Dietrich College Senior Honors Thesis

Effects of Federal Statutory Minimum Sentencing Laws on Plea Bargain Outcomes

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Introduction

Mandatory minimum sentencing laws and plea bargaining are two vital elements of the United States justice system. Lacking from current literature is a formal exploration of whether or not the existence of one has a causal relationship with the other. Whether or not the existence of mandatory minimums sentencing laws makes a difference in the plea bargain decision making process of defendants is an important research question that is addressed here. To provide a foundation of understanding of the current state of research on both plea bargains and mandatory minimums, a literature review will cover several different formulations of plea bargain decision making, including a shadow of trial model, econometric models, and game theory models, as well as other viewpoints examining plea bargains as a collective action problem among defendants, and a market to be regulated. Literature on mandatory minimums delves into the history of their enactment, the original motivations and rationales for imposing them, their effectiveness in achieving those goals, and the current state of how mandatory minimums are imposed across the country. Additional literature examines the connection between the two, insofar as it has been studied previously.

A final element of plea bargaining to be examined is risk preferences. The characteristics, both innate and with regard to lifestyle choices, of defendants that may make them more likely to be risk seeking or risk averse will be laid out as determined by existing research, in order to examine risk preferences in the context of plea bargain decision making.

A model of plea bargaining will be posited holding that a dependent variable, whether or not a defendant takes a plea agreement, is the result of numerous independent variables, including demographic factors (including those that elucidate risk preferences), facts of each case, and whether or not the defendant was subject to mandatory minimums for the crime in question. This

model will be justified using data from the Bureau of Justice Statistics Monitoring of Federal Criminal Sentences data series, with data from 2010-2013.

Binary logistic regression of tens of thousands of cases from the Bureau of Justice statistics data will demonstrate that whether or not a mandatory minimum is applicable to a case is a significant factor in determining whether or not a defendant accepts a plea bargain; the existence of a mandatory minimum makes the acceptance of a plea slightly more likely. These results, as well as a broader consideration of plea bargaining and mandatory minimums in the justice system, as well as suggestions for further research, will be discussed.

Plea Bargains: An Overview & the Shadow of Trial

An empirical research model of plea bargaining must be supported by a thorough understanding of the existing state of literature on the subject, to formulate the best model possible. A review of the current state of literature on plea bargaining begins with the popular view of the United States' justice system which shows the guilty defendant being arrested, charged, and sentenced--after having his fair shot to plead his case in front of a jury of his peers. In reality, the process looks very different for many; between 90 and 95 percent of all federal and state cases are disposed of with a plea agreement.[1] Because of this fact alone, plea bargains must be considered a vital area of study. Plea bargains allow defendants to plead guilty to either the most serious or a lesser charge that they have been accused of, and face a sentence less than the maximum possible sentence without going to trial. The difference between the sentence a defendant would face at trial and the sentence received via plea is a discount. It is determined through either a statutory determination of a sentence for a given crime, or through guidelines published either year by the United States Sentencing Commission, which lay out suggested

[1] Devers 2011

sentence ranges for every crime in the United States Code, as well as possible enhancements or mitigating factors.[2]

At the outset, a few novel features of plea agreements must be noted, the first being prosecutorial discretion. The process of plea bargaining takes the sentencing discretion out of the hands of judges, who must adhere to strict guidelines, and puts it into the hands of prosecutors, and, of course, defendants, who are not similarly constrained. Perhaps as a result of this, evidence demonstrates that those defendants who go to trial tend to receive harsher sentences, and plea agreement outcomes--that is, how harsh the sentence is--varies greatly be region of the country.[3] Significantly, defendants who face a more serious crime, those who have a criminal history, are subject to pretrial sentencing or a public defender, and those against whom there is stronger evidence are all more likely to take plea agreements. Additionally, when non-white defendants accept pleas, there tends to be a lower trial discount. An initial conclusion is that disposition of plea agreements depends heavily on the discretion of individual prosecutors.[4]

The most oft-cited model for describing how the plea bargaining process occurs is the shadow of trial model, holding that defendants and prosecutors craft, negotiate, and agree to plea agreements that are, put simply, a discount for the defendant off the likely trial outcome. This model is best described by Stephanos Bibas, who accounts for significant behavioral factors in addition to legal ones. Specifically, Bibas models plea bargains in the shadow of trial while accounting for two categories of extralegal factors: impediments to arriving at plea bargains, as well as biases that could cause divergence from a typical view of every player as a perfectly rational actor.[5]

[2] 2015 USSC Guidelines Manual
[3] Devers 2011
[4] Devers 2011
[5] Bibas 2004

As noted above, the basic shadow of trial model holds that plea bargains are a reflection of the likely trial outcome. That accounts for both the likely sentence if the defendant is convicted, and the likeliness that the defendant will be found guilty at all. That is then discounted some amount by the prosecutor, with a reduced charge or reduced sentence, which is perceived by the defendant to have a greater utility than gambling on a trial. Prosecutors have a goal of maximizing total punishment among defendants they are charging; defendants have a goal of minimizing their own punishment.[6]

Despite their goals, prosecutors are not entirely free to pursue maximized punishment without restraint. A number of constraints are exerted upon prosecutors that limit the ability to maximize punishment. Structural impediments, Bibas' first category of extralegal influences on plea bargains, can take many forms and vary from prosecutor to prosecutor in severity. The ones focused on are: funding available to prosecutors, press coverage of different cases, the relative experience level of prosecutors, and demographic factors of the defendant, including ability to hire private counsel. It is noted that plea bargains, unlike trials, are essentially hidden from public view, and from any advocacy groups, so addressing these impediments is difficult, and plea bargaining in general tends to be resistant to reformation.[7]

As noted above, the defendant's ability to hire private counsel, or acceptance of a public defender, is a complicating element of the plea bargaining process. Public defenders tend to be hugely underfunded and low on time, and could be incentivized apart from the best interests of the defendant to accept a plea to get the case done with. Conversely, private counsel could be

[6] Bibas 2004
[7] Bibas 2004

motivated to bring all cases to trial to extract more legal fees from the defendant, even those cases better settled by plea.[8]

In the category of structural impediments, Bibas includes institutional factors. Two stand out: the first being the incredible complexity of the criminal code. Because criminal law is so complicated, those with experience have a huge advantage. This will be operationalized in other models by considering repeat versus first time players in the criminal system, with experienced prosecutors being repeat players, and most defendants first-timers. Additionally, because the concern here is with mandatory minimum sentencing laws, knowledge of the intricacies of the criminal code becomes especially important, as well as knowledge of common practices among prosecutors. It is noted across the literature on both plea bargains and mandatory minimums that often, when multiple defendants are arrested, the first to confess happens to get a lenient plea while the rest get much harsher sentences. This creates a time pressure which could escape a less skilled attorney, advantaging those defendants with better counsel. Bibas notes that the shadow of trial model is further complicated by sentencing rules, especially statutory minimums and maximums. The traditional shadow of trial model assumes a gradation of expected trial outcome, based on strength of evidence and likely sentence at trial variables that are also gradients. In reality, however, sentencing laws are "lumpy"--a series of steps, not a smooth slope.[9] It becomes apparent, then, that mandatory minimums and maximums exacerbate those sharp steps, creating steep differences between potentially similar crimes, if some are subject to mandatory sentencing laws. The final structural impediment is pretrial detention, which makes pleas more appealing to defendants who want to avoid waiting in jail for a trial date.[10]

[8] Bibas 2004
[9] Bibas 2004
[10] Bibas 2004

We have, then, a more complete model of plea bargaining, occurring in the shadow of the trial, but with institutional and structural constraints, proposed by Bibas, bringing our model closer to reality. The other part of reality that is considered is human behavior; in the shadow of trial model--indeed, in almost every model--people are assumed to be perfectly rational actors pursuing their goals. Social science research tells us that, simply, people are not perfectly rational actors. This is the final piece of an edited shadow of trial model. Prospect theory, as famously described by Daniel Khaneman and Amos Tversky, paints a picture of decision making such that people gain diminishing marginal returns from losses and gains, and behavior that is risk seeking in the domain of loss and risk averse in the domain of gains.[11] Prospect theory has been empirically proven, and it is immediately clear how it is applicable to plea bargains; if the trial discount is a gain, and a long jail sentence possible at trial is a loss, defendants in real life may be significantly more likely than a perfectly rational actor to accept a plea deal. Other heuristics and biases--anchoring and adjustment, overconfidence, framing effects, and discounting on future costs to name a few--are also proposed by Bibas to be significant to the plea bargain process. Significantly, there is little that can be done to cure people of these decision making biases and fallacies, other than explicitly explaining them to people and teaching them how to compensate.[12]

