

Happy Birthday, Go to Jail: Age-based Left-digit Bias in Criminal Sentencing

Zakary Campbell

October 3, 2023

Abstract

Judicial discretion allows judges to make nuanced decisions, taking into account details of legal cases that are not directly covered by law. However, judicial discretion can also expose behavioral biases and lead to irrational decision-making. I test for the existence of a particular behavioral bias: age-based left-digit bias. Specifically, I use a regression discontinuity design to test for changes in sentencing decisions occurring on an offenders 20th birthday using data on sentencing decisions from the state of Pennsylvania. I find that an offender sentenced just after his/her 20th birthday is 3.5 percentage points more likely to be sentenced to incarceration than an offender sentenced just before his/her 20th birthday. I test for evidence of conscious mechanisms underlying this effect and find no such evidence, leaving an unconscious bias as the best available explanation.

1 Introduction

Judges have substantial discretion when levying criminal sentences, enabling them incorporate individual circumstances specific to a case into their decisions. However, judges are human and are therefore subject to the same behavioral biases as other people. Given the important consequences of judicial decisions, it is vital to understand the ways in which judicial discretion can lead to irrational or biased behavior in criminal sentencing.

Any changes in sentencing decisions could have dramatic long run impacts on offenders' lives. For example, early experimental evidence suggests that employers find former convicts to be less attractive job candidates (Finn and Fontaine 1985). Empirical evidence supports these experimental findings, as incarceration is found to be associated with reductions in future income and employment (Freeman 1992; Waldfogel 1994; Mueller-Smith 2015; Harding et al. 2018).

Changes in incarceration may also affect recidivism. An increased likelihood of incarceration has been associated with higher rates of recidivism, an increased sentence length has been associated with lower rates of recidivism (Myers 1983, Mueller-Smith 2015). On the other hand, Bhuller et al. (2020) find that incarceration leads to lower rates of recidivism; however, it is worth noting that this result is from Norway and may not generalize to the United States given the significant differences in prison systems and sentencing between the two countries.

This paper contributes to the growing literature documenting the impact of judicial discretion on the outcomes of sentencing decisions by estimating the existence and extent of age-based left-digit bias in criminal sentencing. Left-digit bias is a particular behavioral bias whereby agents pay more attention to the leftmost digit of numbers than the other digits when making decisions, leading to behavior that changes more drastically across numerical differences that include leftmost-digit changes than across similarly-sized differences without left-digit changes.

I use a regression discontinuity design to test for age-based left-digit bias in criminal sentencing in Pennsylvania. Specifically, I test for a discontinuous jump in the probability of offenders being sentenced to incarceration just after their 20th birthday relative to those sentenced just before their 20th birthday. To preview my results, my main specification does find evidence of left-digit bias; the estimated probability of incarceration increases by 3.5 percentage points for those offenders sentenced on their 20th birthday relative to those sentenced just before, representing a large change of about 7.2 percent in incarceration probability on offenders' 20th birthdays. I also test for changes in the length of incarceration sentences on offenders' 20th birthday but find no evidence of such changes.

Some of the change in incarceration probability is explained by a discontinuous increase in the severity of offenders' prior record scores on offenders' 20th birthday. However, even after adding controls for offenders' prior records, evidence for left-digit bias remains.

I test for similar effects on offenders' 19th, 21st, 22nd, and 30th birthdays and find no evidence of changes in sentencing probability. Null results on the 19th, 21st, and 22nd birthdays provide evidence that this is something different than a simple "birthday effect," and the null result on the 30th birthday suggests that left-digit bias may be unique to the 20th birthday.

I test for multiple conscious mechanisms to check whether the estimated left-digit bias is at least partially the result of some conscious consideration by judges, lawyers or offenders, themselves. I find no evidence of any of these mechanisms, which leaves a simple unconscious behavioral bias the best available explanation.

I theorize that age-based left-digit bias exists due to a magnification of perceived differences resulting from the fact that offenders are teenagers in the days leading up to their 20th birthday but are in their twenties in the days immediately following their 20th birthday. Despite the fact that underlying characteristics of

individuals presumably do not change immediately and drastically when a teenager becomes a 20-year-old, teenagers as a group may be perceived as fundamentally different from people in their twenties as a group, which could lead a person aged 19-years and 0-days being treated differently from a person aged 20-years and 0-days even if they are otherwise similar people.

This is related to the idea of “coarse thinking” whereby individuals “group situations into categories and apply the same model of inference to all situations within a category.” (Mullanaithan et al. 2008). In this case, for example, one may believe that teenagers are less mature and should not be held responsible for their actions to the same degree as people in their twenties. Alternatively, one may believe that teenagers are still developing cognitively and need to receive harsher punishments now to dissuade offenses in the future. In either case, under a model of coarse thinking, a judge deciding how to sentence to two otherwise similar individuals who differ only by the fact that one is barely under 20 years old and the other is barely over 20 years old could make two significantly different decisions.

Furthermore, models of coarse thinking are a subset of a broader category of behavioral models that utilize the concept of rational inattention, the idea that decision-makers have a limited amount of attention and therefore cannot process all available information and so must choose which sets of information to attend to in the decision-making process. Judges may indeed be fully rational but find it impossible to gather every relevant bit of information related to the crime committed, the context surrounding the crime, and the background of the offender. On the other hand, the mere fact of whether or not an offender is a teenager is readily accessible and easy to apply to the decision-making process.

This paper most directly contributes to the literature on the impact of judicial discretion on sentencing decisions. Perhaps the most well-documented example is that Israeli judges gave increasingly unfavorable rulings in parole decisions as time since their last food break elapsed (Danziger et al. 2011).¹ Additional research has found that sentencing decisions are influenced by media coverage of other crimes (Phillipe and Ouss 2018), proximity to elections (Abrams et al. 2019), the outcomes of local and in-state sports games (Eren and Mocan 2018; Chen and Loecher 2016; Chen et al. 2016), weather (Chen and Loecher 2016; Chen et al. 2016), and location of the trial (Chen et al. 2016). In each of these cases, sentences are partially determined by what I will call extralegal factors: factors that bear no relation to the seriousness of the crime being prosecuted or the level of the offenders’ threat to society.

This paper differs from the above papers in an important way. The variable across which I measure variation—age—is broadly relevant to the level of threat that an offender poses to society. However, any association between threat and age should not change drastically from the day before to the day of an

¹Note that these results have since been disputed on the basis of case ordering in the study being non-random and the effect having alternative explanatory factors (Weinshall-Margel and Shapard 2011; Glöckner 2023)

offender’s 20th birthday. Therefore, rather than documenting the impact of a purely extralegal factor on sentencing, this paper documents the impact of an extralegal attribute of a relevant factor.

This paper also contributes to the general literature documenting instances of left-digit bias. Left-digit bias has been documented in a variety of different circumstances. Lacetera et al. (2012) document discontinuous drops in the sales prices of used cars at 1,000-mile and 10,000-mile thresholds. Agents also appear to perceive one-cent differences in prices that change the leftmost digit (e.g. \$2.99 to \$3.00) to be larger than they are (Thomas and Morwitz 2005; Manning and Sprott 2009). Expertise in a field does not appear to remove this bias, as world cup alpine skiers discontinuously change their risky behavior as they cross tenths of a second thresholds in time difference from the leader’s time (Foellmi et al. 2016). Most similar to the present research are two papers from the health domain: patients admitted just after their 40th birthday were more likely to be tested for and diagnosed with heart disease than patients admitted just before their 40th birthday (Coussens 2017), and heart attack patients were more likely to undergo coronary artery bypass surgery if admitted just after their 80th birthday (Olenski et al. 2020). This paper contributes to the existing literature by documenting another example of left-digit bias, and crucially an example of the bias in experts of their field who are specifically tasked with a role of being unbiased and objective.

The remainder of this paper proceeds as follows. Section 2 describes the background and process of sentencing in Pennsylvania. Section 3 describes the data set used for analysis. Section 4 describes my empirical strategy. Section 5 presents my findings. Section 6 discusses the findings and concludes.

2 Background

The Pennsylvania Commission on Sentencing (hereafter “the Commission”) was established in 1978 with the intention “to create and maintain a consistent and rational statewide sentencing policy through the adoption of guidelines that promote fairer and more uniform sentencing throughout the Commonwealth.”²

One of the responsibilities of the Commission is to establish sentencing guidelines for judges to follow when sentencing felony and misdemeanor convictions. Under these guidelines, each offender being sentenced is assigned two integer scores that partially determine a recommended range of sentencing. The first score is the Offense Gravity Score (OGS) which describes the seriousness of the current offense and falls between 1 and 14, where higher numbers correspond to more serious offenses. The second score is the Prior Record Score (PRS) which describes the seriousness and extent of the offender’s prior record and falls between 0 and 8, where higher numbers correspond to more serious offenses. The sentencing form in Appendix A1 details the process of calculating an offender’s PRS. Given the number of possible offenses for which one can be

²This quote is taken from the Commission’s website: <http://pcs.la.psu.edu/about-the-commission>

sentenced, a detailed relation between offenses and OGS is left to Appendix A2, but some examples of each possible OGS under the guidelines established in 1997 are listed in Table 1.

In addition to the OGS and PRS, guidelines are based on whether the judge determines the circumstances of the offense to be normal, aggravating, or mitigating. A few examples of mitigating circumstances are that the offender is in poor health, the offender has a good reputation in the community, or the offender is old. Some examples of aggravating circumstances are that the offender is a poor candidate for rehabilitation, the offender did not cooperate with police or the prosecution, or the crime was racially motivated. For a more complete list of mitigating/aggravating circumstances, see Appendix A3.

Finally, a “deadly weapon enhancement” is added to the recommended sentence if the offender was in possession of a deadly weapon, involved youths in drug trafficking, or trafficked in drugs within 1000 feet of a school.

Given a particular combination of OGS, PRS, determination of circumstances, and whether a deadly weapon enhancement is to be applied, the guidelines established by the Commission specify a range of appropriate corresponding punishments. Table 1 presents a sentencing matrix for the set of guidelines established in 1997 for cases in which no deadly weapon enhancement is to be applied. While judges do have the freedom to depart from these guidelines, any such departure must be accompanied by a written statement detailing the reasons for said departure.

As noted above, these guidelines were established with the intent to produce uniformity and fairness in sentencing decisions. However, the guidelines do allow for flexibility, both in whether an offender of a particular profile is sentenced to incarceration and in the length of incarceration to which an offender of a particular profile is sentenced. Thus, it remains possible that extralegal factors that influenced sentencing prior to the implementation of sentencing guidelines will continue to do so after the implementation of sentencing guidelines.

3 Data

In addition to establishing guidelines, the Commission is responsible for collecting data on sentencing decisions in order to monitor conformity to guidelines and evaluate their effectiveness. The data include all felony and misdemeanor offenses that are sentenced in Common Pleas Court and reported to the Commission. The Common Pleas Court is the state trial court system of general jurisdiction in Pennsylvania. This distinguishes it from the lower-level magisterial courts. For the purposes of this paper, the important characteristic of the Common Pleas Court is that it is the court which hears all felony cases and most misdemeanor cases.

In my analysis, I use all offenses reported to the Commission during calendar year 1998. The raw data include 111,803 offenses. However, in some cases, multiple offenses exist for a single judicial proceeding, so I collapse the data to the judicial proceeding level since all offenses in a single judicial proceeding are sentenced simultaneously. There are 65,448 judicial proceedings in total in the data. Because I use a data-driven method to determine bandwidth for the regression discontinuity design, the estimation sample varies depending on the outcome variable and specification used. For my primary specification and the primary outcome variable, probability of incarceration, the selected bandwidth results in an estimation sample of 37,543 judicial proceedings .

Philadelphia Municipal Court sentences and sentences given by district magistrates, which may include DUI and other misdemeanor offenses, are not reported to the Commission and therefore do not appear in the data. Additionally, Murder 1 and Murder 2 sentences are not required to be reported to the commission, as they do not fall under the guidelines; however they are encouraged to be reported, and many such sentences do appear in the data. Finally, at the time that the data used in this paper was collected, the Commission did not have an audit system to determine the extent of non-reporting, so it is not clear what fraction of the data that should have been reported is not available. It seems unlikely that non-reporting would be a major threat to validity in this context, given that probability of non-reporting is likely smooth across the RD threshold; I do test for this to some degree using a manipulation test.

One aspect of the data worth noting is that, due to the Commission's regular reviews and revisions of guidelines, there were three different sets of guidelines used in the judicial proceedings contained in this data set. The set of sentencing guidelines used depends on the date of the offense being sentenced. Offenses committed between August 9, 1991 and August 11, 1994 were subject to the 1991 sentencing guidelines. Offenses committed between August 12, 1994 and June 12, 1997 were subject to the 1994 sentencing guidelines. And offenses committed on or after June 13, 1997 were subject to the 1997 sentencing guidelines.

For each judicial proceeding, the data includes every characteristic that is directly relevant to the recommended range of sentences from the Commission's guidelines: the offender's prior record score, the highest offense gravity score among the offenses being sentenced, whether aggravating or mitigating circumstances were applied, whether a deadly weapon enhancement was applied, and whether the judge gave a sentence that falls outside of the recommended guidelines. Importantly, each observation also includes data about the sentencing itself, including the date, location, and outcome. Additionally, there is a small set of offender demographic data: race, gender, and date of birth.

4 Empirical Strategy

I estimate the extent of left-digit bias using a regression-discontinuity design. I use the day of sentencing relative to an offender’s 20th birthday as the running variable (X_{it}), where negative numbers refer to the number of days before an offender’s 20th birthday that a sentencing occurs, zero refers to a sentencing that occurs on the day of the offender’s 20th birthday, and positive numbers refer to the number of days after an offender’s 20th birthday that a sentencing occurs. The RD threshold in this case is at $X_{it} = 0$.³

I use the methods described in Calonico et al. (2019) to estimate the average treatment effect at the RD threshold. That is, I first estimate the following model:

$$Y_{itg} = \alpha + T_{it}\tau + X_{it}\beta_- + T_{it}X_{it}\beta_+ + \gamma_g + \epsilon_{itg} \quad (1)$$

where Y_{itg} is an outcome variable for person i sentenced at time t under guidelines g , X_{it} denotes the running variable measuring the day of sentencing relative to the offender’s 20th birthday as described above, T_{it} is an indicator variable for $X_{it} \geq 0$, γ_g are fixed effects for the set of sentencing guidelines used for sentencing, and ϵ_{itg} is an error term. Additionally, I use a triangular kernel in the estimation so that offenses nearer the threshold are weighted more heavily. τ is the parameter of interest and measures the discrete change in the outcome variable that occurs at the RD threshold; I refer to this parameter as the left-digit bias parameter, as it measures the estimated difference in outcomes that occurs as a result of an offender being sentenced after reaching age 20.

In addition to the model shown in Equation 1, due to an imbalance at the RD threshold which I describe in detail in Section 5 below, I also estimate the model while including fixed effects for prior record score:

$$Y_{itpg} = \alpha + T_{itpg}\tau + X_{itpg}\beta_- + T_{itpg}X_{itpg}\beta_+ + \gamma_g + \eta_p + \epsilon_{itpg} \quad (2)$$

where p indexes the prior record score of offender i , and η_p are fixed effects for PRS. I include results from both models in Section 5, but I consider Equation 2 my primary specification since it addresses concerns with imbalance in predetermined variables.

I use a data-driven procedure that minimizes the asymptotic mean squared error of the treatment effect estimator to determine bandwidth on each side of the threshold for each estimation (see Calonico et al. 2014 for a detailed explanation). Note that this results in differing estimation samples depending on which

³Offenders with $X_{it} = 0$ —those sentenced on their 20th birthday—are considered above the threshold.

outcome variable is being estimated and which specification is used, so estimation sample size is reported for each estimate throughout Section 5.

Since the running variable in this RD specification is discrete, I cluster standard errors on the value of X_{it} (Lee and Card 2008).

5 Results

5.1 Descriptive Statistics

Table 2 lists the means of a set of descriptive variables. Column 1 lists the means across all judicial proceedings in the data, and Column 2 lists the means across the judicial proceedings in the sample used to estimate left digit bias on probability of incarceration.

Compared to the universe of offenders, the offenders in the main estimation sample are younger, less likely to be white, less likely to have a prior record, and they are being sentenced for more serious crimes. These differences are something to keep in mind for any future work that estimates the impact of left digit bias on longer term outcomes.

5.2 Main Results

I first estimate Equation 1 to find the extent of left-digit bias in sentencing offenders to incarceration. These results are presented in Figure 1 and Column 1 of Table 3. The point estimate of 0.046 indicates an estimated left-digit bias parameter of 4.6 percentage points; that is, an offender sentenced on their 20th birthday has a 4.6 percentage point higher probability of being sentenced to incarceration than an offender sentenced just before their 20th birthday. This represents an increase of about 9.7 percent from the estimated 47.6 percent probability of incarceration to the left of the RD cutoff. The result is statistically significant at the 1 percent level.

I also estimate the extent of left-digit bias on decisions regarding the length of incarceration, both including and excluding sentences of zero incarceration time. The main results are presented in Figure 2 and Column 1 of Table 4. Neither estimate, whether including or excluding zeros, is statistically significantly different from zero as the estimates are quite noisy.

These estimates suggest that left-digit bias does play a role in sentencing. An offender who is sentenced just after their 20th birthday is more likely to be incarcerated. However, it appears that the length of incarceration after reaching age 20 for the compliers—those who would not be sentenced before their 20th birthday but would be after—is minimal since there is no statistically detectable impact on incarceration

length despite a sizable increase in the probability of incarceration.

Next, I check for balance in predetermined variables across the RD threshold. While there is not a rich set of demographic variables available, I am able to test balance of race, gender, OGS, PRS, and an indicator variable for a nonzero prior record. Results are shown in Column 1 of Table 5. All but one of the variables tested are balanced across the RD threshold. PRS increases by 0.092 across the threshold, and the increase is statistically significant. This result is shown graphically in Figure 3.

Since PRS is a qualitative rather than quantitative measure, the precise meaning of an increase in 0.092 at the threshold is not easy to concern. With this in mind, Table 6 shows the estimated change in the fraction of offenders with each possible PRS at the threshold. From these results, it is clear that the imbalance is driven primarily by a statistically significant increase in the fraction of offenders with a PRS of 2 and in the fraction of offender with a PRS of 5 at the threshold. Figure 4 plots the results from the regressions for these two scores. While visual inspection suggests that the results for PRS values of 5 may be due to poor linear fit, there is a clear and large visual jump at the threshold for PRS values of 2.

While the increase in PRS across the RD threshold is small, it is concerning. It could be the case that the increase in incarceration probability is driven by this increase in PRS, invalidating the results entirely. To test for these concerns, I estimate the Equation 2:

$$Y_{itpg} = \alpha + T_{itpg}\tau + X_{itpg}\beta_- + T_{itpg}X_{itpg}\beta_+ + \gamma_g + \eta_p + \epsilon_{itpg}$$

I also estimate an additional specification that includes fixed effects for OGS in addition to the fixed effects for PRS.

Table 7 lists the results. Column 1 of Table 7 lists the results from Table 3 without PRS controls for comparison, Column 2 includes PRS fixed effects, and Column 3 includes OGS and PRS fixed effects. Results are also shown in Figure 5; note that Figure 5 and any other figures showing results from a regression with PRS fixed effects show means of the dependent variable after first residualizing the dependent variable using the covariates from Equation 2.

As expected, including PRS fixed effects attenuates the magnitude of the estimated left-digit bias parameter, with a point estimate of 3.5 percentage points, or a 7.4 percent on the estimated 47.5 percent incarceration probability to the left of the RD cutoff. However, the estimate does remain both statistically significant and practically meaningful, meaning that the change in PRS at the threshold cannot explain all of the left-digit bias observed in the main results; left-digit bias exists even within a given PRS. Results remain stable when adding OGS fixed effects.

Given the imbalance in PRS across the threshold, all regressions in the remainder of this paper include PRS fixed effects.

One potential challenge to the hypothesized mechanism of the left-digit bias finding is that it could be an effect that occurs more generally whenever an offender’s age changes rather than an effect that is specific to an offender’s 20th birthday. To check for this, I estimate the same equations as above, replacing the running variable with the day of sentencing relative to various birthdays surrounding an offender’s 20th birthday. Specifically, I use offenders’ 19th, 21st, and 22nd birthdays. Additionally, I use offenders’ 30th birthday to check if a left-digit bias effect exists more generally on birthdays which result in a change in the leftmost digit of an offender’s age.

