)	(0.007)	(0.022)	(0.009)	(0.017)	(0.007)	(0.017)
0	0.503***	0.034	0.417***	0.031	0.096***	-0.001	0.018	0.015	-0.043***	-0.009	-0.020***	0.006*	0.421***	-0.090**
	(0.027)	(0.041)	(0.029)	(0.038)	(0.020)	(0.030)	(0.012)	(0.021)	(0.015)	(0.017)	(0.004)	(0.004)	(0.036)	(0.040)
1	0.639***	-0.011	0.537***	0.002	0.038**	0.021	-0.014*	-0.012	-0.040**	-0.029*	-0.021***	0.013	0.290***	-0.014
	(0.035)	(0.045)	(0.030)	(0.036)	(0.018)	(0.020)	(0.008)	(0.012)	(0.015)	(0.016)	(0.004)	(0.008)	(0.034)	(0.049)
R^2	0.467		0.788		0.038		0.020		0.255		0.015		0.230	
N	6,409		1,814		6,409		6,409		6,409		6,409		6,409	
Means (Dep Var)	0.283		3.478		0.049		0.024		0.049		0.019		0.114	

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The sample is restricted to aggravated battery cases and $n = 6,409$. For each outcome, we show both the effects of proximity to the discontinuity for white offenders and the Black-White Gap. In columns 11 to 14, upward and downward departure are indicator variables for whether the sentence departs in a given direction either along the intensive or extensive margin. The presented coefficients control for the usual set of covariates. Standard errors are shown in parentheses and are clustered at the district level.