At the outset, one significant piece of opposition to Bibas' modified shadow of trial model should be considered. Shawn Bushway and Allison Redlich oppose the idea that plea bargains are largely influenced by perceived trial outcomes, where trial outcomes are strongly influenced by the amount and quality of evidence against a defendant, a factor which is known at the plea bargain decision making stage. Bushway and Redlich demonstrate that, in fact, there is not a

[11] Khaneman and Tversky, 1976
[12] Khaneman and Tversky, 1976

strong relationship between evidentiary support for guilt and trial outcome, so there is no reason plea bargains would be influenced by evidence, or expected probability of a guilty verdict. In comparing legal models of plea bargaining to criminology models of pleas, they find that the criminology models have a much greater focus on institutional and psychological factors, and place less importance on legal factors such as strength of evidence. For individual cases, predictive power of models without those legal factors is just as strong as those considering evidentiary support.[13] The shadow of trial model, however, still seems probable; if defendants and prosecutors *believe* that there is a relationship between evidence and trial outcome, or if they are relying on trial outcome to make decisions but predicting it based on something other than evidence, the shadow of trial model holds.

A complete model of plea bargaining depicts negotiations taking place in the shadow of trial, with plea bargains and their relative likelihood of acceptance by defendants as being a product of expected trial outcome, as well as institutional, structural, and behavioral modifiers. The shadow of trial model is then justified empirically by numerous econometric and game theory models and research.

Econometric Models/Justification

There is a significant amount of literature justifying the modified shadow of trial model with econometric or statistical empirical evidence. It begins with William Landes and Gary Becker's economic analysis of plea bargaining. They develop a model such that the decision to go to trial rests on the likely trial outcome, the resources of the prosecutor and defendant, relative transaction costs of a trial or bargain, and risk attitudes of the defendant. Additionally, they account for institutional factors: whether the defendant makes bail or is detained pre-trial, the delay until trial, judicial expenditure, and demographics. Prosecutors are assumed to be

[13] Bushway and Redlich, 2011

maximizing total sentencing with limited budgets, and defendants are minimizing the sentence. Because the transaction costs of a trial are always much higher than for a plea, when defendants are risk averse and risk neutral, and when the defendant and prosecutor agree on the likely trial outcome, a plea should always be reached. Further, when the defendant thinks the probability of conviction is higher than the prosecutor believes it to be, a plea will always be reached. This is valid on its face, because such a majority of cases are in fact disposed of by plea agreement.[14]

It should be noted that this model, which serves as a foundation for much econometric analysis of plea bargaining, accounts for actual guilt or innocence of the defendant in two ways; by assuming that evidence is weaker against innocent defendants, and likelihood of conviction therefore lower, and by allowing a psychic cost to be imposed on innocent defendants accepting guilty pleas, thus raising the transaction cost of a plea relative to a trial. Ability to make bail is also accounted for by including amount of time spend in pretrial detention as a variable.[15]

In addition to a formal model, Landes and Becker justify the model with a multiple regression on existing case data. Their regression supported their model, with the additional finding that demographics, such as race and age, were not significant in determining whether a plea was accepted, and that defendants with more resources were more likely to demand a trial.[16]

Building on the Becker/Landes model is David Weimar, who uses individual case data to test, and in fact, validate, Landes and Becker's model, with added institutional constraints. Weimar finds, essentially, that plea bargaining does indeed occur in the shadow of trial; the length of the sentence offered at plea was found to be dependent on the expected sentence at trial. Furthermore, likeliness the defendant accepted the plea was a function of the size of the discount relative to the expected trial outcome. Additionally, the strength of the prosecutor's

[14] Landes and Becker, 1974
[15] Landes and Becker, 1974
[16] Landes and Becker, 1974

case, an indicator for probability of conviction, was also significant. There was a slight departure from the Landes model; the model allowed for different weights on the importance of a trial or a sentence for different cases within a single office of multiple prosecutors, allowing for prosecutors to exercise more latitude to offer pleas for some cases more than others.[17]

Game Theory Perspectives

Additional descriptions of the plea bargaining process must also be considered along with the constrained shadow of trial model. Outside of economic models, game theory offers a fresh perspective on plea bargain negotiations, presenting new insights. One such perspective is presented by Gene Grossman and Michael Katz, who frame plea bargains as insurance and screening devices for prosecutors.

They begin with the assumptions of risk averse defendants, a risk averse society, and a certain level of ability for trials to sort actually innocent from guilty defendants. They argue that if all defendants are guilty, there exist plea bargains for every case with a higher societal utility than spending resources on a trial and risking acquittal. Opposite that, there should be for every guilty defendant an acceptable plea agreement that is preferable to risking a harsher sentence at trial. From that, then, they find a range of plea bargains that only the guilty would accept, while innocent defendants opt for a trial, relying on the jury having some ability to sort for actual innocence. In this way, prosecutors can then use plea bargains as screening devices to find innocent defendants--those that turn down pleas--by offering sorting pleas that only the guilty would accept. Notably, they acknowledge that every risk averse defendant in this model, regardless of innocence, would accept a plea with a big enough trial discount.[18] If this model is true, it has an immediate implication; that police are remarkably successful in arresting only

[17] Weimar 1978
[18] Grossman and Katz 1983

guilty people--90 to 95 percent! This may be true; however, if it is not, it would mean that, likely, defendants are even more risk averse than expected, or that defendants do not have faith in a trial's ability to reveal innocence.

Another challenge to the Grossman/Katz model comes from the issue of credibility. Theoretically, if a defendant refuses a plea deal, they signal innocence, so an ethical prosecutor could not credibly go to trial. Yet, if a defendant knows this, guilty defendants may reject plea deals in hope of convincing the prosecutor to drop the case. However, if there is knowledge among defendants, or within the community of defense attorneys, that the prosecutor spends some amount of resources gathering evidence, and has some information about the defendant's guilt, outside of signaling, plea deals can still act as a reliable screening device for innocent defendants.[19]

An extremely interesting model in the realm of game theory presents plea bargains as a prisoner's dilemma problem; as a collective action problem among all the defendants being charged at any given time. Since prosecutors are constrained by limited resources, if all defendants were at the same time to refuse to accept plea bargains altogether, many cases would have to be simply dropped, because prosecutors cannot bring every defendant to trial. From this perspective, plea bargains are actually a disadvantageous feature for defendants as a whole; without them, far fewer would be likely to be charged with crimes at all. This collective action problem, where defendants are not coordinated enough to as one reject plea bargains entirely, seems likely to remain in place, there being no real way practically speaking for defendants to get organized.[20]

[19] Kim 2010
[20] Bar Gill et al 2007

Scott Baker and Claudio Mezzetti have the penultimate game theory perspective on plea bargaining, modeling a game of incomplete information with four steps: accusation of a crime, offer of a plea bargain, acceptance/rejection decision, and if rejection, the prosecutor's decision to proceed to trial or not. In this game, the defendant's guilt or innocence is private information known only to the defendant, while resources for prosecution and related evidentiary strength against the defendant are common knowledge to both parties. In this model, that creates a semi-separating equilibrium where some guilty defendants accept a plea deal and all innocent defendants reject a plea deal. This leads to the argument that increased resources for the prosecution would lead to better separation of innocent from guilty through plea bargaining, because there would be more information available, from more investigatory resources.[21]

In this model, prosecutors are getting information from two sources; the defendants' choice to accept or reject the plea, and outside investigation. Outside evidence acts as a signaling device to the prosecutor, indicating guilt or innocence, such that the strength of the signal is correlated with resources spend on investigating. As in some other models, the Baker and Mezzetti assume that an innocent defendant is less likely than a guilty one to be convicted at trial. The semi-separating equilibrium comes from utility equations predicting that the guilty may derive greater utility from taking a plea, while innocent do not, based on personal preference and likely trial outcome.[22] The most significant issue here is that, as noted previously, it seems clear that innocent defendants are accepting plea bargains, so this model does not match reality as well as others. Assuming that innocent defendants will want to prove their innocence and reject pleas may be inaccurate, as risk averse innocent defendants may well be, and are demonstrated to be by Landes and others, willing to take a plea to get a trial discount.