Results are presented in Figure 6 and Columns 2-5 of Table 1. For the 19th, 21st, and 22nd birthdays—the left-digit constant birthdays—estimates are all small and not statistically significant at the five percent level. The largest of these point estimates is 1.2 percentage points on the 19th birthday. Thus it does not appear that the effect observed in the main results can be explained by a general “birthday effect.”

For the 30th birthday—the left-digit changing birthday—the point estimate is larger at -2.6 percentage points but is also not statistically significant. This may be because people in their twenties are not considered different from people in their thirties to the same extent that the distinction is drawn between teenagers and people in their twenties.

5.3 Mechanisms

Next, I test for a set of potential explanatory mechanisms through which left-digit bias may arise. As mentioned in the background section, judges must determine whether the circumstances surrounding a case are normal, mitigating, or aggravating. If the circumstances are deemed to be mitigating (aggravating), both the lower and the upper bound of the range of sentences prescribed by the Commission are decreased (increased). Among the list of reasons that a judge can give for determining mitigating or aggravating circumstances are “offender is old” and “offender is young.”⁴ If it is the case that judges are consciously determining that an offender’s status as a teenager is a mitigating circumstance, then they should be applying mitigating circumstances at different rates on either side of the RD threshold.

I test this hypothesis and report results in Panel A of Table 10 and illustrated in Figure 7. Estimated left-digit bias parameters on the probability of applying each of normal, mitigating, or aggravating circumstances in a judicial proceeding are very close to zero and not statistically significant.

Another possibility is that judges’ probabilities of applying a sentence outside of the recommended guidelines change on an offender’s 20th birthday, either by decreasing the likelihood of applying a sentence below

⁴See Appendix A3 for a full list of reasons that a judge can give for applying mitigating or aggravating circumstances.

the guidelines, increasing the likelihood of applying a sentence above the guidelines, or both. As was the case with determining mitigating or aggravating circumstances, two of the reasons that a judge can give for applying a sentence above or below the guidelines are “offender is old” and “offender is young”.⁵

I test for changes in guideline adherence at the RD threshold. Results are reported in Panel B of Table 10 and illustrated in Figure 8. The results are similar to the results on circumstances. The point estimates for each outcome—applying a sentence outside the guidelines, applying a sentence above the guidelines, and applying a sentence below the guidelines—are near zero and are not statistically significant.

Together these results suggest that left-digit bias does not arise through a conscious change in applications of circumstances or departures from recommended guidelines. Rather, the judges appear to work within the guidelines while applying harsher sentences to offenders after their 20th birthdays.

It could also be that left-digit bias arises in this case from a reaction to external pressure. Judges in Pennsylvania Common Pleas court are periodically subject to retention elections wherein their constituency votes for whether or not to retain the judges in their current positions. Even if the judges, themselves, are fully rational and have perfect information, if they believe that their constituency’s collective preferences exhibit left-digit bias and they factor their own potential for not being retained in a future election into their sentencing decisions, their sentencing decisions could exhibit left-digit bias.

I hypothesize that if it is indeed the case that left-digit bias arises from external electoral pressure, then left-digit bias should be most stark in the cases that are most visible to a judge’s constituency. While there is nothing in the data set that directly measures the visibility of a particular sentencing decision, I posit that, due to their relative seriousness, felony cases are more visible on average than misdemeanor cases. Intuitively, felony cases should be more discussed and reported in news and other media, as well as via word-of-mouth.

I estimate Equation (2) separately using the sample of misdemeanor offenses and the sample of felony offenses. Results are reported in Table (8) and illustrated in Figure (9). The estimated left-digit bias parameter for misdemeanor cases, 4.8 percentage points, is much larger than for felony cases, 2.6 percentage points, despite the fact that the baseline incarceration rates for misdemeanors is much lower than for felonies. Additionally, the estimated effect on felony cases is not statistically significant. With such a large effect on misdemeanor cases relative to felony cases, it is difficult to justify a belief that left-digit bias arises from external electoral pressure.

Judges are not the only agents in this scenario who can consciously affect the extent of left-digit bias in sentencing. It is possible that lawyers or offenders are making explicit arguments that sentences should be lighter or harsher on the basis of an offender being a teenager or no longer being a teenager. If these arguments are being made and judges are being swayed by them, it is reasonable to expect that similar

⁵See Appendix A3 for a full list of reasons that a judge can give for departing from guidelines.

arguments would be made regarding offenders' ages at the time they committed the offense. In fact, it can be reasonably argued that offenders' age at the time of offense should be more relevant than their age at the time of sentencing.

Figure (10) shows the distribution of time between an offense and a sentence. There is wide variation in the timing of a sentencing relative to the date of offense, so the distribution of offenders at various points of offense dates relative to 20th birthdays should vary noticeably from the distribution of offenders at various points of sentencing dates relative to 20th birthdays.

To test for whether left-digit bias arises from explicit arguments by offenders or lawyers, I estimate an alternative version of Equation (2) using day relative to offense date as the running variable in place of day relative to sentencing date. Figure (11) plots the results. With a point estimate of 1.1 percentage point and a standard error of 0.014, this estimate is much smaller than the estimate from the main specification and is not statistically significant. Unless judges are simply not swayed by arguments based on age at the time of offense to the same degree they are swayed by arguments based on age at the time of sentencing, this suggests that left-digit bias is not rooted in explicit arguments made by lawyers or offenders.

Another possibility is that plea bargains are being given at a higher rate prior to offenders' 20th birthdays than after offenders' 20th birthdays, either because they are being offered at a higher rate, they are being accepted at a higher rate conditional on an offer being made, or a combination of both.

To test for this possibility, I estimate the extent of left-digit bias on the probability of receiving a plea bargain. Results are plotted in Figure (12). The point estimate is very small, at 0.9 percentage points, and is not statistically significant, suggesting that offenders are no more or less likely to receive a plea bargain immediately after their 20th birthday than immediately before.

The above findings provide little evidence that age-based left-digit bias is rooted in any conscious decision-making process. None of the mechanisms that I tested for yielded statistically significant results in support of the hypothesized mechanism. Thus, the best remaining explanation for the measured left-digit bias is an unconscious behavioral bias similar to most prior studies of left-digit bias.

Finally, in addition to the above tests for conscious mechanisms, I test for one mechanism that can either be conscious or unconscious and has been found elsewhere to play a role in sentencing decisions: racial bias (Rachlinski et al. 2009). In addition to playing a direct role in sentencing, race was found to interact with sentencing effects based on extralegal factors in at least one other study, which found that black defendants were more severely impacted by the extralegal factors than other defendants (Eren and Mocan 2018).

To test for an interaction between race and age-based left-digit bias, I estimate Equation 2 separately for the sample of white offenders and the sample of non-white offenders. Results are reported in Panel A of Table 9 and illustrated graphically in Figure 13. The main results appear to be driven more by white

offenders than by non-white offenders. White offenders are an estimated 5.0 percentage points more likely to be incarcerated just after their 20th birthday relative to just before. The point estimate for non-white offenders is small, at 0.9 percentage points, and is not statistically significant at the 5 percent level.

This result differs from Eren and Mocan (2018) in that the effect is less stark among white offenders than among non-white offenders. However, since it is not clear whether left-digit bias is a result of harsher sentences after offenders' 20th birthdays, more lenient sentences before offenders' 20th birthdays, or a combination of both, it may still be the case that non-white offenders are relatively worse off than their white counterparts as a result of left-digit bias.

5.4 Validation and Robustness Checks

As a robustness check, I estimate the main results while varying the bandwidth and the degree of the polynomial fitted on either side of the threshold. Table 11 presents these results. Estimates remain stable and significant across all bandwidths for the linear polynomial. When a quadratic term is included, point estimates remain similar to those in the linear specification, but half of the estimates are no longer statistically significant due to a loss of precision in the estimates. Despite the loss of statistical significance in some quadratic specifications, the stability in point estimates across all specifications generally supports the main results.

Next, I check for manipulation in the running variable. It is possible that judges, lawyers, or offenders, themselves, may have some control over the precise timing of a judicial proceeding and may have a preference for the proceeding occurring either before or after the offender's 20th birthday. If the proceeding date is sufficiently manipulable, the RD estimates may simply be a rational response to a changing composition across the threshold. I test for such manipulation by testing for evidence of a discontinuity in the density function at the RD threshold (Cattaneo et al. 2019). Figure 14 presents a histogram of days of sentencing relative to offenders' 20th birthdays. There is insufficient evidence to reject the null hypothesis of no manipulation, as the test yields a p-value of 0.121.

Another potential challenge to the results is that they may be partially driven by a different kind of birthday effect. That is, it may be the case that incarceration probability increases on birthdays as a general rule relative to incarceration probability on all other days, leading to an increase in estimated left-digit bias. Given that there are only 11 offenders sentenced on their 20th birthday in the sample, this seems unlikely to be a major contributing factor; furthermore, the visual evidence from Figure 1 suggests that offenders sentenced on their 20th birthday likely have little impact on the estimates. However, offenders in the data who are sentenced on their birthday are about 5.1 percentage points more likely to be incarcerated than other

offenders, a difference that remains stable when including a polynomial for age in days in the regression.⁶ Thus, I estimate left-digit bias on incarceration probability while excluding offenders who were sentenced on their birthday. This yields an estimated left-digit bias parameter of 3.4 percentage points with a standard error of 1.5 percentage points, suggesting any difference in sentencing induced by an offender’s birthday has a negligible impact on estimates of left-digit bias.

5.5 The Effects of Incarceration and Why Left-Digit Bias Matters

An ideal extension of the preceding analysis would include an analysis of post-sentencing outcomes to test for longer-term impacts of age-based left-digit bias in sentencing. Unfortunately due to data constraints, I am not able to do so.

Of course, there is an extensive existing literature on the impacts of incarceration which can inform some ways in which the individuals impacted by left-digit biased sentencing decisions are affected.

The immediate and obvious cost is the direct cost of housing inmates, including staff payroll costs, facility maintenance, food, health care, and other services provided to inmates. A 2015 study found that states on average spent \$33,274 per inmate to house an inmate for one year, and for the state of Pennsylvania that figure was \$42,727 (Mai and Subramanian 2017).

However, that is far from the only cost, as incarceration also results in many indirect costs. Incarcerated individuals lose employment and earnings, both while serving their sentences and in the years following their sentences (Finn and Fontaine 1985; Freeman 1982; Waldfoegel 1994; Mueller-Smith 2015; Harding et al. 2018). Some studies also find that incarceration increases the probability of re-offending in the future (Myers 1983, Mueller-Smith 2015), though some have also found the opposite (Witte 1980, Bhuller et al. 2009). Increased recidivism imposes a direct cost in the form of additional crime as well as an indirect cost of additional judicial resources. Mueller-Smith (2015) also finds that incarceration causes increased food stamp usage, lower rates of marriage, and higher rates of divorce, each of which imposes additional social costs. Combining across several sources of social costs of incarceration, Mueller-Smith (2015) finds that “[u]sing the most conservative estimates ... a one-year prison term generates \$56,200 to \$66,800 in costs.”

It is also worth emphasizing that the individuals in this analysis who are impacted by age-based left-digit bias are mechanically among the youngest adult offenders, being near their 20th birthdays. If labor effects, impacts on re-offense, or other social costs persist throughout an offender’s lifetime, then left-digit biased sentencing decisions could represent especially costly sentencing decisions.

All of this is not to suggest that incarceration is an inherently bad thing, of course. Incarceration

⁶Controlling for age in days yields an estimate of 5.1 percentage points. Controlling for a quadratic polynomial of age in days yields an estimate of 5.2 percentage points. Controlling for a cubic polynomial of age in days yields an estimate of 5.3 percentage points.

can have benefits in the form of deterring future crime or rehabilitating offenders. Instead, the important takeaway is that incarceration can be costly, so making the right decision is incredibly important when the wrong decision could have serious and lasting consequences. It is difficult to believe that the optimal sentencing curve, taking into consideration both costs and benefits of incarceration, would have such a stark discontinuity on an offender's 20th birthday. It is both possible that those below the threshold are being sentenced too lightly and that those above the threshold are being sentenced too harshly compared to an optimal world, but it is unlikely that neither is true.

6 Conclusion

Results suggest that age-based left-digit bias plays a notable role in sentencing decisions. The probability of incarceration increases by 3.5 percentage points, or 7.4 percent, on an offender's 20th birthday, though there is no detectable corresponding change in sentence length. This is another example in a growing literature documenting the impact of extralegal factors on sentencing decisions.

I tested for several candidate conscious mechanisms to potentially explain the existence of left-digit bias as a result of an intentional conscious process but was unable to find evidence of said mechanisms. This leaves a simple behavioral bias as the best explanation for the results, similar to most prior studies of left-digit bias.

Discretion is important to the judicial process because it is difficult—arguably impossible—to create a function mapping all possible sets of relevant circumstances surrounding a legal case to a deterministic outcome. Discretion allows judges to process the details that the law does not address and apply the facts in a way that the law deems fair. However, as shown in this and other papers, discretion comes with the unintended consequence of decisions made on the basis of extralegal factors.

It is not clear how best to address this bias through policy or even whether it would be optimal to address it at all. Restrictions on judicial discretion would limit judges' ability to make decisions based on extralegal factors but would also limit their ability to apply a nuanced understanding of the circumstances surrounding the case when determining their sentencing decision. Given the inherent behavioral biases in human behavior, it is unlikely that one could fully remove the drawbacks of judicial discretion without also fully removing the benefits of judicial discretion. If this is the case, then some suboptimal sentencing decisions may exist on an individual level even when the sentencing policy as a whole is optimal.

Significantly more work can be done to determine the costs and benefits of age-based left-digit bias. Costs and benefits can come in the form of foregone earnings, increased uptake of social programs, increased or decreased future crimes, increased or decreased quality of parenting for offenders' children, and the direct cost

of housing inmates, among other things. The persistence of costs and benefits are a particularly important characteristic to study in this context, given the young age of offenders who are impacted by age-based left-digit bias.

References

- Abrams, D., Galbiati, R., Henry, E., & Philipe, A. (2020). Electoral Sentencing Cycles. CEPR Discussion Paper 14049.
- Bhuller, M., Dahl, G., Løken, K., & Mogstad, M. (2020). Incarceration, Recidivism, and Employment. *Journal Of Political Economy*, 128(4), 1269-1324.
- Calonico, S., Cattaneo, M., & Titiunik, R. (2014). Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs. *Econometrica*, 82(6), 2295-2326.
- Calonico, S., Cattaneo, M., Farrell, M., & Titiunik, R. (2019). Regression Discontinuity Designs Using Covariates. *The Review Of Economics And Statistics*, 101(3), 442-451.
- Chen, D., & Loecher, M. (2016). Mood and the Malleability of Moral Reasoning. TSE Working Paper N. 16-707.
- Chen, D., Loecher, M., Barry, N., Buchanan, L., & Bakhturina, E. (2016). Events Unrelated to Crime Predict Criminal Sentence Length. SSRN Electronic Journal.
- Coussens, S. (2017). Behaving Discretely: Heuristic Thinking in the Emergency Department. Job Market Paper.
- Danziger, S., Levav, J., & Avnaim-Pesso, L. (2011). Extraneous factors in judicial decisions. *Proceedings Of The National Academy Of Sciences*, 108(17), 6889-6892.
- Eren, O., & Mocan, N. (2018). Emotional Judges and Unlucky Juveniles. *American Economic Journal: Applied Economics*, 10(3), 171-205.
- Finn, R., & Fontaine, P. (1985). The Association between Selected Characteristics and Perceived Employability of Offenders. *Criminal Justice And Behavior*, 12(3), 353-365.
- Foellmi, R., Legge, S., & Schmid, L. (2016). Do Professionals Get It Right? Limited Attention and Risk-

taking Behaviour. *The Economic Journal*, 126(592), 724-755.

Freeman, R. (1992). Crime and the Employment of Disadvantaged Youths. In G. Peterson & W. Vroman, *Urban Labor Markets and Job Opportunity* (pp. 201-237). Washington D.C.: Urban Institute Press.

Lacetera, N., Pope, D., & Sydnor, J. (2012). Heuristic Thinking and Limited Attention in the Car Market. *American Economic Review*, 102(5), 2206-2236.

Lee, D., & Card, D. (2008). Regression discontinuity inference with specification error. *Journal Of Econometrics*, 142(2), 655-674.

Manning, K., & Sprott, D. (2009). Price Endings, Left-Digit Effects, and Choice. *Journal Of Consumer Research*, 36(2), 328-335.

Mullainathan, S., Schwartzstein, J., & Shleifer, A. (2008). Coarse Thinking and Persuasion. *Quarterly Journal Of Economics*, 123(2), 577-619.

Myers, S. (1983). Estimating the Economic Model of Crime: Employment Versus Punishment Effects. *The Quarterly Journal Of Economics*, 98(1), 157.

Olenski, A., Zimmerman, A., Coussens, S., & Jena, A. (2020). Behavioral Heuristics in Coronary-Artery Bypass Graft Surgery. *New England Journal Of Medicine*, 382(8), 778-779.

Pennsylvania Commission on Sentencing. PENNSYLVANIA SENTENCING DATA, 1998 [Computer file]. ICPSR version. State College, PA: Pennsylvania Commission on Sentencing [producer], 2000. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research [distributor], 2002.

Philippe, A., & Ouss, A. (2018). "No Hatred or Malice, Fear or Affection": Media and Sentencing. *Journal Of Political Economy*, 126(5), 2134-2178.

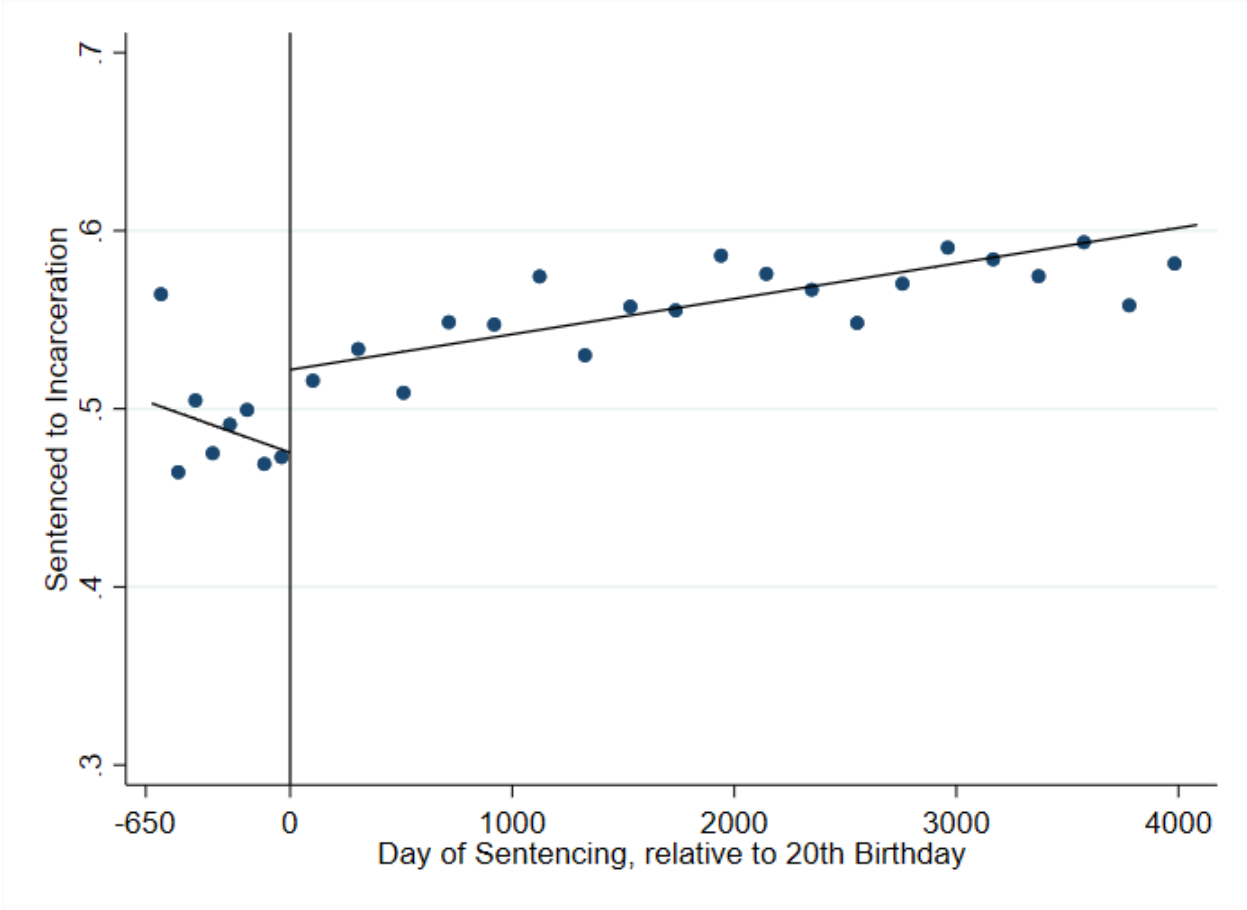
Rachlinski, J., Johnson, S., Wistrich, A., & Guthrie, C. (2009). Does Unconscious Bias Affect Trial Judges?. *SSRN Electronic Journal*.

Thomas, M., & Morwitz, V. (2005). Penny Wise and Pound Foolish: The Left-Digit Effect in Price Cognition. *Journal Of Consumer Research*, 32(1), 54-64.

Waldfogel, J. (1994). The Effect of Criminal Conviction on Income and the Trust "Reposed in the Workmen". *The Journal Of Human Resources*, 29(1), 62.

Figures and Tables

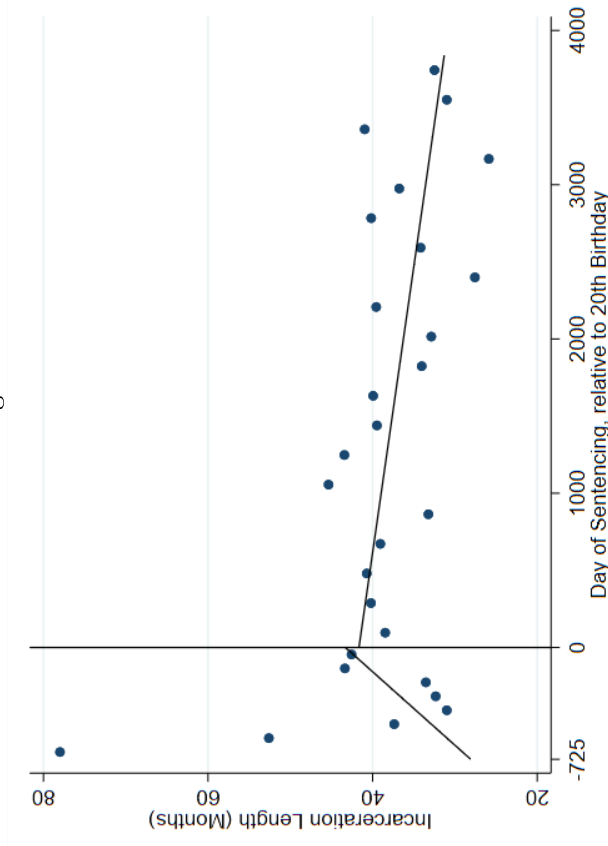
Figure 1: Probability of Incarceration by Day of Sentencing



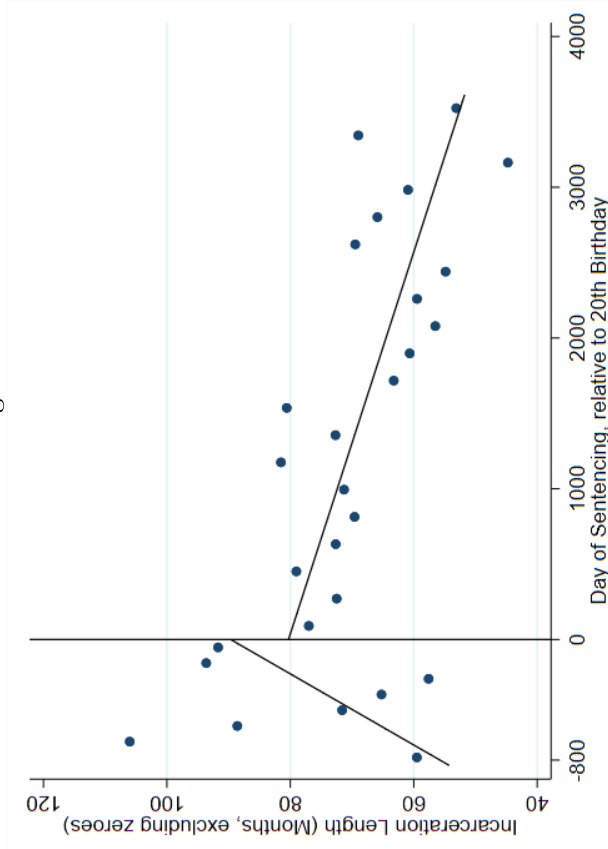
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 2: Incarceration Length by Day of Sentencing

A. Including Zeroes

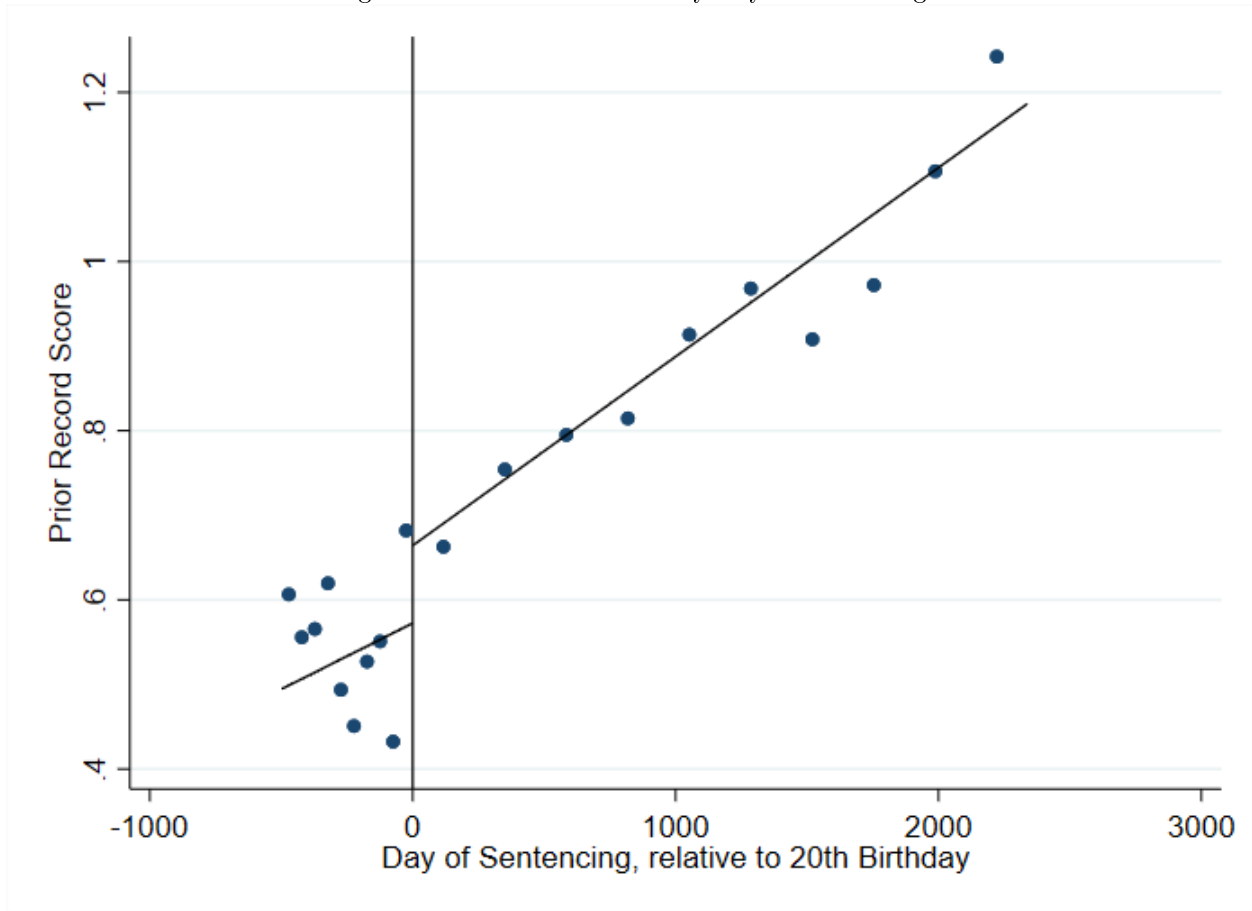


B. Excluding Zeroes



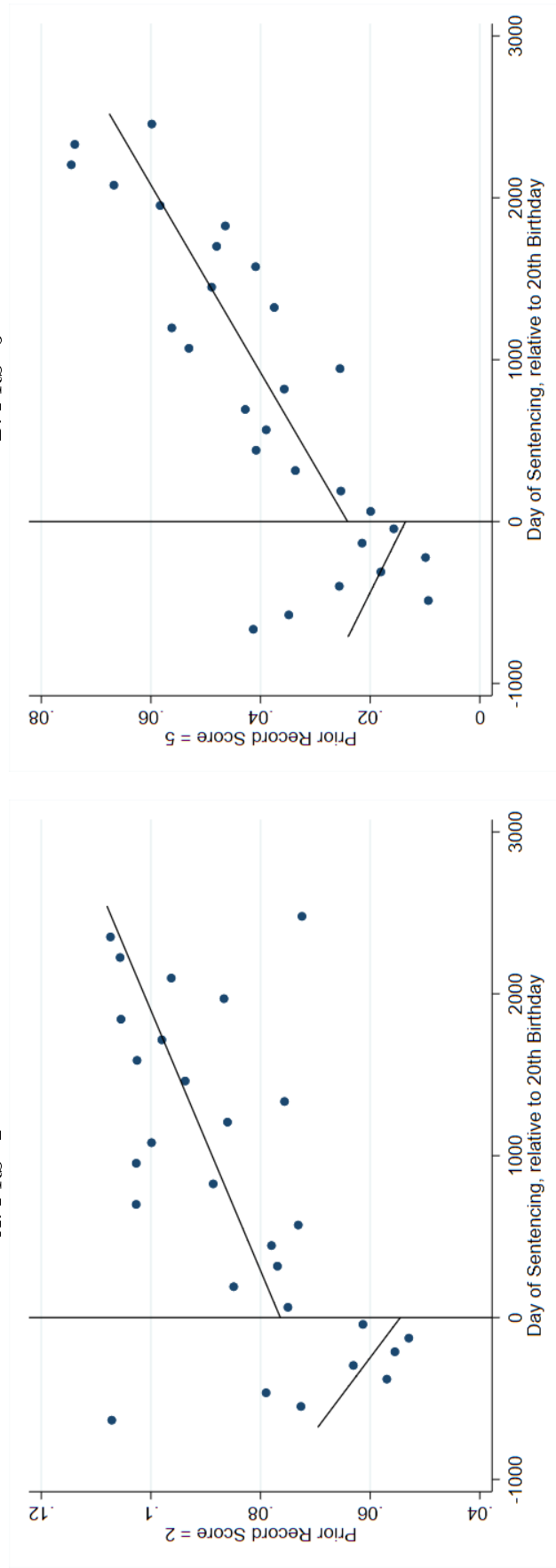
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 3: Prior Record Score by Day of Sentencing



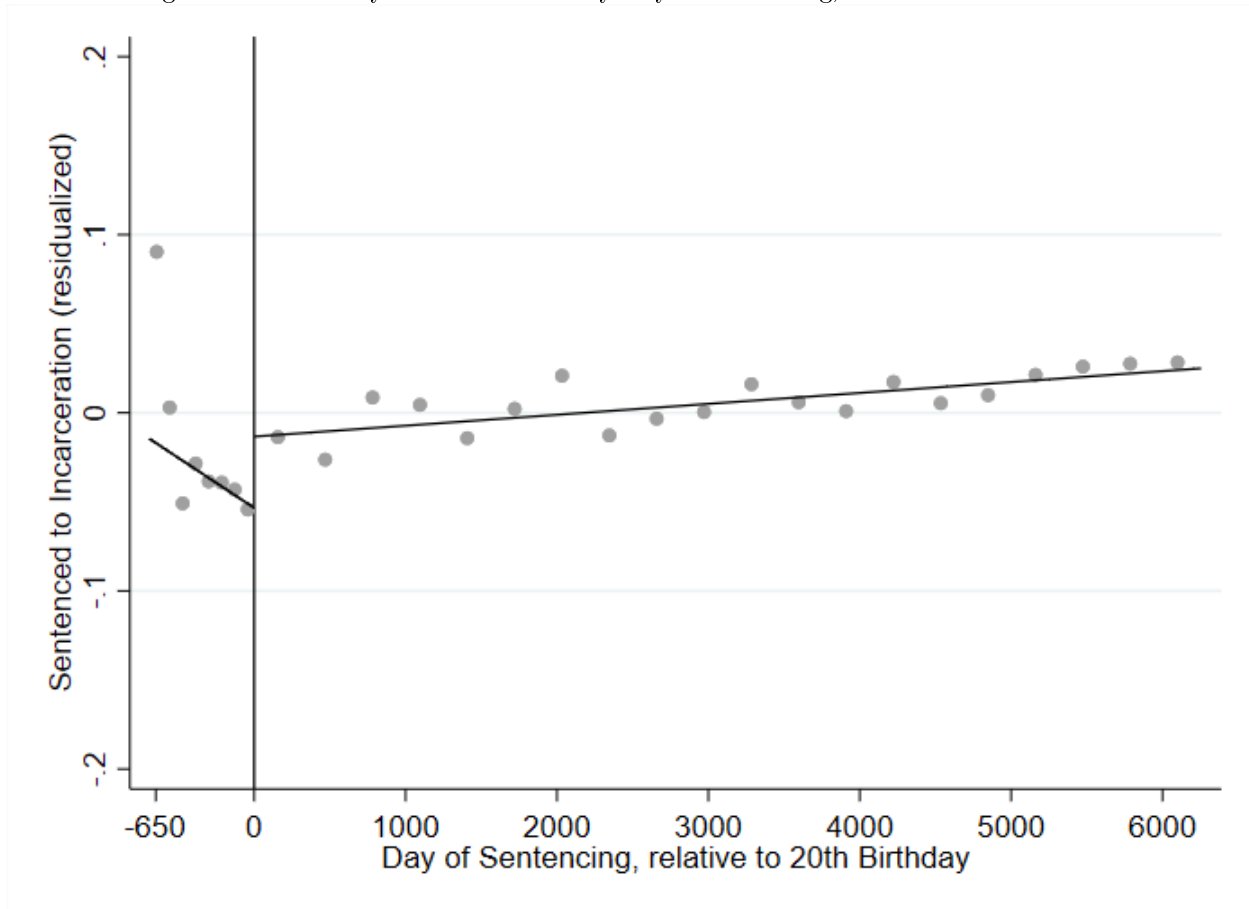
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 4: Probability of Prior Records of 2 and 5 by Day of Sentencing
 A. PRS=2
 B. PRS=5



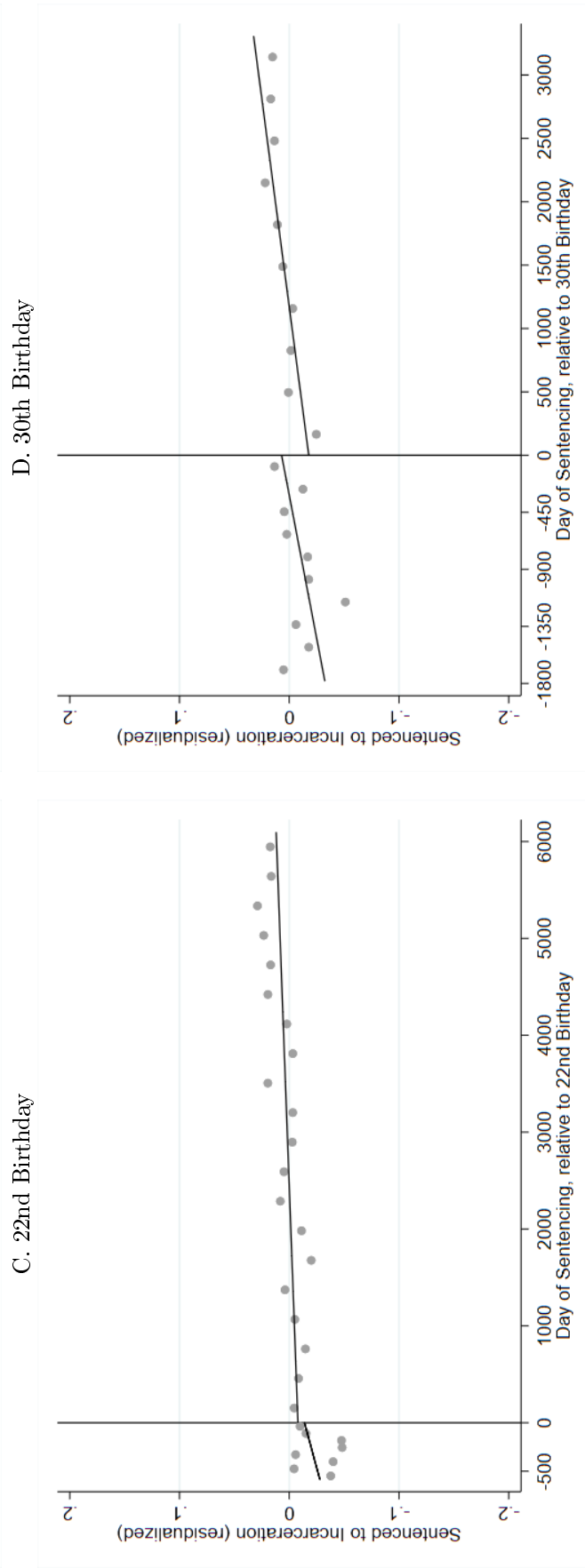
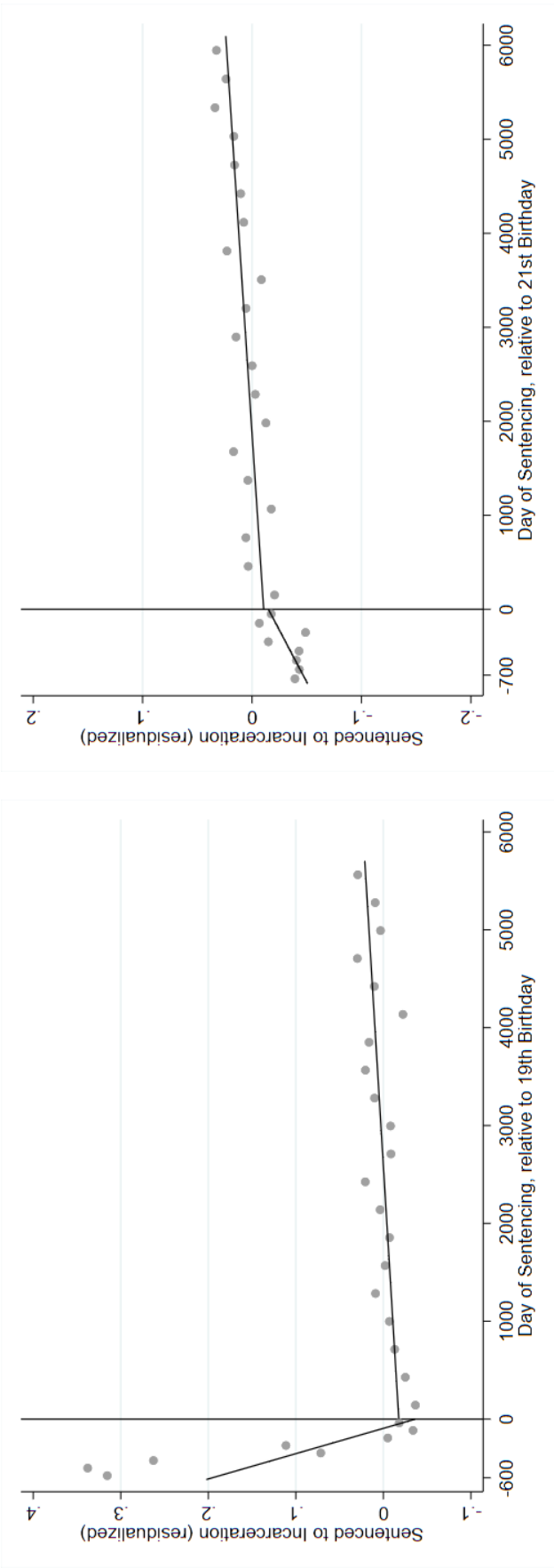
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 5: Probability of Incarceration by Day of Sentencing, with PRS Fixed Effects