[21] Baker and Mezzetti 2002
[22] Baker and Mezzetti 2002

An opposite model to Baker and Mezzetti's is presented by Jennifer Reinganum. Instead of the defendant revealing information about his guilty by choosing to accept or reject the plea, she posits that the prosecutor reveals private information about the strength of his case during plea bargain negotiations, such that weaker cases would result in a greater discount on expected trial outcome. Reinganum holds that prosecutors will dismiss cases below a certain threshold of evidence, depending on how concerned society is with punishing the guilty vs. ensuring the innocent go free. Further, that there is some disutility from punishing the innocent and a cost to go to trial. Therefore, the defendant can infer that the prosecutor has a utility function mandating that the sentence offered in the plea deal reflects the strength of the case. One implication noted here is that when a case is not dismissed, the weaker the case, the more likely it is to be resolved by plea bargain. This is because a weak case will induce a prosecutor to offer a more favorable plea bargain, although you might think that that would signal a weak case to the defendant, who would then demand a trial.[23]

Game theory models, largely focusing on the screening potential of plea bargains and the value of private information for parties involved in the negotiation, add to understanding gained from economic models. However, it should be noted that unlike the modified shadow of trial model, game theory models are not supported by existing data, only by modeling. Regardless, there remain several issues related to plea bargaining of note.

Other Perspectives on Pleas

Though they may be less academically rigorous, interesting information can be gained from interviews. Albert Alschuler surveyed dozens of prosecutors and defense attorneys for insight into the system of plea bargaining. He discovered four basic roles that prosecutors take on: the administrator, trying to move cases through the system quickly; the judge, trying to be a fair

[23] Reinganum 1988

arbiter of justice; the legislator, routinely trying to lessen sentences from laws viewed as too harsh; and the advocate, trying to generate as many harsh sentences as possible. From the statements of prosecutors, the reality is that most lie somewhere between administrator and judge--important factors in deciding plea are how busy the prosecutor happens to be and how long a trial would take, supporting the administrator role. Additionally, prosecutors admit to being extremely motivated not to lose and willing to take a plea over trying a weak case.[24] Alschuler's interviews confirm what is posited by the models; that prosecutors are indeed trying to maximize sentencing while treating defendants fairly and justly.

Moral considerations are also at issue. It has been established by the Supreme Court that there can be a valid ineffective assistance of counsel claim made if a defense attorney did a poor job negotiating a plea deal. Bibas goes a step further, proposing that plea bargains should be regulated like the consumer market. Consumers have protections from implied warranties, to the Uniform Commercial Code, to other industry specific protection laws. Given that defendants could be said to be in a market for plea bargain, Bibas holds that the plea market should be very regulated, with reforms such as: less complex plea bargains, with all numbers that are relevant (sentencing, parole eligibility, ect) clearly displayed and plain English translations of legalese provided; automatic construction of vague or poorly phrased terms in plea bargain against drafting party, as with other contracts; and increased mandatory disclosure from prosecutors of what defendants would face at trial.[25] This idea presents an interesting way of viewing plea bargaining, within a marketplace.

Also taking the view of plea bargains in a market is Richard Adelstein, who views crime as taking place within a transactional market. He begins with the idea that the law doesn't seek to

[24] Alschuler 1968
[25] Bibas 2011

unconditionally deter crime; rather to put a cost on committing it; all crime has social and moral costs outside of the harm done just to the victim. The difficulty, then lies in finding the correct punishment that makes crime inefficient for criminals, or at least extracts punishment equal to the harm caused. Clearly, Adelstein argues, society is interested in proportionality, and making the punishment fit the crime. The individuality of prosecution and proportionality of sanctions allow for internalization of crime costs, but is high in transaction costs. Further, if the magnitude of transaction costs to society determines whether or not someone is prosecuted, plea bargains represent the lowest transaction cost option for prosecutors to force criminals to internalize costs, and thus benefit larger society.[26] This model offers a wider view of plea bargaining, within the context of a society interested in punishing the guilty, but working with limited resources.

A final view of plea bargaining is as a contract between prosecutor and defendant. Robert Scott and William Stuntz take this perspective, and discuss norms and rights of plea bargaining viewed as a contract. Foundationally, if people have the right to plead guilty and seek a reduced sentence, and prosecutors have the right to seek the harshest sentence, then we have to accept plea bargains as a legitimate form of contracting. However, Scott and Stuntz raise two types of contractual objections to plea bargains: against the bargaining process, and against outcomes. They argue that bargaining process is extremely unfair, depending on intelligence and resources of defendant, and for some, plea bargaining could rise to the level of coercion, especially if defense counsel is inadequate. The objection to the outcome of plea bargains is more basic; we don't generally allow people to contract away their freedom; however for a plea bargain system to exist at all, this must occur.[27]

[26] Adelstein 1978
[27] Scott and Stunz 1992

In conclusion, plea bargains at the most basic level are a function of expected trial outcome and likelihood of conviction, modified by numerous institutional and behavioral factors including: pretrial detention, quality of counsel, importance of the case and risk aversion. This model is justified by economic modeling and case data. Further insights can be gained from more unusual perspectives of plea bargaining as contracts, a collective action problem, or a game with two players. Having discussed plea bargains, we turn to mandatory minimum sentencing laws.

An Overview of Current Literature on Mandatory Minimums

Mandatory minimum laws set, as the name suggests, a statutory minimum sentence for defendants convicted of certain types of crime. Enacted by both states and the federal government, they generally are used in three areas: drug crimes, gun crimes and three strikes laws. There is extensive research examining the effectiveness and actual impact of these laws.

Michael Tonry summarizes current positions on mandatory minimums and past findings. The main rationales for mandatory minimum sentencing laws as they currently exist are deterrence again crimes and evenhanded sentencing. Statistically, mandatory minimums have been found to have no deterrent effect, compared to similar crimes not subject to them, and when comparing crimes committed pre- and post-minimums. Further, sentencing has been found to be less even across defendants where mandatory minimums are applicable; this is attributed to prosecutors, judges, and juries exercising their discretion to circumvent mandatory minimums however they can. As a result of this, sentencing actually becomes less transparent where mandatory minimums are involved, because so much is happening as a result of discretion and not formal proceedings. Tonry offers extensive quotes from judges documenting their distaste for

mandatory minimums, essentially arguing that they do not work and are disliked in the legal community.[28]

There are further issues raised with mandatory minimums. These sentencing laws can turn an arrest into a "race to prosecutor's office," where the first person to plea and testify against others in an arrest of multiple people gets a lenient plea, while others are harshly sentenced.[29]

Arguably, mandatory minimums are applied arbitrarily entirely--something such as a drug cutoff could mean huge sentencing differences for two defendants who committed very similar crimes. Additionally, mandatory sentencing laws remove individual tailoring from sentencing and diminish the power of judges, as well as raising federalism and separation of powers issues, in that the legislature is entering the domain of the judiciary.[30]

A final element of mandatory minimums that must be noted is prosecutorial discretion. Evidence suggests that prosecutors are, in many cases, circumventing mandatory minimums by choosing not to charge defendants with crimes they are attached to. David Bjerk found that prosecutors were much more likely to lower the charge to misdemeanor when three laws strikes were applicable, and that the effect of mandatory minimums may be overstated by as much as 30 percent. Of the data Bjerk examined, for 45 percent of drug defendants where gun enhancement charges were available, those charges were not sought; similarly, for defendants where increases due to felony convictions were possible, they were not sought 63 percent of the time. Further, prosecutors are more likely to pursue a lower charge than what is available when three strikes laws could be applicable, compared to when minimum sentencing is not a factor. In surveys, the main reasons for not pursuing the maximum sentences were; that the offense was not serious to warrant it, that the defendant has had recent good behavior, or that the previous strikes were too

[28] Tonry 2009
[29] Cassell 2011
[30] Cassell 2011

long ago to fairly be considered.[31] This provides support for the idea that mandatory minimums may actually make sentencing less even if prosecutors and other participants in the judicial system are attempting to get around them.