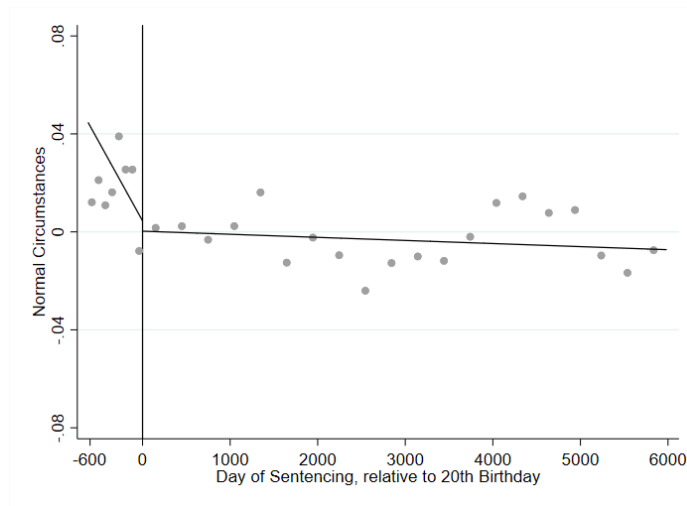
Notes: The dependent variable is residualized using the covariates in Equation (2). Scatter plot points display the means of the residualized dependent variable within bins. Lines are fitted using regression estimates from Equation (2). Note that regressions are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 6: Probability of Incarceration by Day of Sentencing Relative to Various Other Birthdays

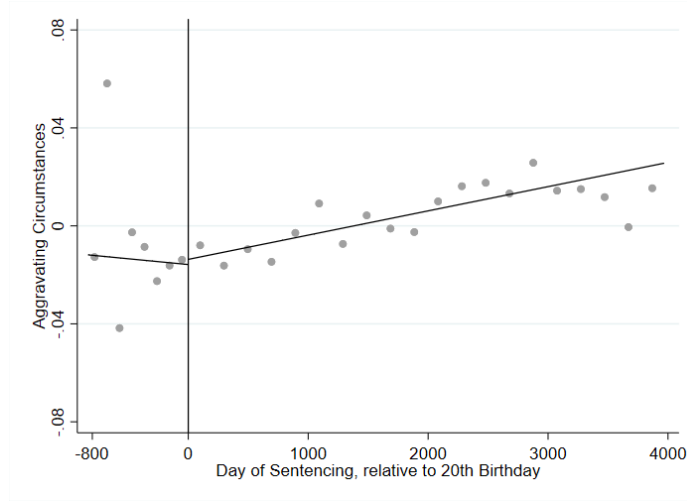


Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

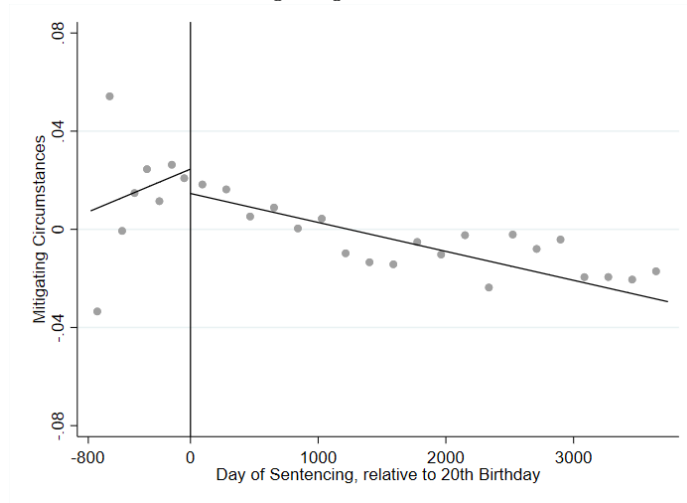
Figure 7: Probability of Determining Particular Type of Circumstances by Day of Sentencing
 A. Normal Circumstances



B. Aggravating Circumstances

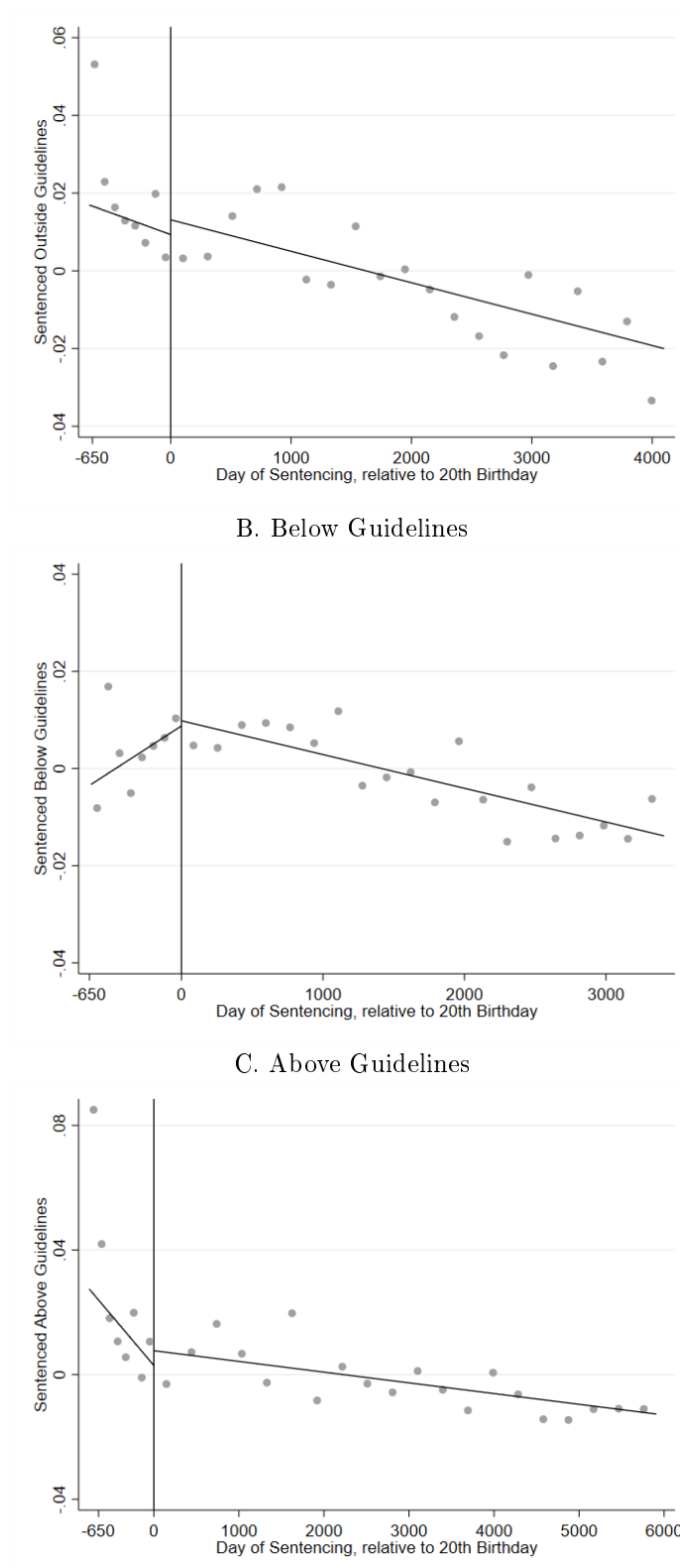


C. Mitigating Circumstances



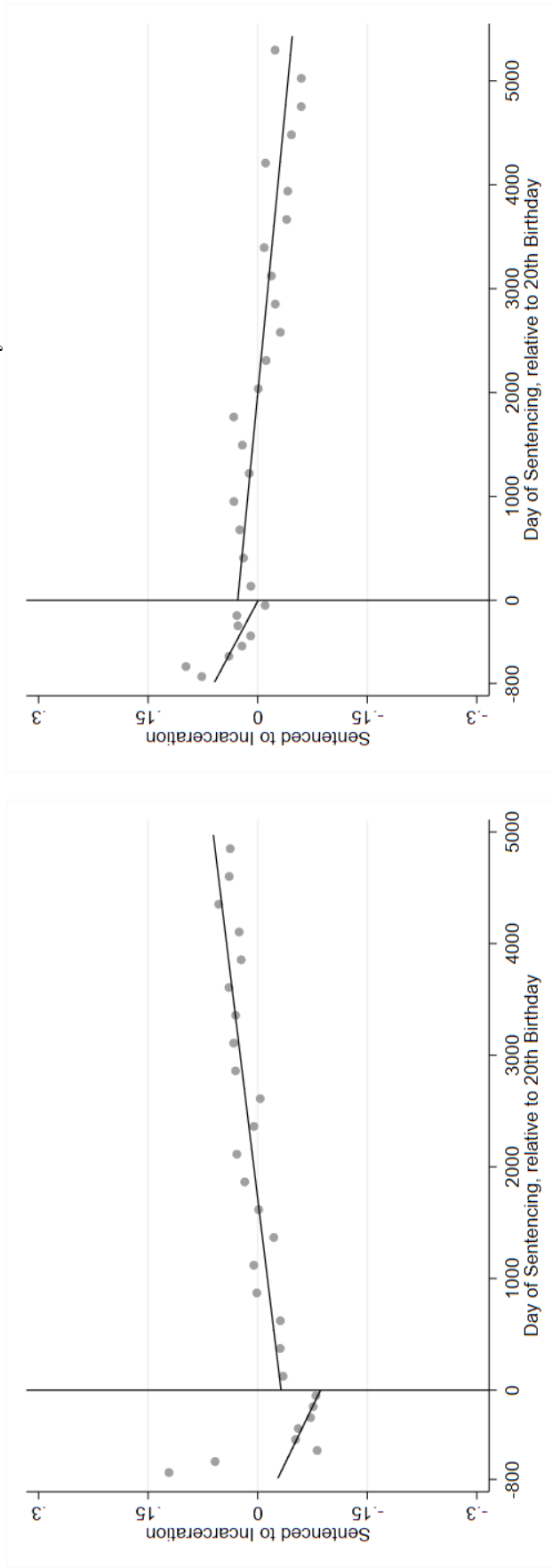
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 8: Probability of Sentence Falling Outside, Below, or Above Guidelines by Day of Sentencing



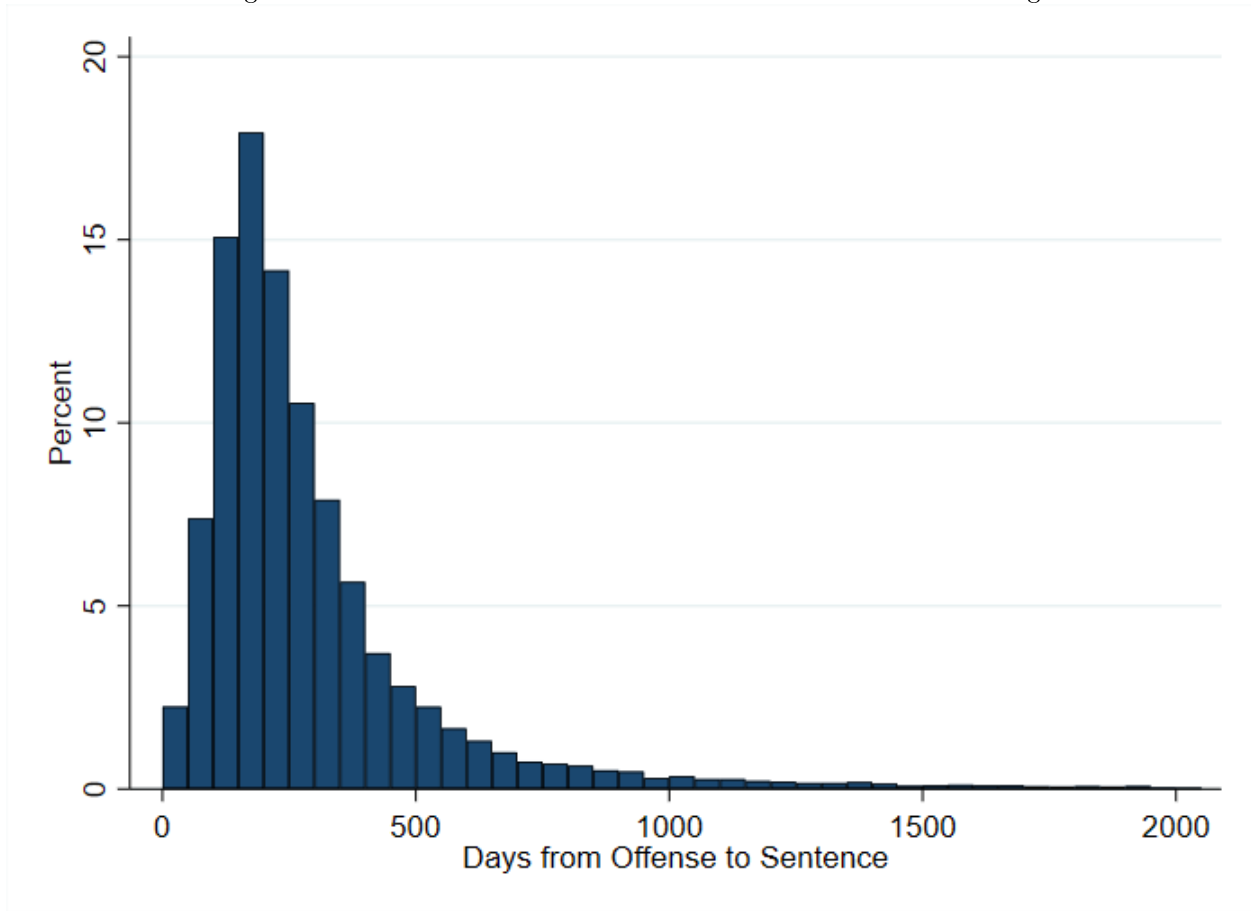
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 9: Probability of Incarceration by Day of Sentencing (by Type of Offense)
 A. Misdemeanor
 B. Felony



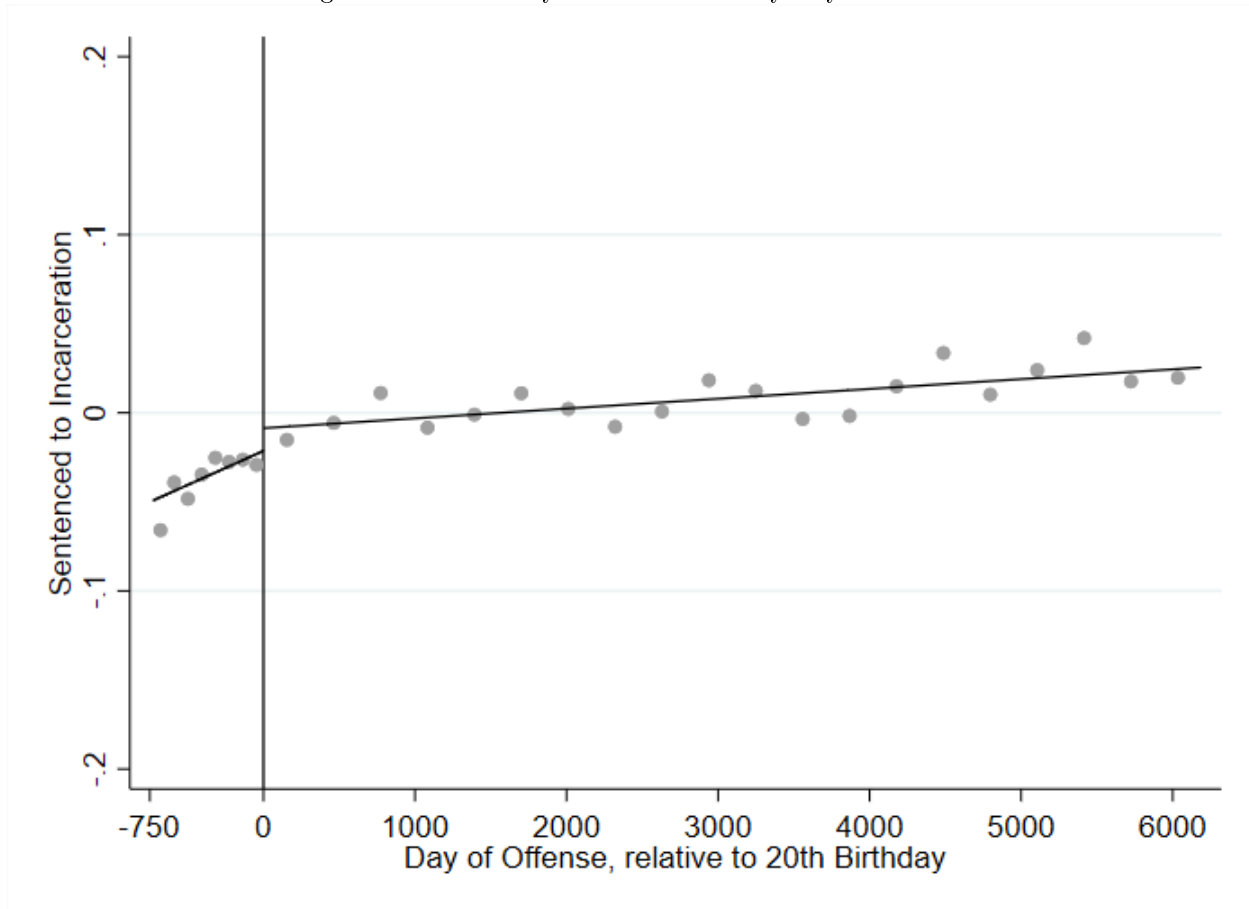
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 10: Distribution of the Time Offense to the Time of Sentencing



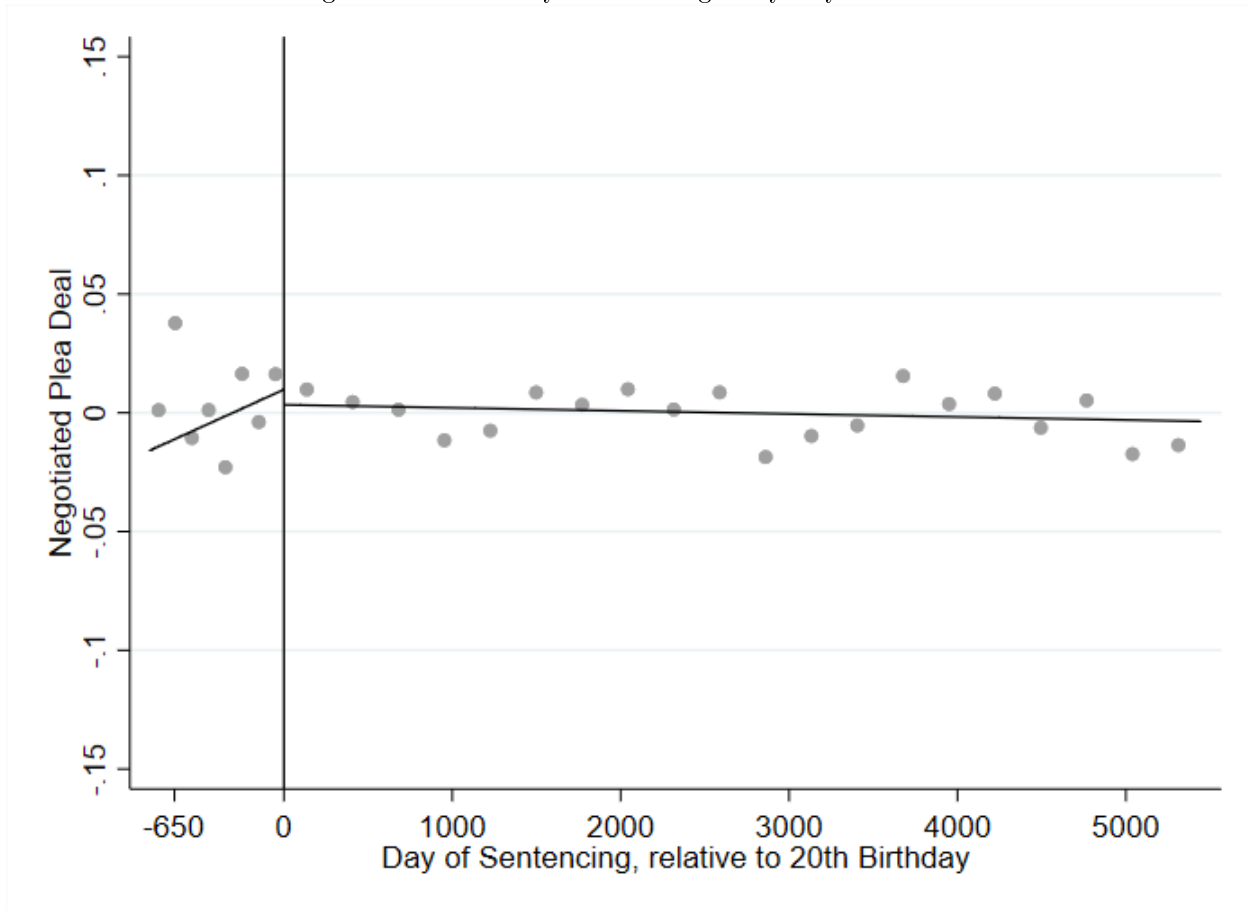
Notes: Bar width is 50 days. The height of the bar corresponds to the percent of judicial proceedings in the data with that number of days between an offense and a sentencing proceeding.

Figure 11: Probability of Incarceration by Day of Offense



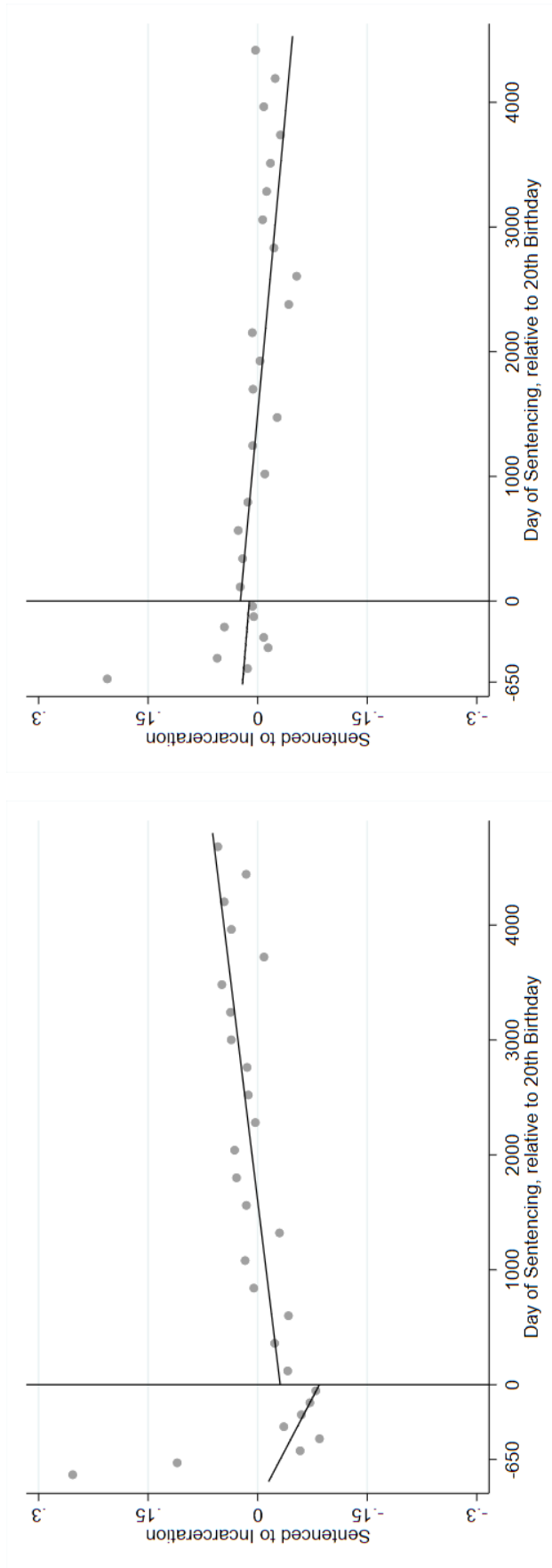
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from an analogue to Equation (2) with day of offense replacing day of sentencing as the running variable. Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 12: Probability of Plea Bargain by Day of Offense



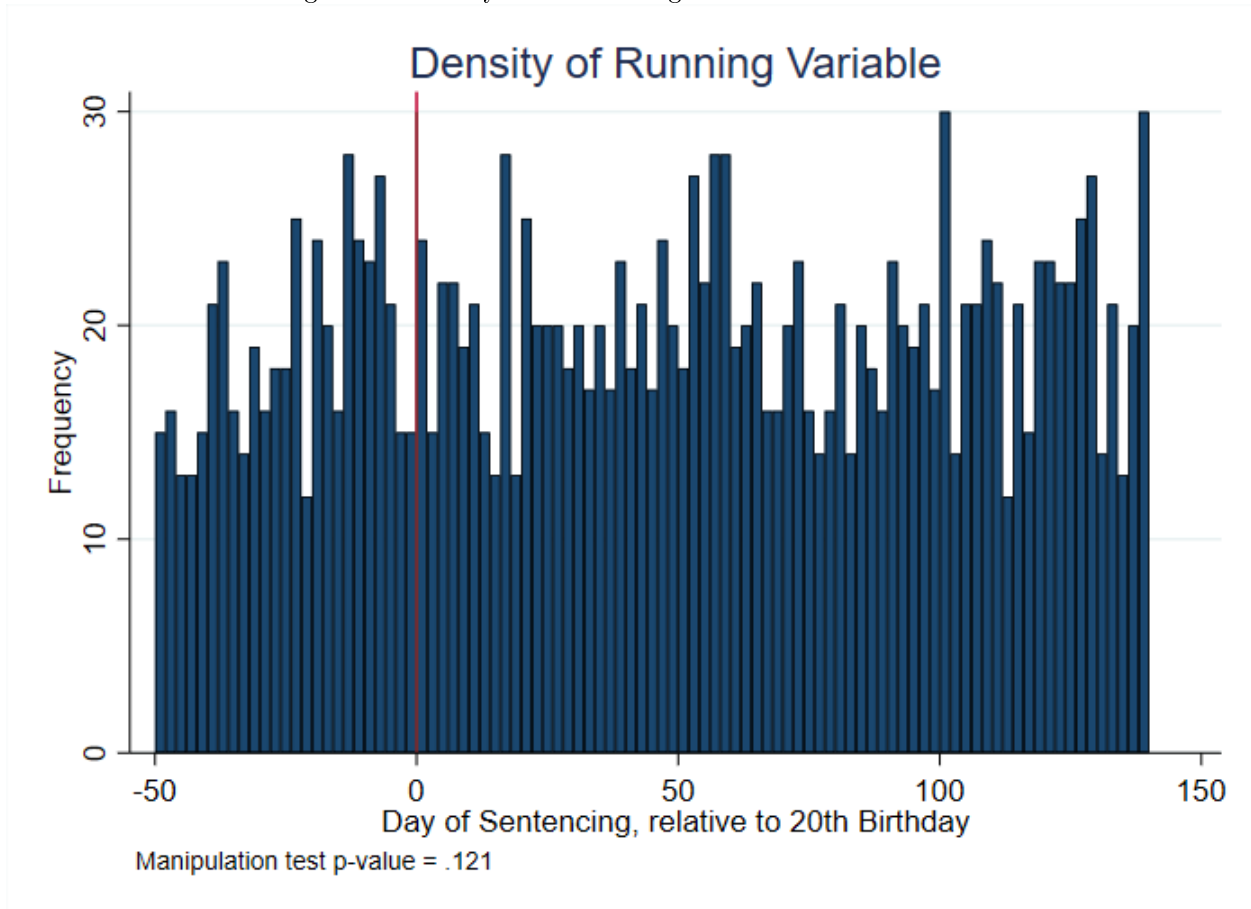
Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (2). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 13: Probability of Incarceration by Day of Sentencing (by Minority Status)
 A. White
 B. Non-white



Notes: Scatter plot points display the means of the dependent variable within bins. Lines are fitted using regression estimates from Equation (1). Note that regressions include controls for guideline fixed effects and are estimated using a triangular kernel, so the fit lines may not align visually with the scatter plot points.

Figure 14: Density of the Running Variable Near RD Cutoff



Notes: Bar width is two days. The height of the bar corresponds to the number of judicial proceedings in the data that occurred on that day. The p-value from the manipulation test is listed below the histogram.

Table 1: Sentencing Matrix from 1997 Guidelines

Level	OGS	Example Offenses	0	1	2	3	4	5	RFEL	REVOC	AGG/MIT
LEVEL 5 State Incar	14	Murder 3 Inchoate Murder/SBI	72-240	84-240	96-240	120-240	168-240	192-240	204-240	240	+/- 12
	13	Inchoate Murder/no SBI Drug Del. Result in Death PWID Cocaine, etc. (>1,000 gms)	60-78	66-84	72-90	78-96	84-102	96-114	108-126	240	+/- 12
	12	Rape IDSJ Robbery (SBI) Robbery/car (SBI)	48-66	54-72	60-78	66-84	72-90	84-102	96-114	120	+/- 12
	11	Agg Asslt (SBI) Voluntary Manslaughter Sexual Assault PWID Cocaine, etc. (100-1,000 gms)	36-54 BC	42-60	48-66	54-72	60-78	72-90	84-102	120	+/- 12
	10	Kidnapping Arson (person inside) Agg Asslt (att. SBI) Robbery (threat. SBI) Agg. Indecent. Asslt Causing Catastrophe(F1) PWID Cocaine, etc. (50-<100 gms)	22-36 BC	30-42 BC	36-48 BC	42-54	48-60	60-72	72-84	120	+/- 12
	9	Robbery/car (no SBI) Robbery (F1/F2) Burglary (home/person) Arson (no person)	12-24 BC	18-30 BC	24-36 BC	30-42 BC	36-48 BC	48-60	60-72	120	+/- 12
LEVEL 4 State Incar/ RIP trade	8 [F1]	Agg Asslt (BI w/DW) Agg Asslt (att. BI w/DW) Invol. Mansl. (when DUI) Hom. by Vehicle (when DUI) Theft (>\$100,000) PWID Cocaine, etc. (10-<50 gms)	9-16 BC	12-18 BC	15-21 BC	18-24 BC	21-27 BC	27-33 BC	40-52	NA	+/- 9
LEVEL 3 State/ County Incar RIP trade	7 [F2]	Robbery (inflicts/threatens BI) Burglary (home/ no person) Statutory Sexual Assault Theft (>\$50,000-\$100,000) Sexual Abuse/Child (take photo) PWID Cocaine, etc. (2.5-<10 gms)	6-14 BC	9-16 BC	12-18 BC	15-21 BC	18-24 BC	24-30 BC	35-45 BC	NA	+/- 6
	6	Invol. Mansl. (when no DUI) Hom. by Vehicle (when no DUI) Burglary (not home/person) Theft (>\$25,000-\$50,000) Arson (property) PWID Cocaine, etc. (<2.5 gms)	3-12 BC	6-14 BC	9-16 BC	12-18 BC	15-21 BC	21-27 BC	27-40 BC	NA	+/- 6
LEVEL 2 County Incar RIP RS	5 [F3]	Burglary (not home/no person) Corruption of Minors Robbery (prop by force) Firearms (loaded) Theft (>\$2000-\$25,000) PWID (1-<10 lb of marij)	RS-9	1-12 BC	3-14 BC	6-16 BC	9-16 BC	12-18 BC	24-36 BC	NA	+/- 3
	4	Indecent assault Forgery (money, stock, etc.) Firearms (unloaded) Crim Trespass (breaks in)	RS-3	RS-9	RS-<12	3-14 BC	6-16 BC	9-16 BC	21-30 BC	NA	+/- 3
	3 [M1]	Simple Assault Terr. Threats Theft (\$200-\$2000) Retail Theft (3rd) DUI (M1) Drug Poss.	RS-1	RS-6	RS-9	RS-<12	3-14 BC	6-16 BC	12-18 BC	NA	+/- 3
LEVEL 1 RS	2 [M2]	Theft (\$50-\$200) Retail Theft (1st ,2nd) DUI (M2) Bad Checks	RS	RS-2	RS-3	RS-4	RS-6	1-9	6- <12	NA	+/- 3
	1 [M3]	Most Misd. 3's; Theft (<\$50) Drug Paraph. Poss. Small Amount Marij.	RS	RS-1	RS-2	RS-3	RS-4	RS-6	3-6	NA	+/- 3

Notes: This sentencing matrix displays the sentencing guidelines for an offender sentenced under the guidelines established in 1997 when no deadly weapon enhancement is applied. The rows correspond to an offender's OGS, and the columns correspond to an offender's PRS. Numeric values in the sentencing matrix refer to months of incarceration. The final column refers to the number of months to add/subtract due to aggravating/mitigating circumstances. "RS" stands for "restorative sanctions," which could include fines, restitution, or probation. "BC" stands for "boot camp," which may be offered as an alternative to incarceration for young offenders. "RIP" stands for "Restrictive Intermediate Punishment," which can be one of multiple punishments that is more severe than probation but less severe than incarceration. M1, M2, and M3 refer to misdemeanors 1, 2, and 3, respectively; similarly F1, F2, and F3 refer to felonies 1, 2, and 3, respectively. This matrix was taken from the website of the Pennsylvania Commission on Sentencing here ([if the previous link is broken, see a stable link here](#)).

Table 2: Mean Characteristics of Full Data Set and Main Estimation Sample

	Full Data Set	Main Estimation Sample
OGS	3.58	3.79
PRS	1.16	0.93
Any Prior Record	0.4	0.35
Age at Sentencing	31.67	23.69
Male	0.83	0.86
White	0.63	0.59
Felony	0.33	0.38
Observations		

Notes: Values correspond to the mean of the variable listed in the row within the sample listed in the column.

Table 3: Estimated Left-digit Bias Parameters on Probability of Incarceration

	(1)	(2)	(3)	(4)	(5)
	Age 20	Age 19	Age 21	Age 22	Age 30
RD Estimate	0.046**	0.019	0.006	0.007	-0.026
	(0.016)	(0.019)	(0.016)	(0.018)	(0.015)
Observations	32,586	21,451	34,811	34,342	22,841

Notes: This table lists estimates of τ from Equation (1), where each column has a different definition of the running variable. The outcome variable is an indicator variable for an offender being sentenced to incarceration. Column (1) is the primary specification which defines the running variable relative to offenders' 20th birthday. Columns (2)-(5) define the running variable relative to offenders' 19th, 21st, 22nd, and 30th birthdays, respectively.

Table 4: Estimated Left-digit Bias Parameters on Incarceration Length

	(1)	(2)	(3)	(4)	(5)
	Age 20	Age 19	Age 21	Age 22	Age 30
<i>A. Including zeros</i>					
RD Estimate	-1.642	8.971	7.321	4.968	-5.557
	(6.229)	(6.340)	(5.307)	(5.771)	(4.731)
Observations	31,383	31,656	28,941	25,806	26,694
<i>B. Excluding Zeros</i>					
RD Estimate	-9.368	11.490	13.649	7.324	-5.458
	(12.061)	(11.192)	(9.992)	(9.950)	(7.739)
Observations	16,416	16,077	15,401	14,709	17,466

Notes: This table lists estimates of τ from Equation (1), where each column has a different definition of the running variable. The outcome variable is the number of months to which an offender is sentenced to incarceration. Panel A includes in the sample offenders who were not sentenced, i.e. offenders for whom the outcome is equal to zero. Panel B excludes from the sample offenders who were not sentenced. Column (1) is the primary specification which defines the running variable relative to offenders' 20th birthday. Columns (2)-(5) define the running variable relative to offenders' 19th, 21st, 22nd, and 30th birthdays, respectively.

Table 5: Test for Balance in Predetermined Variables

	(1)	(2)	(3)	(4)	(5)
	Age 20	Age 19	Age 21	Age 22	Age 30
Offense Gravity Score	.122 (.092) [22,448]	.190* (.094) [23,094]	-.121 (.087) [24,009]	-.04 (.089) [20,019]	-.041 (.066) [25,250]
Prior Record Score	.092* (.046) [21,880]	.075 (.053) [17,296]	-.022 (.047) [23,989]	-.036 (.057) [23,151]	.065 (.058) [23,115]
Any Prior Record (=1)	.022 (.016) [19,482]	.029 (.017) [14,613]	-.005 (.015) [21,439]	.001 (.017) [20,719]	.011 (.015) [23,183]
Male (=1)	.010 (.01) [28,436]	.009 (.012) [26,955]	.002 (.009) [28,210]	.004 (.011) [25,769]	.014 (.012) [22,689]
White (=1)	-.026 (.016) [35,659]	-.016 (.02) [15,658]	.011 (.014) [36,111]	-.022 (.019) [28,402]	.016 (.016) [23,986]

Notes: This table lists estimates of τ from Equation (1). Each displayed trio of point estimate, standard error and observation number comes from a separate regression. Column (1) is the primary specification which defines the running variable relative to offenders' 20th birthday. Columns (2)-(5) define the running variable relative to offenders' 19th, 21st, 22nd, and 30th birthdays, respectively.

Table 6: Test for Balance in each Possible Prior Record Score

	(1)		(1)
Prior Record Score of 0	-.022 (.016) [19,482]	Prior Record Score of 4	.002 (.006) [29,653]
Prior Record Score of 1	-.006 (.009) [25,625]	Prior Record Score of 5	.011* (.004) [23,568]
Prior Record Score of 2	.022** (.008) [23,683]	Prior Record Score of 6	-.0003 (.003) [26,444]
Prior Record Score of 3	.004 (.006) [27,522]	Prior Record Score of 8	.0002 (.0002) [16,552]

*p<0.05, **p<0.01, ***p<0.001

Notes: This table lists estimates of τ from Equation (1). Each displayed trio of point estimate, standard error and observation number comes from a separate regression. Each outcome is an indicator variable for an offender having the specified prior record score.

Table 7: Estimated Left-digit Bias Parameters on Probability of Incarceration, With PRS/OGS Fixed Effects

	(1)	(2)	(3)
RD Estimate	0.046**	0.035*	0.037**
	(0.016)	(0.015)	(0.014)
Observations	32,586	37,543	29,949
PRS Fixed Effects	No	Yes	Yes
OGS Fixed Effects	No	No	Yes

Notes: This table lists estimates of τ from Equations (1) and 2. The outcome variable is an indicator variable for an offender being sentenced to incarceration. Column (1) includes the estimate from Table (1) for comparison. Column (2) adds fixed effects for prior record score. Column (3) adds fixed effects for prior record score and fixed effects for offense gravity score.

Table 8: Estimated Left-digit Bias Parameters on Probability of Incarceration by Crime Type

	(1)	(2)
	Misdemeanor	Felony
RD Estimate	0.048*	0.026
	(0.019)	(0.019)
Observations	23,999	14,070

Notes: This table lists estimates of τ from Equation (2). The outcome variable is an indicator variable for an offender being sentenced to incarceration. Column 1 is estimated using the sample of misdemeanor offenses in the data. Column 2 is estimated using the sample of felony offenses in the data.

Table 9: Heterogeneity of Left-digit Bias Estimates by Race, Gender, and Type of Crime

	(1)	(2)
	White	Non-White
RD Estimate	0.050*	0.009
	(0.021)	(0.023)
Observations	19,116	13,135

Notes: This table lists estimates of τ from Equation (1). The outcome variable an indicator variable for an offender being sentenced to incarceration. Column (1) is estimated using only the sample of white offenders. Column (2) is estimated using only the sample of non-white offenders.

Table 10: Estimated Changes in Applications of Circumstances and Guideline Adherence on 20th Birthday

<i>A. Circumstances</i>			
	Normal	Mitigating	Aggravating
RD Estimate	0.002 (0.014)	-0.010 (0.009)	0.001 (0.011)
Observations	31,470	26,785	25,262
<i>B. Guideline Adherence</i>			
	Outside Guidelines	Below Guidelines	Above Guidelines
RD Estimate	0.002 (0.010)	0.000 (0.006)	0.003 (0.009)
Observations	31,328	27,345	30,554

Notes: This table lists estimates of τ from Equation (1). Each column of each panel is from an estimate of Equation (1) with a different outcome variable. Panel A presents results using each of the possible types of circumstances as outcome variables. Panel B presents results for the outcome of sentencing decisions relative to those prescribed by the guidelines.

Table 11: Estimated Left-digit Bias Parameters on Probability of Incarceration, Varying Bandwidth and Polynomial

	(1)	(2)
	Linear	Quadratic
MSE, Differing Bandwidths	0.035* (0.015) [37,543]	0.031 (0.019) [42,718]
MSE, Common Bandwidth	0.042* (0.019) [12,043]	0.052* (0.026) [12,425]
MSE, Common Bandwidth (sum)	0.043* (0.021) [10,422]	0.044 (0.025) [13,288]
CER, Differing Bandwidths	0.036* (0.017) [25,925]	0.039 (0.023) [28,093]
CER, Common Bandwidth	0.047* (0.023) [8,792]	0.086** (0.032) [8,755]
CER, Common Bandwidth (sum)	0.059* (0.025) [7,001]	0.075* (0.03) [9,630]

Notes: This table lists estimates of τ from Equation (1). Each displayed trio of point estimate, standard error and observation number comes from a separate regression. The columns vary the degree of the polynomial fitted on either side of the RD threshold. The rows differ on the objective function for bandwidth selection. Rows labelled “MSE” minimize the mean squared error of τ . Rows labelled “CER” minimize the coverage error rate. Rows labelled “Differing Bandwidths” allow the bandwidth to the left of the RD threshold to differ from the bandwidth to the right of the RD threshold, while rows labelled “Common Bandwidth” require the bandwidth to be equal on either side of the RD threshold. Rows labelled “(sum)” minimize either MSE or CER for the sum of regression estimates rather than the difference thereof.