Intended Purpose and Efficacy of Mandatory Minimums

In order to effectively analyze the effect of mandatory minimums on plea bargaining, it is important to know what factors should be controlled for alongside mandatory minimums as independent variables. While these are largely the most common demographic factors, and variables are limited by what is available in the data set, understanding the motivations for mandatory minimums is an important step in understanding their effect on the justice system as a whole, and in formulating as accurate a model as possible.

As noted, the primary drives for the institution of mandatory minimum sentencing laws are deterrence and equality in sentencing, as well as to reduce undue leniency.[32] A report in the more immediate aftermath of the institution of federal mandatory minimums from the Federal Justice Center examines the effect the new laws had on several dimensions; primarily cost, deterrent effect, and uniformity of application, as well as racial disparity in application, and effect on sentencing reform and sentencing guidelines. The other significant contribution of the report is an examination of who, exactly, was subject to the mandatory minimums between 1978 and 1994.[33]

The first conclusion of significance is that even those offenders not directly subject to mandatory minimums are affected by them, because the federal sentencing guidelines, which apply to everyone, were adjusted to incorporate federal statutory minimums. In Fiscal Year 1992 (FY92), one half of drug offenders sentenced under mandatory minimums got the lowest

[31] Bjerk 2005
[32] United States Sentencing Commission 1991
[33] Vincent, Barbara S. and Paul J. Hofer 1994

possible rating on a scale measuring criminality (indicating the offender is not a danger to society), incorporating factors including use of a deadly weapon, and whether the offender had an aggravating role in the crime. This scale used by the researchers differs from the Department of Justice's method of distinguishing low-level offenders; the DoJ looks for a criminal history of violence, evidence of criminal sophistication, and prior prison time. Wryly, the report notes that any drug dealer who got caught on a street corner is likely lacking criminal sophistication, as demonstrated by his arrest.[34]

Of 45,000 drug offenders in custody in FY92, 16,000 could be considered low level by the Department of Justice methodology. The majority of those 16,000 had never been arrested before, and were serving an average of 81.5 months.[35] This clearly calls into question the efficacy of drug quantity, the significant factor in determining the use of mandatory minimums, for separating low-level from high-level offenders.

In FY92, one quarter of all federal defendants were directly sentenced under a statutory minimum. 88 percent of those were drug crimes; 85 percent had no aggravating role in the crime; 61 percent scored a 0 or 1 (the lowest possible scores) on the researchers scale of criminality; 71 percent had no weapon in the commitment of the crime; and 81 percent were indigent.[36] This paints a picture of mandatory minimums, not forcing the worst criminals to serve harder time, but of uniformly catching even low-level offenders in a wide net of lengthy sentences.

One of the main areas of concern in the application of mandatory minimums is their cost to the government, and society, to enforce. The report found that between 1985 and FY92, 70 percent of prison growth was directly a result of increased sentence length for drug crimes.

[34] Vincent, Barbara S. and Paul J. Hofer 1994
[35] Vincent, Barbara S. and Paul J. Hofer 1994
[36] Vincent, Barbara S. and Paul J. Hofer 1994

The authors estimate that if a funnel were added for first time offenders, such that they were no longer subject to statutory minimums but to federal sentencing guidelines, likely savings of $3.5 million per year would result in housing and prison costs. Further, if all mandatory minimums were repealed, and the sentencing guidelines reinstated, the authors estimate savings of $91-145 million per year. This did not include costs that may have resulted if additional prison facilities needed to be built to handle the likely increase in the prison population predicted at the time; and that did indeed occur. Finally, if all guideline levels were reduced by two offense types across the board for those offenders with no criminal history, the average drug sentence would be 20 percent shorter, resulting in savings of approximately $200 million per year. Additionally, it must be noted that these calculations were performed in 1994.[37] $200 million in 1994 is equivalent to approximately $315 million in 2015.[38] While this research does not allow for comparison to other federal programs, nor for potential cost savings, both fiscally and in value to society, it clearly demonstrates that mandatory minimums are dramatically more expensive to enforce than alternatives.

The second and most significant, intended effect of mandatory minimums was deterrence, which the report examined, finding little or no demonstrable deterrent effect of mandatory minimums. The first reason was that, even in 1992, it was known that prosecutors and other members of the legal system found ways to circumvent the rules in some cases, so they were less of a threat. The second, and perhaps more weighty explanation, is that in order to have a deterrent effect, individuals committing drug crimes would have to, acting as rational agents, perform a cost benefit analysis of sorts, factoring in a potential mandatory minimum sentence, and make the decision not to commit a crime due to the potential sentence. Further, even if this

[37] Vincent, Barbara S. and Paul J. Hofer 1994
[38] CNN Money Inflation Calculator

did occur, there are so many people willing to enter drug trafficking as entry level employees, so to speak, that anyone deciding to drop out is easily replaced.[39]

Deterrence also was not found to occur as a result of who was being sentenced. As noted in the breakdown of offenders, most were low level, many were first time offenders. The report argues that those are not the criminals whose arrest is likely to disrupt drug trafficking. It is noted that, on one level, these results make sense; most drug crimes are prosecuted at the state, not federal, level. In contradiction to this, the report notes that, following the use of mandatory minimums in high-profile ways, there was no change in the availability of drugs to high-school students, as reported in surveys; the report considers availability of drugs to high schoolers as a reasonably metric of the health of the drug trafficking industry.[40]

There is a large body of evidence contradicting any claims of a deterrent effect of mandatory minimums, as well as reporting on the costs. This evidence is supported by the testimony of Peter Reuter and Susan Everingham before the House Subcommittee on Crime in 1999. They were reporting on research comparing the efficiency of mandatory minimums in reducing cocaine consumption for each dollar spent, compared to increasing funding for enforcement. As a side note, a rational actor dispensing funding must max out possible funding for the most *efficient* program--the one with the highest effectiveness/cost ratio--and then move on to the second most efficient, maxing it out, ect. Reuter and Everingham found that mandatory minimums were more expensive for reducing cocaine consumption that other federal programs, specifically increased investigation and law enforcement. Echoing previous research, they note

[39] Vincent, Barbara S. and Paul J. Hofer 1994
[40] Vincent, Barbara S. and Paul J. Hofer 1994

that mandatory minimums may be more useful if deployed more on higher-level criminals who make significant decisions in drug trafficking rings.[41]

The main rationale for mandatory minimums, deterrence, can be proven not to exist; there is no demonstrable deterrent effect of statutory mandatory minimum sentences on the federal level. Additionally, they are far more expensive than a number of sentencing and enforcement alternatives.

Interaction between Pleas and Mandatory Minimums

There is also specific literature addressing the relationship between mandatory minimums and the plea bargaining process. Ronald Weich argues that mandatory minimums are to the advantage of the defendant in plea bargain negotiations because they are able to objectively demand a trial discount as opposed to guessing what the sentence at trial would probably be. However, sentencing guidelines can differ wildly depending on whether defendants take a plea, as part of trial discount. This demonstrates the large gap between the federal sentencing guidelines and those imposed by mandatory minimums. Weich notes that if the federal sentencing guidelines were to incorporate mandatory minimums, the sentences for many, many crimes would have to be adjusted up to match, resulting in much harsher sentences for many defendants. Regardless, Weich argues that mandatory minimums can help defendants achieve a greater discount with a plea bargain.[42]

Finally, Chantale Lacasse and Abigail Payne examined the relationship between mandatory minimum sentencing reforms and the consistency of judges' sentencing as well as the frequency and average length of plea bargains. They looked at court data from several districts within New York City, before and after mandatory minimum laws were passed, and found that judges'

[41] Reuter, Peter and Susan Everingham, 1999

[42] Weich 1988

inconsistency actually increased after mandatory minimums, and that the average length of plea bargains did not increase where mandatory minimums were applicable. Further, they found that the effect of sentencing reforms varied significantly by district in how sentencing changed following them, as well as by defendant demographics. Specifically, variations in sentences between judges were found to have increased post reform, and sentencing variations within a given judge's tenure remained constant, which suggests that reforms failed to provide more equal treatment to defendants who committed similar crimes.[43]

Following from that, it can be concluded that if judicial assignment is the most significant factor in determining trial outcome, plea bargains in the shadow of the judge should be altered by certainty in trial outcome post reforms. Indeed, a relationship between pleas and trial sentences was found to exist only in the post reform periods, such that pleas were on average 15% of trial sentence--bargaining in shadow of the trial took place most strongly after mandatory minimum laws were imposed, on applicable cases, with the greatest discount given to defendants who have unpredictable judges. This supports the findings of Weich that mandatory minimums allowed pleas to be made with more certainty.[44]

Risk Preferences and Plea Bargains

Ultimately, one way to formulate the plea bargain decision is as a risk evaluation, between a sure thing, the plea bargain, and an uncertainty, the trial. Even in the case of mandatory minimums, where the outcome at trial is more certain, there is still a probability that is neither 0 nor 1 of conviction, creating a risk. An element of the plea bargaining process that must be considered, therefore, is the risk seeking tendencies of defendants. A number of factors influence decision making under uncertainty, and specifically when considering risks. Examining

[43] Lacasse and Payne 1999
[44] Lacasse and Payne 1999

what factors make an individual tend to be more risk seeking or risk averse can offer insight into the steps leading to the decision to reject or accept a plea bargain, and help explain what separates those defendants that take plea deals and those defendants that do not.