Appendix A1: Sample Sentencing Form

PENNSYLVANIA COMMISSION ON SENTENCING GUIDELINE SENTENCE FORM [5th Edition, 6/13/97]

Commission Form ID Number
38309

Identification		Offense Name/Description:																																																																																																																																																	
Offender's Name (Last, First, Middle)		Date of Offense																																																																																																																																																	
State ID Number		Title & Section §																																																																																																																																																	
Police Photo ID Number		Docket #																																																																																																																																																	
Social Security Number		Court #																																																																																																																																																	
Judge's Name (Required)		Grade																																																																																																																																																	
County		OGS																																																																																																																																																	
Person Completing Form		PRS																																																																																																																																																	
Date of Sentence		OTN																																																																																																																																																	
		GUIDELINE RANGES																																																																																																																																																	
		Mitigated																																																																																																																																																	
		Standard																																																																																																																																																	
		Aggravated																																																																																																																																																	
		LEVEL																																																																																																																																																	
<input type="checkbox"/> Check box if same Prior Record Score information appears on another form from this judicial proceeding. Do not enter information again, give Commission Form ID #.		Current Offense																																																																																																																																																	
		Date of Offense																																																																																																																																																	
Prior Record <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align:center">Juvenile Adjudication</td> <td style="text-align:center">Adult Conviction</td> <td></td> </tr> <tr> <td>Murder & inchoates</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Vol. Manslaughter</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Rape</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Kidnapping</td> <td></td> <td></td> <td></td> </tr> <tr> <td>I.D.S.I</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Arson (F-1/person)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Robbery (SBI)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Rob. Motor Veh (SBI)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Agg. Assault (SBI)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Drug Del. Death</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Burglary (house/person)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Ethnic Intimidation to F1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Add # of offenses in each block & enter sum</td> <td></td> <td></td> <td style="text-align:center">x4=</td> </tr> <tr> <td>Inchoate to 4 pt. off's</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Arson (F1/no person)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Robbery (other F1)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Robbery Motor Vehicle (no SBI)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Agg. Assault (att. SBI)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Burglary (other F1)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Agg. Indecent Assault</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sexual Assault</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other Felony 1s</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Add # of offenses in each block & enter sum</td> <td></td> <td></td> <td style="text-align:center">x3=</td> </tr> <tr> <td>Felony 2s</td> <td></td> <td></td> <td style="text-align:center">x2=</td> </tr> <tr> <td>Fel. Drugs (>=50gr.)</td> <td></td> <td></td> <td style="text-align:center">x3=</td> </tr> <tr> <td>Other Felony Drugs</td> <td></td> <td></td> <td style="text-align:center">x2=</td> </tr> <tr> <td>Felony 3s</td> <td></td> <td></td> <td></td> </tr> <tr> <td>M1 - Death</td> <td></td> <td></td> <td></td> </tr> <tr> <td>M1 - Weapon</td> <td></td> <td></td> <td></td> </tr> <tr> <td>M1 - Children</td> <td></td> <td></td> <td></td> </tr> <tr> <td>M1 - DUI</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Add # of offenses in each block & enter sum</td> <td></td> <td></td> <td style="text-align:center">x1=</td> </tr> <tr> <td>Other Misd. _____</td> <td style="text-align:center">0-1=0</td> <td style="text-align:center">4-6=2</td> <td></td> </tr> <tr> <td></td> <td style="text-align:center">2-3=1</td> <td style="text-align:center">7+=3</td> <td></td> </tr> <tr> <td>PRIOR RECORD SCORE: If A is 8 points or greater, and the OGS=9 or more: Otherwise, if A + B is 6 points or greater: Otherwise, PRS = A + B + C (maximum = 5).</td> <td></td> <td></td> <td style="text-align:center">PRS=REVOG PRS=RFEL PRS=</td> </tr> </table>			Juvenile Adjudication	Adult Conviction		Murder & inchoates				Vol. Manslaughter				Rape				Kidnapping				I.D.S.I				Arson (F-1/person)				Robbery (SBI)				Rob. Motor Veh (SBI)				Agg. Assault (SBI)				Drug Del. Death				Burglary (house/person)				Ethnic Intimidation to F1				Add # of offenses in each block & enter sum			x4=	Inchoate to 4 pt. off's				Arson (F1/no person)				Robbery (other F1)				Robbery Motor Vehicle (no SBI)				Agg. Assault (att. SBI)				Burglary (other F1)				Agg. Indecent Assault				Sexual Assault				Other Felony 1s				Add # of offenses in each block & enter sum			x3=	Felony 2s			x2=	Fel. Drugs (>=50gr.)			x3=	Other Felony Drugs			x2=	Felony 3s				M1 - Death				M1 - Weapon				M1 - Children				M1 - DUI				Add # of offenses in each block & enter sum			x1=	Other Misd. _____	0-1=0	4-6=2			2-3=1	7+=3		PRIOR RECORD SCORE: If A is 8 points or greater, and the OGS=9 or more: Otherwise, if A + B is 6 points or greater: Otherwise, PRS = A + B + C (maximum = 5).			PRS=REVOG PRS=RFEL PRS=	Sentencing Information	
			Juvenile Adjudication	Adult Conviction																																																																																																																																															
Murder & inchoates																																																																																																																																																			
Vol. Manslaughter																																																																																																																																																			
Rape																																																																																																																																																			
Kidnapping																																																																																																																																																			
I.D.S.I																																																																																																																																																			
Arson (F-1/person)																																																																																																																																																			
Robbery (SBI)																																																																																																																																																			
Rob. Motor Veh (SBI)																																																																																																																																																			
Agg. Assault (SBI)																																																																																																																																																			
Drug Del. Death																																																																																																																																																			
Burglary (house/person)																																																																																																																																																			
Ethnic Intimidation to F1																																																																																																																																																			
Add # of offenses in each block & enter sum			x4=																																																																																																																																																
Inchoate to 4 pt. off's																																																																																																																																																			
Arson (F1/no person)																																																																																																																																																			
Robbery (other F1)																																																																																																																																																			
Robbery Motor Vehicle (no SBI)																																																																																																																																																			
Agg. Assault (att. SBI)																																																																																																																																																			
Burglary (other F1)																																																																																																																																																			
Agg. Indecent Assault																																																																																																																																																			
Sexual Assault																																																																																																																																																			
Other Felony 1s																																																																																																																																																			
Add # of offenses in each block & enter sum			x3=																																																																																																																																																
Felony 2s			x2=																																																																																																																																																
Fel. Drugs (>=50gr.)			x3=																																																																																																																																																
Other Felony Drugs			x2=																																																																																																																																																
Felony 3s																																																																																																																																																			
M1 - Death																																																																																																																																																			
M1 - Weapon																																																																																																																																																			
M1 - Children																																																																																																																																																			
M1 - DUI																																																																																																																																																			
Add # of offenses in each block & enter sum			x1=																																																																																																																																																
Other Misd. _____	0-1=0	4-6=2																																																																																																																																																	
	2-3=1	7+=3																																																																																																																																																	
PRIOR RECORD SCORE: If A is 8 points or greater, and the OGS=9 or more: Otherwise, if A + B is 6 points or greater: Otherwise, PRS = A + B + C (maximum = 5).			PRS=REVOG PRS=RFEL PRS=																																																																																																																																																
		MANDATORY <input type="checkbox"/> None																																																																																																																																																	
		<input type="checkbox"/> Drugs to Minors (18-6314)																																																																																																																																																	
		<input type="checkbox"/> Drug Trafficking (18-7508)																																																																																																																																																	
		<input type="checkbox"/> Visible Firearm (42-9712)																																																																																																																																																	
		<input type="checkbox"/> Two/Three Strikes (42-9714)																																																																																																																																																	
		<input type="checkbox"/> Elderly (42-9717)																																																																																																																																																	
		<input type="checkbox"/> Children (42-9718)																																																																																																																																																	
		<input type="checkbox"/> DUI (75-3731) (below)																																																																																																																																																	
		_____ 1st _____ 3rd																																																																																																																																																	
		_____ 2nd _____ 4th+																																																																																																																																																	
		<input type="checkbox"/> Other _____																																																																																																																																																	
		ENHANCEMENT <input type="checkbox"/> None																																																																																																																																																	
		<input type="checkbox"/> Deadly Weapon/Possessed } Weapon Type _____																																																																																																																																																	
		<input type="checkbox"/> Deadly Weapon/Used } _____																																																																																																																																																	
		<input type="checkbox"/> Youth/Drug Distribution																																																																																																																																																	
		<input type="checkbox"/> School/Drug Distribution																																																																																																																																																	
		OTHER INFORMATION																																																																																																																																																	
		<input type="checkbox"/> Drug Dependent																																																																																																																																																	
		<input type="checkbox"/> IP Eligible																																																																																																																																																	
		<input type="checkbox"/> Boot Camp Eligible																																																																																																																																																	
		<input type="checkbox"/> PSI Completed																																																																																																																																																	
		<input type="checkbox"/> D&A Eval. Completed																																																																																																																																																	
		<input type="checkbox"/> Sexually Viol. Predator																																																																																																																																																	
		Age of Victim (if available) _____																																																																																																																																																	
Sentences Imposed		CONFINEMENT/INTERMEDIATE PUNISHMENT																																																																																																																																																	
		<input type="checkbox"/> Confinement/State Facility																																																																																																																																																	
		Boot Camp Authorized <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																																																																																																	
		<input type="checkbox"/> Confinement/County Facility																																																																																																																																																	
		Work Release Authorized <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																																																																																																	
		Minimum: _____ [mos.]																																																																																																																																																	
		Maximum: _____ [mos.]																																																																																																																																																	
		Credit for Time Served: _____ [days]																																																																																																																																																	
		<input type="checkbox"/> Intermediate Punishment (IP)																																																																																																																																																	
		RIP Period: _____ [mos.]																																																																																																																																																	
		Program(s): _____																																																																																																																																																	
		RS Period: _____ [mos.]																																																																																																																																																	
		Program(s): _____																																																																																																																																																	
		If DRUG DEPENDENT, is IP consistent <input type="checkbox"/> Yes																																																																																																																																																	
		with clinical recommendation? <input type="checkbox"/> No																																																																																																																																																	
		RESTORATIVE SANCTIONS																																																																																																																																																	
		<input type="checkbox"/> Probation Period: _____ [mos.]																																																																																																																																																	
		Conditions: _____																																																																																																																																																	
		<input type="checkbox"/> Fines {Amt.}: \$ _____																																																																																																																																																	
		<input type="checkbox"/> Restitution {Amt.}: \$ _____																																																																																																																																																	
		<input type="checkbox"/> Costs {Amt.}: \$ _____																																																																																																																																																	
		<input type="checkbox"/> Guilty without further penalty (NFP)																																																																																																																																																	
		GUIDELINE CONFORMITY																																																																																																																																																	
		<input type="checkbox"/> Standard																																																																																																																																																	
		<input type="checkbox"/> Aggravated																																																																																																																																																	
		<input type="checkbox"/> Mitigated																																																																																																																																																	
		Departure <input type="checkbox"/> Below																																																																																																																																																	
		<input type="checkbox"/> Above																																																																																																																																																	
		TYPE OF DISPOSITION																																																																																																																																																	
		<input type="checkbox"/> Nolo Contendere																																																																																																																																																	
		<input type="checkbox"/> Neg. Guilty Plea																																																																																																																																																	
		<input type="checkbox"/> Non-Neg Guilty Plea																																																																																																																																																	
		<input type="checkbox"/> Jury Trial																																																																																																																																																	
		<input type="checkbox"/> Bench Trial																																																																																																																																																	
		<input type="checkbox"/> Other _____																																																																																																																																																	
Reasons for sentence: (continue on back if needed)		WHAT IS THE TOTAL AMOUNT OF SUPERVISION																																																																																																																																																	
		(all sanctions) FOR THIS OFFENSE:																																																																																																																																																	
		Total Supervision Period: _____ (mos.)																																																																																																																																																	
		Is this offense TOTALLY CONCURRENT to any other offense? <input type="checkbox"/> YES <input type="checkbox"/> NO																																																																																																																																																	
		WHAT IS THE CUMULATIVE SENTENCE IMPOSED DURING THE JUDICIAL PROCEEDING: (fill out once per proceeding)																																																																																																																																																	
		Minimum Confinement: _____ (mos.)																																																																																																																																																	
		Maximum Confinement: _____ (mos.)																																																																																																																																																	
		Other: _____ (mos.)																																																																																																																																																	
		JUDGE'S SIGNATURE																																																																																																																																																	
		DATE																																																																																																																																																	

Appendix A2: Offenses and their Associated Offense Gravity Scores

Offense Label	OGS
Violate Dog Laws (101 to 802)	1
Violate Dog Laws	1
Dogs Used for Law Enforcement	2
Reselling Tickets	1
Amusement Violation Resulting in Death	1
Small Games of Chance/Sales Limited	3
Actions by Gypsies without License	1
Criminal Attempt	~
Criminal Solicitation	~
Criminal Conspiracy	~
Poss. Instruments of Crime-Body Armor	5
Poss. Instruments of Crime - Weapon	4
Poss. Instruments of Crime-Crim Instr	3
Prohibited Offensive Weapons	4
Manufacture/Etc. Master Key Motor Vehicles	3
Manuf./Etc. Device for Theft Telecom -2nd+	5
Manuf./Etc. Device for Theft Telecom -1st	3
Corrupt Organizations	8
Possession of Weapon On School Property	4
Poss. of Weapon in Court Facil.(Intend for Crim	3
Possession of Weapon in Court Facility	1
Desecration of Flag	1
Insults to National or Commonwealth Flag	2
Murder of The First Degree	.
Murder of The Second Degree	.
Murder of The Third Degree	14
Murder Inchoate- Att;Sol;Consp w/ S.B.I.	14
Murder Inchoate- Att;Sol;Consp no S.B.I.	13
Voluntary Manslaughter	11
Involuntary Manslaughter - victim <12 yrs.	8
Involuntary Manslaughter - w/ DUI conviction	8
Involuntary Manslaughter	6
Suicide, Aids or Solicits - Positive Result	6
Suicide, Aids or Solicits - No Result	2
Cause/Aiding Suicide-As Homicide:Mur 1	.
Cause/Aiding Suicide-As Homicide:Mur 2	.
Cause/Aiding Suicide-As Homicide:Mur 3	14
Cause/Aiding Suicide-As Homicide: Vol Man	11
Cause/Aiding Suicide-As Homicide:Invol Man -	8
Cause/Aiding Suicide-As Homicide:Invol Man	6
Cause/Aiding Suicide-As Homicide:Invol Man w	8
Drug Delivery Resulting in Death	13
Simple Assault - Against Child by Adult	4
Simple Assault	3
Simple Assault - Cause B.I. w/ Deadly Weapon	3
Simple Assault - Mutual Consent	1
Aggravated Assault - Cause S.B.I.	11
Aggravated Assault - Attempt S.B.I.	10
Aggravated Assault - Cause S.B.I. Police, etc.	11

Offense Label	OCS
Aggravated Assault - Attempt S.B.I. Police, etc.	10
Aggravated Assault - Cause or Attempt B.I. Pol	6
Aggravated Assault - Cause/ Att B.I. w/Deadly	8
Aggravated Assault - Teacher	6
Aggravated Assault - Fear S.B.I.	6
Aggravated Assault - OGS 11 Unk	11
Aggravated Assault - OGS 10 Unk	10
Aggravated Assault - OGS 6 Unk	6
Assault by Prisoner	6
Assault by a Life Prisoner	.
Recklessly Endangering Another Person	3
Terroristic Threats	3
Propulsion of Missiles into an Occup. Vehicle	3
Propulsion of Missiles onto a Roadway	2
Use of Tear Gas in Labor Dispute	3
Stalking - Subsequent Offense	5
Stalking - 1st Offense	3
Ethnic Intimidation	~
Assault on Sports Official	3
Neglect Care-depend. Person(Cause S.B.I.)	10
Neglect Care-depend. Person (Cause B.I.)	4
Kidnapping	10
Unlawful Restraint	3
False Imprisonment	2
Interfere w/ Custody of Children	6
Interfere w/ Custody of Child-Cause Alarm	4
Interfere w/ Custody of Child-Good Cause	2
Interfere w/ Custody of Committed Person	4
Criminal Coercion-Threat or Intend Felony	3
Criminal Coercion	2
Disposition of Ransom	5
Concealment of Whereabouts of a Child	4
Luring a Child into a Motor Vehicle	5
Rape	12
Statutory Sexual Assault	7
Involuntary Deviate Sexual Intercourse	12
Sexual Assault	11
Aggravated Indecent Assault	10
Indecent Assault - Person Under 13 Yrs.	5
Indecent Assault	4
Indecent Exposure -Person Under 16 Yrs.	4
Indecent Exposure	3
Abortion - Informed Consent; Subseq. Off	1
Abortion - Viability Falsification	1
Abortion - After 24 Weeks; 1st Offense	2
Abortion - After 24 Weeks - Subseq. Off.	3
Abortion - After 24 Weeks	5
Abortion - Infanticide	5
Abortion - Prohibited Acts; Payment	2
Abortion - Prohibited Acts; Referral Fee	3
Abortion - Reporting	1
Abortion - Reporting; False Reports	3
Abortion - Pub Official Ordering/Limiting	3
Abortion - Fetal Experiment	5
Abortion - False Statements	2
Abortion - False Statements Under Penalty	1
Arson - Endanger Persons; Person in Bldg or B	10

Offense Label	OCS
Arson - Endanger Persons; Nobody in Bldg. no	9
Arson - Endangering Property	6
Arson - Reckless Burning or Exploding	5
Arson - Possess Explosive Material	5
Arson - OGS 5 Unk	5
Arson - Failure To Control/Report Fire	3
Arson - Fail To Disclose True Owner	1
Arson - Endanger Person; Murder 2	.
Arson - Endanger Person; Murder 1	.
Catastrophe - Intentionally Causing	10
Catastrophe - Recklessly Causing	6
Catastrophe - Risking	4
Failure To Prevent Catastrophe	2
Criminal Mischief - Over \$5,000	5
Criminal Mischief - Over \$1,000	2
Criminal Mischief - Over \$500	1
Criminal Mischief -loss >\$150 under(a)(4)	1
Criminal Mischief - OGS 1 Unk	1
Tampering with Fire Apparatus; Etc.	1
Institutional Vandalism; >\$5,000 or Desecration	5
Institutional Vandalism; \$5,000 or Less	2
Agricultural Vandalism; Over \$5,000	5
Agricultural Vandalism; Over \$1,000	3
Agricultural Vandalism; Over \$500	2
Agricultural Vandalism; \$500 or Less	1
Burglary - Home: Person Present	9
Burglary - Home: No One Present	7
Burglary - Not of a Home: Person Present	6
Burglary - Not of a Home: No One Present	5
Criminal Trespass - Buildings - Break-in	4
Criminal Trespass - Buildings	3
Criminal Trespass - Defiant	1
Robbery - Inflicts S.B.I.	12
Robbery - Threatens S.B.I.	10
Robbery - Commit/Threaten any F1 or F2	9
Robbery - Inflicts or Threatens B.I.	7
Robbery - Takes Property with Force	5
Robbery of Motor Vehicle - w/ S.B.I.	12
Robbery of Motor Vehicle - w/out S.B.I.	9
Theft - Unlawful Taking; > \$100,000	8
Theft - Unlawful Taking - During Disaster	7
Theft - Unlawful Taking; >\$50,000-\$100,000	7
Theft - Unlawful Taking; >\$25,000-\$50,000	6
Theft - Unlawful Taking; >\$2,000-\$25,000/Firea	5
Theft - Unlawful Taking; \$2,000 or < frm pers./b	3
Theft - Unlawful Taking; \$200 - \$2,000	3
Theft - Unlawful Taking;OGS 3 Unk	3
Theft - Unlawful Taking; \$50 - < \$200	2
Theft - Unlawful Taking; < \$50	1
Theft - Deception; > \$100,000	8
Theft - Deception; >\$50,000-\$100,000	7
Theft - Deception; >\$25,000-\$50,000	6
Theft - Deception; >\$2,000-\$25,000/Firearm/Au	5
Theft - Deception; \$2,000 or < frm pers./by thre	3
Theft - Deception; \$200 - \$2,000	3
Theft - Deception; OGS 3 Unk	3