There are a number of characteristics that can be used to predict risk aversion, or lack thereof. However, any evaluation of risk behavior must be grounded in prospect theory, from Khaneman and Tversky[45]. As mentioned, prospect theory predicts that people are risk seeking in the domain of loss and risk averse in the domain of gains. While that does not necessarily help distinguish one person's risk behavior from another's, it does ground the problem; a plea bargain versus a trial, ultimately, is a decision in the domain of loss of freedom. Prospect theory would predict that there is, then, a tendency towards risk seeking behavior. This basis allows for an examination of risk tendencies among defendants with the knowledge that there may be some degree of risk seeking taking place to look at.

There are three significant areas that allow for the prediction of risk seeking: age, gender and lifestyle choices. Most literature concludes that there is a negative correlation between age and degree of risk seeking, such that the youngest defendants will tend to be the most risk seeking, and the oldest defendants the least so. One reason for this is that adolescents have heightened emotional volatility and lower emotional control, which increases as individuals mature. Another links risk seeking behavior to the functional maturation of the prefrontal cortex, which leads to increased risk aversion as it develops and controls volatility.[46] A study examining 735 participants from ages five to 85 confirms that risk seeking declines as age increases.

[45] Khaneman and Tversky, 1976
[46] Paulsen, David et al, 2012

Participants completed a number of gambling tasks measuring risk behavior, finding that, indeed, there is a negative correlation between age and risk seeking.[47]

Additionally, a correlation exists between risk seeking and gender, such that men tend to be more risk seeking than women in most areas. A study of Ohio State University students asked 576 undergraduates how likely they would be to participate in 101 risky behaviors, and how risky they perceived the behaviors to be. These questions measured risk seeking along five dimensions of behavior: financial, health/safety, ethics, recreational and social. Social risks was the only area in which women were more risk seeking; in the other four, men were found to be significantly more likely to say they would engage in risky behaviors.[48] Plea bargains would be said to fall into the category of health/safety, along with behaviors such as illegal drug use and dangerous driving that are potentially life threatening. Since liberty is such a fundamental aspect of life, plea bargains fit best as a health/safety risk, meaning that men should tend to be more risk seeking when considering plea bargains.

In addition to the finding supporting views on risk seeking and gender, the study had a number of other suggestions. The most prominent was that, based on the surveys, there is less of a difference between individuals in risk seeking per se, but a combination of different levels of tolerance for risk, and different views on how risky various behaviors are.[49] Significantly, those two aspects of risk behavior are functionally the same in this context. Whether someone has a higher tolerance for risk, or views a behavior as less inherently risky is expressed in the same way; as risk seeking behavior. Therefore, that distinction is not considered relevant in looking at plea bargains.

[47] Weller, J.A. et al, 2011
[48] Weber, E.U. et al 2002
[49] Weber, E.U. et al 2002

The authors also propose a framework for predicting an individual's preference for risk, such that Risk Preference=*a*(EV)+*b*(Riskiness of gamble)+*c*. Notably, riskiness is accounted for twice, to include general risk aversion, as riskiness is considered in evaluating expected value, as well as the risk of the gamble itself.[50] Again, this is less relevant to considering one specific type of gamble, a trial, than it is to comparing gambles across multiple domains. It does, however, offer a basic framework for risk, where the factors such as age, gender and lifestyle are *c*; explaining the part of risk preference not explained by the values inherent in the gamble.

Having considered age and gender, the final relevant value to risk preference is lifestyle choices, or tendency towards sensation seeking behavior. Sensation seeking is a specific type of risk taking, what the previous study would have considered to be recreational risks. Marvin Zuckerman measured six specific risky behaviors among college students: reckless driving, gambling, drinking, smoking, illegal drug use and risky sexual behavior. All six risky behaviors tended to be correlated with each other for a given individual, indicating that there are more and less sensation seeking personalities and that sensation seeking is expressed through a person's whole life, not just in one specific area of behavior.[51]

Certain personality traits also correlated with sensation seeking: impulsivity, aggression-hostility and sociability. Additionally, as noted, men were found to be more risk taking, as were young people. Illegal drug use was specifically cited as being linked to risk seeking.[52] This has great relevance to the subject of plea bargaining, as lifestyle factors can help account for risk preferences in taking a plea.

Finally, there are a number of other relevant influences on risk behavior, though they are not as applicable to a plea bargaining context. Temporal context is one. Risk taking tends to

[50] Weber, E.U. et al 2002
[51] Zuckerman, Marvin 2000
[52] Zuckerman, Marvin 2000

decrease when consecutive choices are spaced at longer temporal intervals from one another; choice fatigue occurs. Since plea bargaining is generally modeled as a one-shot choice between accepting and rejecting a plea deal, and will be modeled that way here, choice fatigue will not occur. Additionally, a number of factors separate different types of risks in how they are considered, including controllability, emotional and social domain and ambiguity of the risk.[53] Again, since only plea bargains, one specific type of risk, are being considered here, variation in types of gambles are not significant.

A final concept that must be considered with risk behavior is the coefficient of variation (CV). The traditional measure of risk value, used by Khaneman and Tversky, was expected value, which is the expected payoff given a favorable outcome multiplied by the probability that outcome occurs (p), plus the expected payoff of a non-favorable outcome multiplied by 1-p. So the expected value of a plea bargain is simply 1 multiplied by the payoff, while for a trial, expected value depends on likelihood of winning at trial. The coefficient of variation is defined as the standard deviation from the mean for a possible outcome multiplied by the payoff. It is based off of the least noticeable difference principle; just as people can detect a smaller change in brightness of a light bulb when the bulb starts out dim, a smaller change in payoff looms larger with a smaller overall payoff. Essentially, where expected value frames the reference point as the decision maker's situation going into the gamble, the CV frames a different gambles relative to one another regardless of context.[54]

Because CV allows for comparisons by the percentage of difference each option has with other gambles in the same scenario, it can be used to measure risk across different contexts with different units of measurement. This has an impact for how plea bargains are considered,

[53] Paulsen, David et al 2012
[54] Paulsen, David et al 2012

suggesting that people may be less likely to consider the payoff of going free--benefits such as not having a criminal record--and more likely to just look at the raw percentage discount a plea bargain offers off of trial. The coefficient of variation also has an impact on risk behavior itself. Within the prospect theory framework, in the domain of losses, one study found people to be more risk seeking in areas with a high CV. Ultimately, however, when computing a meta-analysis of risk literature, that same study found that in real-life scenarios with humans the coefficient of value was approximately as reliable a predictor of risk seeking as expected value.[55] The result is that in considering individual risk seeking behavior, three factors can be focused on in creating a profile of risk behavior: age, gender and sensation seeking lifestyle choices.

Research Question

Both mandatory minimums and plea bargains are undeniably significant elements of the criminal justice system. The question remains, then, whether or not there is a causal relationship between the existence of the possibility of the imposition of a mandatory minimum sentence given loss at trial and the decision by a defendant to accept a plea bargain. Under a shadow of trial model of plea bargaining, the likely answer would be, 'yes.' A mandatory minimum sentence, unlike sentencing guidelines, provides a certain (minimum) outcome given a loss at trial. This has two main effects: a discount from that mandatory minimum, if the defendant pleads to a less serious crime, can be seen more clearly by the defendant, and one element of the uncertainty inherent in a trial is eliminated. For these reasons, the transaction costs associated with plea bargains would be reduced, and a plea bargain that clearly discounts trial would be easier to strike. In other words, a likely outcome of mandatory minimums on the justice system is that they cause defendants to be more likely to accept a plea bargain when minimums are applicable.