Offense Label	OCS
Theft - Deception; \$50 - < \$200	2
Theft - Deception; < \$50	1
Theft - Extortion; > \$100,000	8
Theft - Extortion; >\$50,000-\$100,000	7
Theft - Extortion; >\$25,000-\$50,000	6
Theft - Extortion; >\$2,000-\$25,000/Firearm/Aut	5
Theft - Extortion; \$2,000 or < frm pers./by threa	4
Theft - Extortion; \$200 - \$2,000	4
Theft - Extortion; OGS 4 Unk	4
Theft - Extortion; \$50 - < \$200	2
Theft - Extortion; < \$50	1
Theft - Lost Property; > \$100,000	8
Theft - Lost Property; >\$50,000-\$100,000	7
Theft - Lost Property; >\$25,000-\$50,000	6
Theft - Lost Property; >\$2,000-\$25,000/Firearm	5
Theft - Lost Property; \$2000 or < frm pers./by t	3
Theft - Lost Property; \$200 - \$2,000	3
Theft - Lost Property; OGS 3 Unk	3
Theft - Lost Property; \$50 - < \$200	2
Theft - Lost Property; < \$50	1
Theft - Rec. Stolen Prop.; >\$100,000	8
Theft - Rec. Stolen Prop.; During a Disaster	7
Theft - Rec. Stolen Prop.; >\$50,000-\$100,000	7
Theft - Rec. Stolen Prop.; >\$25,000-\$50,000	6
Theft - Rec. Stolen Prop.; >\$2,000-\$25,000/Fir	5
Theft - Rec. Stolen Prop.; \$2,000 or < frm pers.	3
Theft - Rec. Stolen Prop.; \$200 - \$2,000	3
Theft - Rec. Stolen Prop.; OGS 3 Unk	3
Theft - Rec. Stolen Prop.; \$50 - < \$200	2
Theft - Rec. Stolen Prop.; < \$50	1
Theft of Services; > \$100,000	8
Theft of Services; >\$50,000-\$100,000	7
Theft of Services; >\$25,000-\$50,000	6
Theft of Services; > \$ 2,000 - \$25,000	5
Theft of Services; \$2,000 or < frm pers./by thr	3
Theft of Services; \$ 200 - \$2,000	3
Theft of Services; OGS 3 Unk	3
Theft of Services; \$50-\$200	2
Theft of Services; Sale/Transfer of Device for D	1
Theft - Fail Disp of Funds; >\$100,000	8
Theft - Fail Disp of Funds; >\$50,000-\$100,000	7
Theft - Fail Disp of Funds; >\$25,000-\$50,000	6
Theft - Fail Disp.; > \$2,000-\$25,000/Firearm/Au	5
Theft - Fail Disp.; \$2,000 or < frm pers./by threa	3
Theft - Fail Disp of Funds; \$200 - \$2,000	3
Theft - Fail Disp of Funds; OGS 3 Unk	3
Theft - Fail Disp of Funds; \$50 - < \$200	2
Theft - Fail Disp of Funds; < \$50	1
Unauthorized Use of Automobile - During Disas	7
Unauthorized Use of Automobile/Vehicle	2
Retail Theft - During a Disaster	7
Retail Theft - >\$2000, Firearm, Auto etc.	5
Retail Theft - 3rd/Subsequent Offense	3
Retail Theft - 1st/2nd Offense & \$150 or more	2
Retail Theft - 2nd Offense & < \$150	2

Offense Label	OGS
Library Theft - 3rd/Subsequent Offense	5
Library Theft - 1st/2nd Offense & \$150 or more	3
Library Theft - 2nd Offense & < \$150	2
Theft - Trade Secrets by Force, Violence, Burgl	7
Theft - Trade Secrets	5
Theft - Unpub Drama/Etc.; > \$2,000	5
Theft - Unpub Drm./Etc.; \$2,000 or < frm pers./	3
Theft - Unpub Drama/Etc.; \$200-\$2,000	3
Theft - Unpub Drama/Etc.; OGS 3 Unk	3
Theft - Unpub Drama/Etc.; \$50-<\$200	2
Theft - Unpub Drama/Etc.; < \$50	1
Theft - Leased Property; > \$100,000	8
Theft - Leased Property; >\$50,000-\$100,000	7
Theft - Leased Property; >\$25,000-\$50,000	6
Theft - Leased Prop.; >\$2,000-\$25,000/Firearm	5
Theft - Leased Prop.; \$2,000 or < frm pers./by t	3
Theft - Leased Property; \$200 - \$2,000	3
Theft - Leased Property; OGS 3 Unk	3
Theft - Leased Property; \$50 - < \$200	2
Theft - Leased Property; < \$50	1
Unlawful Use of Computer - Destroy Data	5
Unlawful Use of Computer - Access/Password	3
Forgery - Government Documents/Stocks/Bond	4
Forgery - Documents of Legal Relations (will, d	3
Forgery - Other	3
Simulating Objects of Antiquity/Etc.	3
Fraudulent Destruction/Recordable Instruments	5
Tamper w/ Records or Identification - Writings	3
Bad Checks; \$200 - < \$500	1
Bad Checks; \$500 - < \$1,000	2
Bad Checks; \$1,000 - < \$75,000	3
Bad Checks; \$75,000 or more	5
Bad Checks; 3rd/subs offense, or <\$75,000	3
Bad Checks; 3rd/subs offense, or \$75,000>	5
Bad Checks - OGS 3 Unk	3
Bad Checks - OGS 5 Unk	5
Credit Cards; More than \$500	3
Credit Cards; \$50 - < \$500	2
Deceptive Business Practices - > \$2,000	5
Deceptive Business Practices - \$200-\$2,000	3
Deceptive Business Practices - < \$200	2
Deceptive Business Practices - amount unknow	2
Deceptive Business Practices - >\$2,000;victim	7
Deceptive Bus. Practices-\$200-\$2,000; victim 6	5
Deceptive Business Practices-<\$200; victim 60	3
Deceptive Bus. Practices-amt unknown; victim	3
Deceptive Business Practices - OGS 2 Unk	2
Deceptive Business Practices - OGS 3 Unk	3
Deceptive Business Practices - OGS 5 Unk	5
Deception Relating To Kosher Foods	1
Deception Relating to Minority/Women's Busine	4
Commercial Bribery and Breach of Duty	2
Rigging Publicly Exhibited Contest	3
Defrauding Secured Creditors	2
Fraud in Insolvency	2
Receiving Deposits - Failed Institution	2
Misapp. of Entrusted Property - Over \$50	2

Offense Label	OGS
Misapp. of Entrusted Property - \$50 or Less	1
Secure Execution of Documents by Deception	2
Falsely Impersonating Persons Privately Emplo	2
Copying; Recording Devices - 2nd or subseq c	7
Copying; Recording Dev. - 100+ motion pict./10	5
Copying; Recording Dev. - any othr violation 2n	5
Copying; Recording Devices - any other violatio	3
Copying; Rec. Dev. - OGS 5 Unk	5
Unlawful Oper Recrd Dev. in Mot. Pic. Theater-	4
Unlawful Oper Recrd Dev. in Mot. Pic. Theater	3
Insurance Fraud	4
Insurance Fraud	3
Washing Vehicles Titles	4
Trademark Counterfeiting	7
Trademark Counterfeiting	5
Trademark Counterfeiting	3
Bigamy	3
Incest	7
Concealing Death of Child	3
Endangering Welfare of Child-Course of condu	6
Endangering Welfare of Children	5
Dealing in Infant Children	4
Bribery in Official & Political Matters	5
Threats in Official & Political Matters - for Crime	5
Threats in Official & Political Matters	2
Retaliation for Past Official Action	2
Perjury	5
False Swearing - Official Proceeding	2
False Swearing - Required To Be Sworn	1
Unsworn Falsification to Author.-Intent To Misl	2
Unsworn Falsification to Author.-Under Penalty	1
False Alarm To Agency of Public Safety	3
False Reports To Law Enforcement Authorities	2
False Reports To Law Enforcement Authorities	1
Witness or Informant Taking Bribe	5
Tampering with Physical Evidence	2
Tampering with Public Records; Defraud	4
Tampering with Public Records	2
Impersonating a Public Servant	2
Impersonating a Notary Public	3
Intimidation of Witness/Victim-Aggravated	7
Intimidation of Witness/Victim	5
Retaliate Against Witness/Victim-Aggravated	8
Retaliate Against Witness/Victim	5
Obstructing Administration of Law or Other Gov	3
Obstructing of Justice by Picketing	2
Unlawfully Listening into Deliberations of Jury	1
Resisting Arrest; Etc.	2
Hindering Apprehension - Charge F1 or F2	4
Hindering Apprehension	2
Aiding Consummation of Crime - F1 or F2	5
Aiding Consummation of Crime	2
Compounding	2
Barratry	1
Contempt of General Assembly	1
Dealing in Proceeds of Unlawful Activities	8
Escape - Other Escapes; this Subsection	6

Offense Label	OGS
Escape - From Unsecured Facility	5
Escape - Otherwise	3
Weapons or Implements for Escape-Provid. to	8
Weapons or Implements for Escape-Poss. by I	4
Weapons or Implements for Escape-Tools	3
Contraband - Provide contr. sub. to inmate	7
Contraband-Poss. C.S. by inmate(before 8/25/9	3
Contraband-Poss. C.S. by inmate(eff. 8/25/97)	7
Contraband - Other	3
Contraband - Money	1
Contraband - OGS 3 Unk	3
Default in Required Appearance-Felony	4
Default in Required Appearance-Non-felony	2
Absconding Witness	1
Flight To Avoid Apprehension - Felony	5
Flight To Avoid Apprehension - Misd.	2
Official Oppression	2
Speculating On Official Action	2
Riot	4
Failure to Disperse Upon Official Order	2
Disorderly Conduct	1
Harassment by Communication or Address	1
Loitering and Prowling At Night Time	1
Obstructing Highway; Etc. - After Warning	1
Disrupting Meetings and Processions	1
Desecration of Venerated Objects	2
Abuse of Corpse	3
Cruelty To Animals - Kill/Maim Domestic	3
Cruelty To Animals - Kill/Maim Zoo	5
Cruelty To Animals - Kill/Maim Dogs & Cats, 1s	3
Cruelty To Animals - Kill/Maim Dogs & Cats, 2n	5
Cruelty To Animals - Animal Fighting	5
Cruelty To Animals - OGS 5 Unk	5
Lotteries; Etc.	3
Gambling Devices/Gambling/Etc.	3
Pool Selling and Bookmaking	3
Prohibiting of Paramilitary Training	3
Facsimile Bombs	2
Interception of Wire/Oral Communication	5
Possess/Etc. of Interception Devices	5
Unlawful Use of Intercepted Communications	2
Prohibit Pen Register & Trap/Trace Device	1
Open Lewdness	1
Prostitution	1
Prostitution/ HIV/AIDS Related	5
Prostitution; Promoting	5
Prostitution; Promoting Involving Minors	8
Prostitution; Promoting/HIV/AIDS Related	5
Prostitution; Promoting	3
Prostitution; Patronizing	1
Prostitution; Patronizing/HIV/AIDS Related	5
Prostitution; OGS 5 Unk	5
Obscene Materials - General	3
Obscene Materials - Subsequent Offense	5
Public Exhibit of Insane/Deformed Person	2
Firearms; Poss. by Former Convict-Loaded	5
Firearms; Poss. by Former Convict-Unloaded	4

Offense Label	OGS
Firearms; Carried w/o License - Loaded	5
Firearms; Carried w/o License - Unloaded	4
Firearms; Carried w/o Lic.;no crim. viol.-Load/Un	3
Firearms; Prohibited Conduct - Emergency	3
Firearms; Carrying in Philadelphia-Loaded	5
Firearms; Carrying in Philadelphia-Unloaded	4
Firearms; Possession by Minor	3
Firearms; Delivery to Minor by Adult	7
Firearms; Unlawful Delivery	2
Firearms; Selling to Ineligible	5
Firearms; Unlawful Background Check	5
Firearms; False Statements	5
Firearms; Sale or Transfer - Subseq. Offense	7
Firearms; OGS 5 Unk	5
Firearms; Dealer To Be Licensed	3
Firearms; Breach of License of Dealer	3
Firearms; Lending Prohibited	3
Firearms; False Identity for Purchase	3
Firearms; Altering I.D.	7
Firearms; Certain Bullets Prohibited	5
Firearms; Proof of License	3
Carrying Explosives On Conveyances	3
Shipping Explosives	3
Corruption of Minors-when of sexual nature	5
Corruption of Minors	4
Corruption of Minors -2nd violat. of truancy in y	1
Sale or Lease of Weapons or Explosives	4
Sale of Starter Pistols (to Minors)	4
Sale of Air Rifles - Sale or Transfer	1
Furnish Cigarettes To Minors - 3rd/Subsequent	1
Misrepresentation of Age To Secure Alcohol - 2	1
Representing that Minor is of Age	1
Inducement of Minors to Buy Liquor	1
Selling or Furnishing Liquor to Minors	1
Manufacture or Sale of False I.D. Card	2
Carrying a False I.D. Card - 2nd/Subsequent	1
Tattooing (a Minor)	1
Sexual Abuse of Children - Taking Photo	7
Sexual Abuse of Children - Sell Photo	6
Sexual Abuse of Children - Possess Photo	5
Scattering Rubbish - Subsequent Offense	1
Scattering Rubbish - Owner/Oper. 1st Offense	2
Scattering Rubbish - Owner/Oper. or 2nd/Subs	3
Public Nuisances	2
Dealing in Military Decorations	1
False Registration of Domestic Animals	1
Use of Union Labels	1
Extension of Water Line	1
Unauthorized Sale of Tickets	1
Administer Drugs to Race Horses	3
Horse Racing	1
Fortune Telling	1
Unlawful Actions by Athlete Agents	3
Sale of Solidified Alcohol	2
Labeling of Solidified Alcohol	3
Sale or Illegal Use of Certain Solvents	1
Incendiary Devices	3

Offense Label	OGS
Out-of-State Convict Made Goods	2
Unlawful Advertising of Insurance Business	2
Unlawful Coercion in Contracting Insurance	3
Furnishing Free Insurance as Inducement	1
Unlawful Collection Agency Practices	1
Unlawful collection Agency Practices	1
Debt Pooling	1
Buying or Exchanging Food Stamps(\$1,000 or	5
Buying or Exchanging Food Stamps(< \$1,000)	3
Fraudulent Traffic in Food Orders(\$1,000 or mo	5
Fraudulent Traffic in Food Orders(< \$1,000)	3
Keeping Bucket-Shop	1
Accessories in Conduct of Bucket-Shop	1
Maintaining Premises of Bucket-Shop	1
Bucket-Shop Contracts	1
Lie Detector Tests (Req. for Employment)	2
Demanding Property to Secure Employment	1
Discrimination On Account of Uniform	2
Unlawful Sale of Dissertations; Etc.	1
Disclosure of Confidential Tax Information	1
Operation of Unauthorized Bottle Club	1
Architects Interest in Public Works Contracts	1
Appointment of Special Police	1
Breach of Privacy	2
Furnishing Drug-Free Urine	1
Fugitive from Justice	1
Bondsman License & Registration	1
Detectives; License;Cards;Shields;Badges	1
Lethal Weapons Training Act Violation	1
Violate Driver Education Regulations	1
Fraudulent Application Scholarship Award	5
False Stmt to Parent Assistance Authority	1
Deface/Destroy Property Used for School	1
Electors; False Affidavits or Statements	1
Macing/Political Assess. Contrib.	1
Candidates Reporting Law Violations	1
Candidates Inc. Exp. Reporting	1
Candidates Advertising	1
Election Code Violation; Misc. 3501--3553	1
Election Code Violation; Misc. 3501--3553	2
Election Code Violation; Misc. 3501--3553	3
Election Code Violation; Misc. 3501--3553	1
Fish Law Violations: 101--7314	1
Fish Law Violations: 101--7314	3
Fish Law Violations: 101--7314	5
Disturbing Waters	1
Reckless Operation of Watercraft	1
Operating Watercraft under Influence	1
Homicide by Watercraft while DUI	5
Homicide by Watercraft	3
Violation of Food Laws; 3rd Off. w/in 2 yrs.	1

Offense Label	OGS
Violation of Food Laws; 3rd Off.	1
Violation of Food Laws; 3rd Off. w/in 2 yrs.	1
Violation of Food Laws; 2nd Off	1
Violation of Food Laws	1
Violation of Food Laws; 2nd Off	1
Violation of Food Laws	1
Violation of Food Laws; 2nd Off	1
Set Fire to Woods w/o Permission of Owner	1
Maliciously Set Fire to Woods	5
Endang/Threat Species-Poss.Transp.Cap or Ki	1
Endang/Threat Species-Purch.Sale,Barter/Exc	2
Injury to Human Being	1
Killing Human Being	2
Public Water Supply Act: Willful/Negligent	1
Public Water Supply Act: 2nd Offense	2
Safe Drinking Water Act: Willful/Negligent	1
Safe Drinking Water Act: 2nd Offense	2
Safe Drinking Water: Tampering	3
Sell Caustic Material: No Label	1
Fireworks Law	1
Air Pollution Act Violation	2
Negligent Release Hazardous Air Pollutant	1
Knowingly Release: Hazard. Air Pollutant	9
Solid Waste Mngmnt Act: Violation	1
Solid Waste Mngmnt Act: Violation 2nd Off	2
Transports Hazardous Waste w/o Permit	7
Know. Transp. Hazardous Waste w/o Permit	9
Manufacture/Sale of Adulterated C.S.-1st Offen	4
Manufacture/Sale of Adulterated C.S. - 2nd/Sub	4
Adulterate/Misbrand C.S. - 1st Offense	4
Adulterate/Misbrand C.S. - 2nd/Subsequent Off	4
False Advertisement - 1st Offense	4
False Advertisement - 2nd/Subsequent Offense	4
Removal of Detained Substance - 1st Offense	5
Removal of Detained Substance - 2nd/Subseq.	5
Adulterate Label: C.S. for Sale - 1st Offense	4
Adulterate Label: C.S. for Sale - 2nd/Subsq. Of	4
Forging ID under Act - 1st Offense	5
Forging ID under Act - 2nd/Subsequent Offens	5
Place Trademark To Defraud - 1st Offense	5
Place Trademark To Defraud - 2nd/Subsequen	5
Selling Defrauded Trademark - 1st Offense	5
Selling Defrauded Trademark - 2nd/Subsequen	5
Selling Equipment To Defraud - 1st Offense	5
Selling Equipment To Defraud - 2nd/Subseque	5
Illegal Sale of Nonproprietary Drug - 1st Offens	4
Illegal Sale of Nonproprietary Drug - 2nd/Subse	4
Illegal Pharmacy Operations - 1st Offense	5
Illegal Pharmacy Operations - 2nd/Subsequent	5
Acq. CS by fraud: Drug Unknown	3
Acq. CS by fraud: Drug Unknown	3

Offense Label	OCS
Acq. CS by fraud: Drug Unknown	5
Acq. CS by fraud: Drug Unknown	6
Acq. CS by fraud: Drug Unknown	7
Acq. CS by fraud: Drug Unknown	8
Acq. CS by fraud: Drug Unknown	9
Acq. CS by fraud: Drug Unknown	10
Acq. CS by fraud: Drug Unknown	11
Acq. CS by fraud: Drug Unknown	13
Acq. CS by fraud: Drug Unknown	.
Acq. CS by fraud: Drug Unknown	.
Acq. CS by fraud: Drug Unknown	.
Acq. CS by Fraud: Heroin (< 1g)	6
Acq. CS by Fraud: Heroin (1 - < 10 g)	7
Acq. CS by Fraud: Heroin (10 - < 50 g)	8
Acq. CS by Fraud: Heroin (50 - < 100 g)	10
Acq. CS by Fraud: Heroin (100 - 1000 g)	11
Acq. CS by Fraud: Heroin (> 1000 g)	13
Acq. CS by Fraud: Narcotic (< 2.5 g)	6
Acq. CS by Fraud: Narcotic (2.5 - < 10 g)	7
Acq. CS by Fraud: Narcotic (10 - < 50 g)	8
Acq. CS by Fraud: Narcotic (50 - < 100 g)	10
Acq. CS by Fraud: Narcotic (100 - 1000 g)	11
Acq. CS by Fraud: Narcotic (> 1000 g)	13
Acq. CS by Fraud: Cocaine (< 2.5 g)	6
Acq. CS by Fraud: Cocaine (2.5 - < 10 g)	7
Acq. CS by Fraud: Cocaine (10 - < 50 g)	8
Acq. CS by Fraud: Cocaine (50 - < 100 g)	10
Acq. CS by Fraud: Cocaine (100 - 1000 g)	11
Acq. CS by Fraud: Cocaine (> 1000 g)	13
Acq. CS by Fraud: Methamphet.(< 2.5 g)	6
Acq. CS by Fraud: Methamphet.(2.5 - < 10 g)	7
Acq. CS by Fraud: Methamphet.(10 - < 50 g)	8
Acq. CS by Fraud: Methamphet.(50 - < 100 g)	10
Acq. CS by Fraud: Methamphet.(100 - 1000 g)	11
Acq. CS by Fraud: Methamphet.(> 1000 g)	13
Acq. CS by Fraud: PCP (< 2.5 g)	6
Acq. CS by Fraud: PCP (2.5 - < 10 g)	7
Acq. CS by Fraud: PCP (10 - < 50 g)	8
Acq. CS by Fraud: PCP (50 - < 100 g)	10
Acq. CS by Fraud: PCP (100 - 1000 g)	11
Acq. CS by Fraud: PCP (> 1000 g)	13
Acq. CS by Fraud: Marij(<1 lb. or <10 plants)	3
Acq. CS by Fraud: Marij(1-<10lbs or 10-< 21pla	5
Acq. CS by Fraud: Marij(10-<50lbs or 21-<51 p	7
Acq. CS by Fraud: Marij(50> lbs or 51>plants)	8
Acq. CS by Fraud: Sch II pills(Narc)(1 - 20 pills)	6
Acq. CS by Fraud: Sch II pills(Narc)(21 - 50 pill	8
Acq. CS by Fraud: Sch II pills(Narc)(51 - 100 pi	9
Acq. CS by Fraud: Sch II pills(Narc)(> 100 pills)	10

Offense Label	OGS
Deliv by pract'r: Meth. (10 - < 50 g)	8
Deliv by pract'r: Meth. (50 - < 100 g)	10
Deliv by pract'er: Meth. (100 - 1000 g)	11
Deliv by pract'r: Meth. (> 1000 g)	13
Deliv by pract'r: PCP (< 2.5 g)	6
Deliv by pract'r: PCP (2.5 - < 10 g)	7
Deliv by pract'r: PCP (10 - < 50 g)	8
Deliv by pract'r: PCP (50 - < 100 g)	10
Deliv by pract'r: PCP (100 - 1000 g)	11
Deliv by pract'r: PCP (> 1000 g)	13
Deliv by pract'r: Marij (< 1 lb. or < 10 plants)	3
Deliv by pract'r: Marij (1- <10lbs or 10- <21 plan	5
Deliv by pract'r: Marij(>10- <50 lbs or 21- <51 p	7
Deliv by pract'r: Marij(50 > lbs. or 51 > plants)	8
Deliv by practitioner: Schedule I; II	5
Deliv by practitioner: Schedule III	5
Deliv by practitioner: Schedule IV	5
Deliv by practitioner: Schedule V	3
Illegal Retail Sale - 1st Offense	4
Illegal Retail Sale - 2nd/Subsequent Offense	4
Simple Possession	3
Simple Possession - 2nd/Subsequent Offense	3
Dispense Drugs w/o Label - 1st Offense	4
Dispense Drugs w/o Label - 2nd/Subsequent O	4
Illegal Sale Container - 1st Offense	4
Illegal Sale Container - 2nd/Subsequent Offens	4
Intentional Unauthorized Purchase - 1st Offens	5
Intentional Unauthorized Purchase - 2nd/Subse	5
Divulging Trade Secret - 1st Offense	4
Divulging Trade Secret - 2nd/Subsequent Offen	4
Failure To Keep Records - 1st Offense	2
Failure To Keep Records - 2nd/Subsequent Off	2
Refusal of Inspection - 1st Offense	2
Refusal of Inspection - 2nd/Subsequent Offens	2
Unauthorized Removal of Seals	5
Failure To Obtain License - 1st Offense	2
Failure To Obtain License - 2nd/Subsequent Of	2
Manufacture by Unauthorized Party	5
Distribution by Registrant of Schedule I or II	5
Use of Fictitious Registration Number	5
Furnish False Application Material	5
Production of Counterfeit Trademarks	5
PWID: Drug Unknown	3
PWID: Drug Unknown	3
PWID: Drug Unknown	5
PWID: Drug Unknown	6
PWID: Drug Unknown	8

Offense Label	OCS
PWID: Drug Unknown	7
PWID: Drug Unknown	10
PWID: Drug Unknown	11
PWID: Drug Unknown	13
PWID: Drug Unknown	.
PWID: Drug Unknown	.
PWID: Drug Unknown	.
PWID: Heroin (< 1 g)	6
PWID: Heroin (1 - < 10g)	7
PWID: Heroin (10 - < 50g)	8
PWID: Heroin (50 - < 100g)	10
PWID: Heroin (100 - 1000g)	11
PWID: Heroin (> 1000g)	13
PWID: Narcotic (< 2.5 g)	6
PWID: Narcotic (2.5 - < 10g)	7
PWID: Narcotic (10 - < 50g)	8
PWID: Narcotic (50 - < 100g)	10
PWID: Narcotic (100 - 1000g)	11
PWID: Narcotic (> 1000g)	13
PWID: Cocaine (< 2.5 g)	6
PWID: Cocaine (2.5 - < 10 g)	7
PWID: Cocaine (10 - < 50 g)	8
PWID: Cocaine (50 - < 100 g)	10
PWID: Cocaine (100 - 1000 g)	11
PWID: Cocaine (> 1000 g)	13
PWID: Methamphetamine (< 2.5 g)	6
PWID: Methamphetamine (2.5 - < 10 g)	7
PWID: Methamphetamine (10 - < 50 g)	8
PWID: Methamphetamine (50 - < 100 g)	10
PWID: Methamphetamine (100 - 1000 g)	11
PWID: Methamphetamine (> 1000 g)	13
PWID: PCP (< 2.5 g)	6
PWID: PCP (2.5 - < 10 g)	7
PWID: PCP (10 - < 50 g)	8
PWID: PCP (50 - < 100 g)	10
PWID: PCP (100 - < 1000 g)	11
PWID: PCP (> 1000 g)	13
PWID: Marijuana (<1 lb. or < 10 plants)	3
PWID: Marijuana (1-<10lbs or 10-<21plnts.)	5
PWID: Marijuana (10-< 50lbs or 21-<50 plnts.)	7
PWID: Marijuana (50> lbs or 51>plants)	8
PWID: Schedule I; II	5
PWID: Schedule III	5
PWID: Schedule IV	5
PWID: Schedule V	3
Possession:Small Amt of Marij(30g marij or 8g	1
Possession of Drug Paraphernalia	1
Paraphernalia: PWID - Not To a Minor	3
Paraphernalia: PWID - Under 18 & 3yrs. or mor	4

Offense Label	OGS
Place Ad for Drug Paraphernalia	1
Illegal Sale of Noncontrolled Substance	6
Poss W/ Intent to Deliver Designer Drugs	5
Possession >30 Doses: Anabolic Steroid	4
Possession >30 Doses: Steroid; 2nd/Subseq O	4
Fraud in Procuring Insurance/Collect Claims	1
Violation of Insurance Laws	1
Borrowing/Renting of Securities	5
Unauth. Practice of Law	1
Interfere with Jury Selection	2
Tampering with Juror Names	2
Tampering with Jurors	2
Professional Bondsman License Violation	1
Criminal Contempt	1
Failure to Register (sexually viol. offenses)	6
Failure to Register (sexually viol. predator)	6
Failure to Register (resid./sexually viol. predato	6
Bakery Sanitation; 3rd Offense	1
Lead Manufacturing Violation	1
Require Deduction for Unemployment Ins.	1
Viol. of Liquor/Alcohol Code (4-494)	1
Viol. of Liquor/Alcohol Code (5-519)	1
Viol. of Liquor/Alcohol Code (7-751)	1
Viol. of Liquor/Alcohol Code (326)	1
Interfere w/ Mental Health Patients	1
Welfare Fraud; < \$1000; or attempts	1
Welfare Fraud; \$1000 - \$1499	2
Welfare Fraud; \$1500 - \$2999	3
Welfare Fraud; > or = \$3000	5
Banking Institutions Violation Section 487	1
Medicaid Fraud & Abuse	5
Medicaid Fraud & Abuse; 2nd Offense	7
Medicaid Fraud; <\$1000	1
Medicaid Fraud; \$1000 - \$1499	2
Medicaid Fraud; \$1500 - \$2999	3
Medicaid Fraud; >= \$3000	5
Unauthorized Practice of Dentistry	1
Pharmacy Act Violation; 1st or 2nd Off.	1
Medical Practice Act of 1985	1
Mortgage Bankers & Brokers Act	5
Practical Nurse Law	1
Pharmacy Act Violation	1
Ethics Act	1
Ethics Act	5

Offense Label	OGS
Unauthorized Operation of Trucks	1
Securities Act Violation (1-101 -- 1-704)	1
Violate Gross Receipts; Except Tax	1
Liquid Fuels Tax Violation	1
Fuel Use Tax Violation	1
State Lottery: Sale by Non-Licensed Person	1
Failure to Remit Sales Tax	1
Tax Violations	1
Failure to File Corp. Tax	1
Sell Unstamped Cigs. Intentionally	5
Possess Over 1000 Unstamped Cig's	1
Possess Unstamped Cig's Intentionally	5
Counterfeit Cigarette Tax Stamp	5
Tamper w/ Impound Sticker on Machine	1
Explosives Act Violation	1
Precious Metals Dealers Act Violation	1
Drivers required to be Licensed (2nd/Subsq)[65	1
Drive w/ Susp. License (2nd/Subsq)[6503]	1
Racing On Highways (2nd/Subsq)[6503]	1
Stripping Abandoned Vehicle (Subsq Offense)	1
DUI - M-2	2
DUI - M-1	3
Homicide by Vehicle (w/DUI Conviction)	8
Homicide by Vehicle	6
Fleeing or Eluding Police Officer	2
No Lights/Avoid Arrest (2nd/Subsq)[6503]	1
Homicide by Vehicle While DUI	8
Aggravated Assault by Vehicle While DUI	7
Accid Invol Death/Pers. Inj.-Result in Death	6
Accid Invol Death/Pers. Inj.-Result in S.B.I.	5
Accid Invol Death/Pers. Inj.-Failure Stop	3
Accid Invol Death/Pers. Inj.-License Suspended	2
Accid Invol Death/Pers. Inj.-No Lic. Issued	1
Accid Invol Death/Pers. Inj.-S.B.I., Lic. Suspend	4
Accid Invol Death/Pers. Inj.-Death, No Lic. Issu	5
Accid Invol Death/Pers. Inj.-S.B.I., Lic. Suspend	3
Accid Invol Death/Pers. Inj.-Death, No Lic. Issue	4
Accid Invol Damage to Attended Vehicle or Pro	1
False Report/Knowl. (2nd/Subsq)[6503]	1
Investigation by Police Officers - Records	1
Falsify Vehicle Identification - Fraudulent Inten	3
Falsify Vehicle Identification	1
Deal in Vehicles with Removed ID - Fraudulent	5
Deal in Vehicles with Removed Identification	1
Deal in Title/Plates for Stolen Vehicle	3
False Report of Theft or Conversion of Vehicle	1
False Application for Title or Registration	3
Altered or Forged Title or Plates	3
Prohib. Activ. Relat. to Odometers(1st or 2nd/S	4
Permiss Activ. Relat. to Odometer(1st or 2nd/S	4
Odometer Disclosure Req. (1st or 2nd/Subsequ	4
Odometer Mileage Statm Retention (1st or 2nd	4
Consp. to Violate Odometer Req.(1st or 2nd/Su	4
Violation of Unfair Trade Practices (1st or 2nd/S	4

Offense Label	OGS
Unauthorized Disp. of Forms - (pert. to ATV/Sn	1
Willful Viol. of Hazard. Materials Transpor.(2nd/	2
Willful Viol. of Hazard. Materials Transpor.(1st	1
Failure to Remit Oil Franchise Tax	1
Workmen's Insurance Payments Denied	1
Workmen's Comp. - Insurance Fraud	5

Appendix A3: Reasons for Mitigating or Aggravating Circumstances or Departure from Sentencing Guidelines

Mitigating & Departure Below Reasons - Offender Related

0300	Offender is in poor physical health/needs hospitalization
0301	Offender's family is ill/needed at home
0302	Offender is pregnant/offender's wife is pregnant
0303	Offender in poor physical health/needs hospitalization
0310	Offender is drug dependent/needs treatment
0311	Offender is alcohol dependent/needs treatment
0312	Offender needs treatment/not specified
0320	Mental health issues
0321	Offense out of character for offender
0322	Offender is productive citizen
0330	Offender is supporting or caring for family/wife/other dependents
0331	Offender is employed/might lose job
0332	Offender has responsible/important position in community
0333	Offender has good reputation in community/good family background
0334	Offender not a threat to society
0335	Family is supportive of offender
0336	Offender is attending school
0340	Offender has a good prior employment record
0341	Offender is unemployed
0342	Offender is economically deprived
0343	Offender is poorly educated/limited intelligence
0344	Offender is highly educated
0345	Offender is young
0346	Offender is old
0347	Offender is female
0349	Offender has a good military record
0350	Offender was motivated by a desire to provide necessities for family or self
0360	Offender has positive attitude/demeanor
0361	Offender is a good candidate for rehabilitation
0362	Offender was determined not to be a sexually violent predator
0363	Offender was determined to be a sexually violent predator

Mitigating & Departure Below Reasons - Court Related

0400	Recommendation of the prosecution
0401	Recommendation of the defense attorney
0402	Recommendation of the court staff/PSI
0403	Recommendation of the victim
0404	Recommendation of character witnesses
0405	Police recommendation
0406	Weak prosecution evidence
0407	Evidence supports offender's justification
0410	Interest of justice
0422	Offender waived a jury trial (Save city cost of trial)
0430	Offender shows remorse
0431	Offender made/attempted to make restitution to victim
0432	Prison (or more time in prison) will not serve a useful purpose
0440	Substantial risk of victimization if incarcerated

- 0448 To enable restitution to be made
- 0450 Prison or jail is overcrowded
- 0451 Keep in county jail
- 0452 Keep offender in minimum security facility
- 0453 Rule 1100 problem (180 day rule) (Speedy Trial)

Mitigating & Departure Below Reasons - Court Related (continued)

- 0460 Plea agreement
- 0462 Waiver Court
- 0463 Drug Court
- 0464 Failed to Appear
- 0465 Special Calendar Room Program
- 0466 Special Court Program - Other
- 0470 Offender pleaded guilty/nolo contendere
- 0480 To ensure long period of supervision after incarceration
- 0489 It is rough/it is sufficient
- 0496 Mandatory law
- 0497 To enable other jurisdiction to pay confinement costs
- 0498 Minimum guidelines exceed statutory limit

Mitigating & Departure Below Reasons - Prior Record Related

- 0200 No prior adult record or minor adult record
- 0201 Non-violent prior adult record
- 0202 Prior adult record is very old
- 0210 No prior juvenile record
- 0211 Prior juvenile record is very old
- 0212 Offender's conduct has improved
- 0220 Offender serving sentence for other crime(s)-prior
- 0221 Offender sentenced on other charges-current
- 0222 Offender on bail or probation/parole on other charges
- 0223 Prior record score overstates offender's prior record
- 0250 Offender has not been incarcerated before

Mitigating & Departure Below Reasons - Other

- 0002 Sentence exceeds statutory limit but falls in Standard Range
- 0011 Sessoms
- 0020 Guidelines are unwarranted invasion of judicial discretion
- 0030 Guideline sentences are too severe
- 0040 Guidelines are too rigid
- 0050 Guideline sentences inappropriate
- 0088 Intent of justice
- 0097 Court erred in calculating guideline ranges
- 0098 Other/misc. departure
- 0099 No reasons given
- 0100 Victim provoked/induced crime
- 0101 Victim facilitated the crime
- 0102 Victims were members of offender's family
- 0103 Victims were friends/acquaintances
- 0110 Offender played a minor or passive role in the crime
- 0111 Offender was an accomplice only
- 0112 Offender acted under coercion or duress but not sufficient to remove guilt

- 0113 Offender acted out of jealousy or passion
- 0114 Offender used less force than usual for this type of crime
- 0115 Offender under influence of drugs or intoxicants during crime
- 0116 Offender lacked capacity for judgement during crime
- 0117 Offense was not premeditated
- 0118 Co-defendant getting same sentence
- 0119 Offender did not intend to violate the law
- 0120 Crime relatively insignificant or less onerous than usual
- 0130 Offender did not cause or threaten injury
- 0131 Offender did not contemplate that his conduct would cause or threaten injury
- 0132 Spree crime

Aggravating & Departure Above Reasons - Offender Related

- 0700 Offender is drug abuser/drug dependent
- 0701 Offender is an alcoholic
- 0703 Offender is in poor physical health/needs hospitalization
- 0710 Mental health issues
- 0720 Offender is not local resident/no community ties
- 0730 Offender is unemployed
- 0731 Offender has a poor prior employment record
- 0732 Offender is economically deprived
- 0733 Offender is poorly educated
- 0734 Offender is highly educated
- 0735 Offender is young
- 0736 Offender is old
- 0738 Offender has a poor military record
- 0740 Offender is a poor candidate for rehabilitation
- 0742 Offender was determined to be a sexually violent predator

Aggravating & Departure Above Reasons - Court Related

- 0800 Recommendation of the prosecution
- 0801 Recommendation of the defense attorney
- 0802 Recommendation of the court staff/PSI
- 0803 Recommendation of the victim
- 0804 Recommendation of character witnesses
- 0805 Police recommendation
- 0810 Offender did not cooperate with police/prosecution
- 0811 Offender was disruptive/abusive during trial
- 0820 Offender did not plead guilty
- 0822 Offender did not waive a jury trial
- 0830 Offender shows no remorse
- 0831 Offender made no attempt to make restitution to victim
- 0840 Plea Agreement
- 0842 Waiver Court
- 0843 Drug Court
- 0844 Failed to Appear
- 0845 Special Calendar Room Program
- 0846 Special Court Program - Other
- 0850 To deter others
- 0860 A lesser sentence would depreciate the seriousness of the crime
- 0897 Sentenced under mandatory law on other charges

Aggravating & Departure Above Reasons –Offense Related

- 0500 Offender was leader/instigator - multiple participants
- 0501 Offender induced others to participate in crime
- 0502 Offender was hired/paid to commit crime
- 0503 Offender failed to assist victim/acted in disregard of victim
- 0504 Racially motivated crime
- 0510 Offender inflicted extreme physical cruelty on victim
- 0511 Offender inflicted extreme mental cruelty on victim
- 0512 Offender injured victim
- 0513 Injury substantially in excess of minimum necessary to prove crime
- 0514 Offender attempted/threatened to injure victim
- 0515 Offender held victim hostage/used victim as shield
- 0516 Possession of weapon
- 0520 Victim particularly vulnerable due to youth
- 0521 Victim particularly vulnerable due to old age
- 0522 Victim particularly vulnerable due to physical impairment
- 0523 Victim particularly vulnerable due to mental impairment
- 0524 Victim in care of/trust of/confidence of offender
- 0525 Victim was public official/law enforcement agent
- 0526 Multiple victims
- 0527 Victim particularly vulnerable due to sex (Female)
- 0530 Offense committed to gratify pleasure or for excitement
- 0540 Property loss/damage substantially in excess of amount necessary to prove c
- 0541 Offense more onerous/significant than usual
- 0550 Major drug trafficking crime
- 0560 White collar crime/violation of trust/public office/fiduciary obligation
- 0570 Organized crime
- 0580 Crime was act of terrorism
- 0590 Multiple current convictions

Aggravating & Departure Above Reasons -Prior Record Related

- 0600 Long prior adult felony record not reflected in guidelines
- 0601 Violent prior adult felony record not reflected in guidelines
- 0602 Long prior adult misdemeanor record not reflected in guidelines
- 0603 Serious prior adult misdemeanor record not reflected in guidelines
- 0604 Repeat criminal pattern/habitual offender/career criminal
- 0605 Danger to society
- 0606 Long prior juvenile record
- 0607 Violent prior juvenile record
- 0610 Failed on probation/community supervision in past
- 0615 Offender was escapee at time of offense
- 0620 Offender on parole/probation at time of arrest
- 0625 Offender on bail for prior charge
- 0626 Offender on bench warrant
- 0630 Prior juvenile record not reflected in guidelines
- 0640 Offender has prior arrests which did not result in convictions
- 0641 Offender has received an accelerated rehabilitative disposition in the past
- 0650 Offender has been previously incarcerated
- 0651 Spree crime

Aggravating & Departure Above Reasons - Other

- 0902 Sentence exceeds statutory limit but falls in standard range
- 0910 Guidelines are unconstitutional
- 0911 Sessoms
- 0930 Guideline sentences are too lenient
- 0950 Guideline sentences are inappropriate