[55] Weber, E.U. et al 2004

A formal model of plea bargaining holds that whether or not a defendant accepts a plea bargain is the result of a constant, plus numerous demographic and case factors multiplied by coefficients. In other words:

$$PB = c + ax + by + cz... + nn$$

where PB is whether the defendant takes a plea bargain and each additional variable represents a different factor. So, the research question regarding mandatory minimums is simply asking whether or not mandatory minimums are a relevant factor on the right side of the equation.

In order to prove this, data from the United States Federal Sentencing Commission was used, from the series, "Monitoring of Federal Criminal Sentences." This study was funded by the United States Department of Justice Office of Justice Programs: Bureau of Justice Statistics. The most recent year available was 2013; the data set used, "Monitoring of Federal Criminal Sentences, 2013," (ICPSR No. 34345) was accessed through the Inter-university Consortium for Political and Social Research (ICPSR). This dataset includes all cases that the United States Sentencing Commission Received between October 1, 2012 and September 30, 2013, and which were assessed as constitutional by the U.S. Sentencing Commission, as determined by comparison between each case's date, circuit, district and judge to ensure uniformity.

A number of factors were chosen for inclusion in the model as independent variables. They are: age, race, gender, highest level of education achieved, presentence detention status, district sentenced in, criminal history level, offense committed, and, of course, mandatory minimum applicability. These variables were chosen because of their relevance in previous literature on plea bargaining and mandatory minimums. Demographic factors have been demonstrated to be significant in sentencing, so as many demographic factors as were available in the data were included. A number of factors, such as income level, and type of counsel, would

undoubtedly have been valuable but were unfortunately not included in the data set. However, because of the large number of cases, and the presence of many relevant factors, a robust model can be formulated.

Age category and highest level of education were especially significant in formulation of a model because of their relationship to risk preferences. Since no variable was available for risk aversion tendencies of defendants, age, gender and education will be viewed as a rough proxy. This is in response to literature reviewed previously identifying age and gender as the most relevant demographic factors for risk tendencies. Additionally, since there are no lifestyle factors available in the data that would better correlate with risk (such as history of alcohol or drug abuse), education level will be used as a rough proxy for lifestyle choices in examining risk.

Finally, in examining plea bargaining, the variables chosen form a model that makes sense on its face. These variables all could, one imagines, have an effect upon how one decides whether or not to accept a plea.

In sum, the data set includes information from 80,035 cases, with a total of 541 variables. Notably, there is no data later than 2003 on the defense counsel for each case; this variable was discontinued by the Bureau of Justice Statistics due to lack of available data, and resulting lack of reliability of this data when used in analysis. Therefore, that data is not used in this analysis. Of course, not all 541 variables are relevant here. A much shorter list of variables encompassing all significant demographic and crime information, and all necessary information regarding plea bargaining and mandatory minimums was actually used in analysis. At the outset, the most important note is: 96.8 percent of cases were settled by guilty plea; only 3.2% were settled by either a jury or a bench trial. More detailed descriptive statistics for the data set as a whole are as follows. More detailed information, charts and figures can be found in Appendix A.

Descriptive Information: Demographics

Demographics			
Top Five Districts Nationally by Percentage of Defendants			
Texas West	9.70%		
Texas South	8.70%		
Arizona	8.60%		
California South	6.10%		
Florida South	3%		
Age (Years)	*Mean*	*Median*	*Mode*
	36.17	34	30
Age Frequency Categories	*Percent of Total Defendants in Category*		
<21	3.40%		
21-25	13.90%		
26-30	18.10%		
31-35	18.50%		
36-40	15%		
41-50	19.50%		
>50	11.50%		
Missing	0.30%		
Race	*Percent of Total Defendants in Category*		
White	21.50%		
Black	18.60%		
Hispanic	51.50%		
Other	4.10%		
Missing			
Gender	*Percent of Total Defendants in Category*		
Male	83.20%		
Female	13%		
Missing			
Highest Education Level	*Percent of Total Defendants in Category*		
Less than H.S. Graduate	41.10%		
H.S. Graduate	26.80%		
Some College	14.20%		
College Graduate	5%		
Missing	12.90%		
Number of Dependants	Mean	Median	Mode
	1.67	1	0

Descriptive Information: Criminal History and Offense Committed

Criminal History/Offense Type	
Defendant's Final Criminal History Category	
1	45.90%
2	13.40%
3	16.30%
4	8.90%
5	5.10%
6	8.30%
Missing	2.10%
Criminal History Points Awarded	
Yes	32.70%
No	64.10%
Missing	9%
Total Number of Criminal History Points Awarded	
Mean	*Median* *Mode*
4.07	3 0
Top Offense Types by Percentage of Defendants	
Immigration	31.20%
Drugs	30.70%
Firearms	10.10%
Fraud	9.80%
Traffic Violation/Other	3.10%
Presentence Detention Status	
In Custody	68.80%
Out on Bail/Bond	17.50%
Released on Own Recognizance	4.40%
Other	0.50%
Missing	8.90%
Case Disposition	
Guilty Plea	96.80%
Trial	3%

Criminal history category, as referenced above, is the way in which the government assigns a value to a defendant's past offenses. The most severe category is 6, indicating an extensive criminal history; the least severe is category 1. Categories are determined by number of criminal history points, which are assigned increasingly for past offenses based on how recently they occurred, and the length of prison sentence resulting from them.[56] Criminal history points are summed for each defendant and result in a criminal history category. They can be especially relevant for a discussion of mandatory minimums because some statutory minimums, so-called "three strikes laws" apply mandatory minimums as a direct response to a criminal history. Notably, the majority of defendants are in criminal history category 1, which indicates little or no criminal history.

Additionally, more detailed information about the length of prison sentence, or amount of fine or restitution, for applicable defendants, can be found in Appendix A. Continued descriptive information is as follows.

[56] U.S. Sentencing Commission, 2011

Descriptive Information: Mandatory Minimums

Federal Statutory Mandatory Minimums				
Status of Mandatory Minimum at Sentencing				
Substantial Assistance				4.50%
Statutory Safety Valve				4.80%
No count carries mandatory minimum				72%
Mandatory minimum imposed				13.10%
Total Statutory Minimum for All Counts				
Time in Months	*Mean*	*Median*	*Mode*	
	41.44	0	0	
Average Minimum Sentence Applicable for Drug Crimes				
Time in Months	*Mean*	*Median*	*Mode*	
	26.7	0	0	
By Frequency				
0 Months				81.30%
120 Months				9.50%
60 Months				8.10%
Applicable Total Mandatory Minimum (Months)				
	Mean	*Median*	*Mode*	
	35.15	0	0	
Adjusted Guideline Range Minimum				
Time in Months	*Mean*	*Median*	*Mode*	
	97.06	30	0	

Information on total applicable minimum sentences available was gathered from data from the following variables: DRUGMIN, FAILMIN, FIREMIN1, GUNMIN1, GUNMIN2, GUNMIN3, IDMIN, IMMIMIN, METHMIN, PORNMIN, REGSXMIN, RELMIN, REPSXMIN, and SEXMIN. These variable labels describe all of the categories for which data

was collected on a federally mandated statutory minimum applying to a given offense; they describe a range of crimes for which federal mandatory minimums apply, including drug crimes, firearm crimes, and sex crimes. For 2013 data, no variable was provided that summed the total mandatory minimum sentence in months that was applicable for each defendant; instead that data was provided broken down by the statute imposing the minimum. In order to determine a total minimum sentence for each defendant, the minimum applied under each statute in the above table was summed. That data was then used to form a categorical variable that will be used in later analysis, simply describing yes/no whether or not a mandatory minimum was applicable for each defendant. Again, more detailed descriptive information is available in Appendix A.

Qualitatively, there are several important notes to make at this point. The first is that federal defendants overwhelmingly skew young, male, non-white, and with less education than the general public; and are disproportionately from Texas, Arizona, Florida and California. The second is that the vast majority of defendants do take a plea deal; 96.8% of defendants take a guilty plea. The third is that most defendants are not subject to mandatory minimums; for those who are, it is largely because of drug and gun crimes. The most common mandatory minimum sentences that are applicable and imposed are 60 or 120 months, though of course sentences may be as high as life imprisonment; the average mandatory minimum sentence being approximately 35 months.

The final step performed with the entire 80,035 case dataset was to examine the correlation between the two variables of interest, in order to get a big picture view of the relationship between relevant variables. There is a low, but existent, correlation between the

existence of a possible mandatory minimum and a plea bargain of 0.126[57]. Having established a correlation between mandatory minimums and plea bargains throughout the whole dataset, albeit a small one, analysis turns to causation.

Methods & Results

In order to examine whether or not the existence of a possible mandatory minimum penalty given trial makes a defendant more likely to accept a plea bargain, the data set had to be narrowed to those cases without missing demographic information that should be controlled for. When all cases missing such relevant information (on: district, race, gender, presentence detention status, level of education, final sentencing outcome, and age) were eliminated, 69,175 cases remained. These 69,175 cases were used for a bivariate logistic regression, with whether a plea bargain or a trial was the case outcome (Disposition) as the dependent variable, and all other relevant information as explanatory variables. Bivariate logistic regression was used because the outcome variable Disposition is a dichotomous, non-ordinal categorical variable.

In order for a bivariate logistic regression to be appropriate, three assumptions must be met:

- The dependent variable is on a dichotomous scale
- There exists one or more independent variables which are categorical or ordinal
- Individual cases are based off of independent observations

Correlations

		SETTLED BY PLEA AGREEMENT OR TRIAL	WAS A MANDATORY MINIMUM IMPOSED
SETTLED BY PLEA AGREEMENT OR TRIAL	Pearson Correlation	1	.126**
	Sig. (2-tailed)		.000
	N	69174	69174
WAS A MANDATORY MINIMUM IMPOSED	Pearson Correlation	.126**	1
	Sig. (2-tailed)	.000	
	N	69174	69174

57 **. Correlation is significant at the 0.01 level (2-tailed).

The data set used in this case meets all of these assumptions. The dependent variable, Disposition, is dichotomous; there are a number of independent variables, which in this case are all categorical; and independent cases are quite literally based off of separate cases, which are indeed independent observations. For these reasons, bivariate logistic regression was used to demonstrate causality.

The first regression simply examined whether or not a causal relationship exists between demographics and Disposition. Explanatory variables were: age of defendant (YEARS), the race of the defendant (NEWRACE), the gender of the defendant (MONSEX), the highest level of education achieved by the defendant (NEWEDUC), the presentence detention status of the defendant (Custody), the district in which the defendant was sentenced (DISTRICT) and the final criminal history level of the defendant (TOTCHPTS). Additionally, offense type (OFFTYPE2) was also an explanatory variable. In relation to the abstract model presented previously, this model posits that plea bargaining decisions are determined as follows:

PB= c + aAGE + bRACE + cSEX + dEDUCATION + eCUSTODY + fDISTRICT + gCRIMINALHISTORY + hOFFENSE

such that plea bargaining is the result of a constant, as well as each independent variable multiplied by a coefficient. The full results are as follows:

Binary Logistic Regression for Disposition: 2013 #1

Variable	S.E.	Wald	Sig.
Age Category	0.014	211.292	0
Race	0.02	20.243	0
Gender	0.068	41.432	0
Education Level	0.013	267.727	0
Presentence Status	0.047	7.377	0.007
District	0.001	18.677	0
Criminal History	0.004	0.242	0.623
Offense Type	0.003	179.429	0
Constant	0.114	1075.77	0

Cox & Snell R Square
0.015
Nagelkerke R Square
0.056

This demonstrates a clear, if small, causal relationship between demographics, criminal history, and crime type; and whether or not a defendant takes a plea bargain or goes to trial. From the model summary, the Cox & Snell R Square and the Nagelkerke R Square are two estimates for what percent of variance in the outcome variable--Disposition--can be explained by the model. So, between 1.5 percent and 5.6 percent of variance in disposition is explained by age, race, sex, education, presentence detention status, district, criminal history, and crime committed.

Coefficients for each of these variables are found under the "Wald" column of the table. It can clearly be seen that age, offense type, and education level are the three most influential factors in determining whether a person takes a plea deal, according to this model. Also of note in the table is the "significance" column; these are p-values for each respective variable. A number lower than .05 is considered acceptable, indicating that the results were sufficiently unlikely to occur by chance. All of the variables in this model have a significance value of 0, except for criminal history level, which is statistically insignificant in this model, and presentence custody status, which has a statistically significant value of .07.

A note here: a 0 value for significance is unusual, but not unheard of. With extremely large data sets (60,035 cases certainly qualifying) a significance value of zero simply indicates that the value was so low that it was automatically rounded down to 0 by SPSS.[58] Regardless, the conclusion may be drawn that all independent variables, except for criminal history level, are statistically significant.

It must also be noted that the coefficients for each independent variable cannot be directly interpreted as a multiplier of each variable. In a binary logistic regression, the coefficients represent log-odds outputs, and would need to be transformed in order to interpret how much the dependent variable changes given a one-unit change in an independent variable. Because there is so little variance in plea bargaining as a dependent variable, analysis will be left at the understanding that mandatory minimums are a significant factor in determining plea bargaining without analyzing the log-odds outputs.

Having examined the causal relationship between the basic facts of a defendant and case, the main variable of interest, whether a mandatory minimum sentence is applicable to a crime, is examined. A similar binary logistic regression was used, with the addition of the variable coding categorically for whether or not a mandatory minimum was applicable (ManImp in the Appendix). The results are as follows:

[58] Dorey, Frederick 2010

Binary Logistic Regression for Disposition: 2013 #2

Variable	S.E.	Wald	Sig.	
Age Category	0.014	238.543	0	**Cox & Snell R Square**
Race	0.02	10.838	0.001	0.024
Gender	0.068	18.43	0	**Nagelkerke R Square**
Education Level	0.013	278.421	0	0.094
Presentence Status	0.047	2.767	0.096	
District	0.001	6.877	0.009	
Criminal History	0.004	5.453	0.02	
Offense Type	0.002	1005.77	0	
Mandatory Minimum	0.046	751.896	0	
Constant	0.12	1383.12	0	

As is apparent, the explanatory power of the model increases significantly when mandatory minimums are included as an independent variable, indicating that there is a causal relationship between the existence of a potential mandatory minimum sentence and the acceptance by the defendant of a plea bargain. This analysis was performed with the ManImp variable, which is a dichotomous categorical variable indicating, yes or no, whether a mandatory minimum sentence was applicable to a case.

The Cox & Snell R Square increased to 2.4 percent; the Nagelkerke R Square increased to 9.4 percent with the inclusion of a categorical mandatory minimum variable, indicating that between 2.4 percent and 9.4 percent of the variation in Disposition can be explained by the model including mandatory minimums. More significantly is the coefficient for ManImp, which has a significance value of 0, indicating that it is statistically significant. The coefficient of for the mandatory minimum variable is the highest of any Wald value in any model, indicating that it is a relatively important factor in determining whether a defendant will take a plea bargain.

Interestingly, with the addition of mandatory minimums to the model, presentence custody status becomes statistically insignificant, with a significance value of .096, crossing the

acceptable .05 threshold. Additionally, criminal history level (TOTCHPTS) becomes statistically significant with a value of .02, which indicates statistical significance.

A final analysis examined mandatory minimum sentences in a different way, eliminating ManImp, the dichotomous categorical variable for mandatory minimums, and substituting it with ManMinSenMon, a continuous variable indicating the applicable mandatory minimum sentence time in months. For cases where no mandatory minimum sentence was applicable, the value would be 0. The results are as follows:

Binary Logistic Regression for Disposition: 2013 #3

Variable	S.E.	Wald	Sig.	
Age Category	0.014	207.132	0	**Cox & Snell R Square**
Race	0.02	19.442	0	0.016
Gender	0.068	38.807	0	**Nagelkerke R Square**
Education Level	0.013	265.848	0	0.084
Presentence Status	0.047	8.064	0.005	
District	0.001	17.586	0	
Criminal History	0.004	0.057	0.812	
Offense Type	0.003	158.258	0	
Minimum in Months	0	173.086	0	
Constant	0.115	1094.53	0	

As can be seen, the explanatory power of the model actually decreased when the mandatory minimum sentence was measured continuously in months rather than categorically as a yes/no question. The explanatory power of the model ranges from 1.6 percent to 6.4 percent of variance in Disposition. Again, all variables except for criminal history level are statistically significant. Interestingly, the Wald coefficient for mandatory minimum sentence in months is much lower than for the categorical mandatory minimum variable.

Having demonstrated a causal relationship between the existence of a mandatory minimum sentence and plea bargaining behavior in 2013 sentencing data, cases from earlier years are examined to determine if a pattern holds. While containing an extremely high number

of cases, the 2013 data was only from one year, limiting the degree to which any results from it can be generalized. Identical bivariate logistic regression analyses to the one described above were performed on data sets for an additional three years, on federal sentencing data from 2012-2010 in order to expand the external validity of any results found here. Each year going back from 2013, from 2012-2010, had similar descriptive statistics, as well as the causal analysis. More detailed results are as follows:

Monitoring of Federal Criminal Sentences, 2012 (ICPSR 35342) Data

Complete descriptive statistics for 2012-2010 data can be found in Appendix C; data remained extremely similar year to year. For 2012-2010, analysis will focus solely on a binary logistic regression comparing mandatory minimums as a categorical yes/no variable to disposition of each case. Each year will be examined individually for the results from the binary logistic regression of interest, and then the results from all four years analyzed, 2013-2010, will be examined in the aggregate. For this regression for 2012, 73,397 cases were used. Results are as follows:

Binary Logistic Regression for Disposition: 2012

Variable	S.E.	Wald	Sig.	
Age Category	0.014	296.272	0	**Cox & Snell R Square**
Race	0.019	0.862	0.364	0.018
Gender	0.067	10.432	0.001	**Nagelkerke R Square**
Education Level	0.013	381.639	0	0.072
Presentence Status	0.054	11.743	0.001	
District	0.001	14.575	0	
Criminal History	0.004	11.439	0.001	
Offense Type	0.003	61.566	0	
Mandatory Minimum	0.047	216.861	0	
Constant	0.124	1665.14	0	

This model describes between1.8 and 7.2 percent of variance in the disposition dependent variable. All demographic factors except for race are statistically significant, as is the categorical

mandatory minimum variable. For 2012, both years and highest level of education achieved by the defendant are more influential in varying disposition than whether a statutory minimum was available for the offense the defendant was facing. However, statutory minimums were still significant. A complete output can be found in Appendix D.

Monitoring of Federal Criminal Sentences, 2011 (ICPSR 35339) Data

For 2011 data, 75,151 cases were available for analysis. Results for binary logistic regression using a categorical variable for whether a statutory minimum applied to the defendant for 2011 are as follows:

Binary Logistic Regression for Disposition: 2011

Variable	S.E.	Wald	Sig.
Age Category	0.013	325.644	0
Race	0.02	12.093	0.001
Gender	0.07	32.261	0
Education Level	0.013	296.238	0
Presentence Status	0.053	12.339	0
District	0.001	46.375	0
Criminal History	0.004	N/A	0.207
Offense Type	0.003	100.025	0
Mandatory Minimum	0.046	182.215	0
Constant	0.12	1423.19	0

Cox & Snell R Square
0.019

Nagelkerke R Square
0.075

With similarly low explanatory power, this model explains between 1.9 and 7.5 percent of variance in the disposition outcome variable. Again, whether or not a mandatory minimum was applicable is the third-most influential variable on disposition, following age category and level of education. In this model, all variables are significant except for criminal history of the defendant. A complete output can be found in Appendix E.

Monitoring of Federal Criminal Sentences, 2010 (ICPSR 35336) Data

For 2010 data, 72,461 cases were available for analysis. Results for binary logistic regression using a categorical variable for whether a statutory minimum applied to the defendant for 2010 are as follows:

Binary Logistic Regression for Disposition: 2010

Variable	S.E.	Wald	Sig.	
Age Category	0.013	312.408	0	**Cox & Snell R Square**
Race	0.015	71.039	0	0.02
Gender	0.069	13.904	0	**Nagelkerke R Square**
Education Level	0.012	325.548	0	0.074
Presentence Status	0.053	23.972	0	
District	0.001	76.767	0	
Criminal History	0.004	2.112	0.146	
Offense Type	0.003	43.893	0	
Mandatory Minimum	0.046	215.453	0	
Constant	0.112	1986.73	0	

Explanatory power of the model remained low, between 1.9 and 7.2 percent of variance in disposition. As with the 2011 data, the only statistically insignificant variable was criminal history; all others were statistically significant. And, with similar consistency, whether a mandatory minimum was available for the defendant's offense was the third-most influential variable, following age category and highest level of education achieved. A complete output can be found in Appendix F.

Summary of Results

A summary of the binary logistic regression from each year, 2013-2010, that included as an independent variable the categorical mandatory minimums variable is as follows:

Summary of 2010-2013 Binary Logistic Regressions				
	2010	**2011**	**2012**	**2013**
Age Category	312.408	325.644	296.272	238.543
Race	71.039	12.093	N/A	10.838
Gender	13.904	32.261	10.432	18.43
Education Level	325.548	296.238	381.639	278.421
Detention Status	23.872	12.339	11.743	N/A
District	76.767	46.375	14.575	6.877
Criminal History	N/A	N/A	11.439	5.453
Offense Type	43.893	100.025	61.566	1005.774
Mandatory Minimum	215.453	182.215	216.861	751.896
Explanatory Range	*2.0-7.4%*	*1.9-7.5%*	*1.8-7.2%*	*2.4-9.4%*

The number corresponding with each independent variable is the Wald coefficient for the given year in the regression including mandatory minimums as a categorical variable. Explanatory range refers to the degree of variance in the disposition dependent variable that the model is expected to explain. Entries of "N/A" refer to a variable with a p-value less than .05, below the threshold of statistical significance for the given model.

The most important take away is that, as is clear, whether or not a mandatory minimum was applicable for the defendant was a statistically significant factor in determining whether that defendant accepted a plea bargain. This furthers the current state of research on mandatory minimums and plea bargain, and helps provide directions for further study. The second is the consistently low explanatory power of the model in explaining variance in the plea bargaining dependent variable. Results will be discussed more fully in the Discussion section.

Scope

Before a further discussion of results, limitations of the study must be acknowledged. The most glaring is that the majority of criminal cases come through state courts, and this data dealt only with federal cases. So, there may be less generalizability when considering state criminal

cases. Further, this data was from four years in total, 2013-2010, which may or may not have been extremely representative of the past ten, fifteen, or fifty years. However, the descriptive statistics do match those reported in literature from a wide time frame, and the data remained very consistent over the years that were examined, so there is no compelling reason to believe that the data used for analysis was extremely unusual compared to a wider time frame in any way. Finally, the low overall explanatory power of all three models, which will be discussed further, must be highlighted; as notable as any causal conclusions may be, they are not enormously impactful when considering federal cases as a whole.

Discussion

There exists a causal relationship between whether or not a defendant may face a mandatory minimum sentence at trial and whether that defendant accepts a plea bargain. Several specific elements of analysis must be examined further before a more general discussion. First is the relationship between various demographic factors and plea bargaining. For 2013, throughout all three analyses, the demographic variables with the greatest Wald coefficients were age, highest level of education achieved, and offense type, by far. Offense type stands alone as a logical explanatory variable for whether a plea bargain was struck for several reasons. The first is that there are likely a whole slew of crimes which are either always plead to, such as minor traffic violations or other more minor crimes, or which are never plead to, such as perhaps extremely serious crimes which prosecutors may not be authorized to offer a plea bargain discount on. The second reason crime explains plea bargaining behavior well may be that there exists a bias such that the more serious a defendant's crime is, and the greater risk of loss at trial, the more likely a defendant is to accept a plea bargain. In a loss-averse, risk-averse value system, as explained by prospect theory, such a relationship would make sense.

The relationships between age and plea bargaining and education and plea bargaining may in fact be explained by risk tendencies of defendants. As discussed previously, the older a person is, the more risk-averse a person is. Similarly, the discipline and behavior needed to remain in school longer than the 41.1 percent of defendants who did not graduate from high school may well require greater impulse control, and less risky behavior, resulting in a correlation between a risk-seeking personality and lower education attainment. Together, age and education may be a stand-in for risk seeking behavior, such that older and more educated defendants are less risk-seeking, and thus more likely to accept a plea deal and avoid the risk inherent in a trial.

The low explanatory power of all three models must also be considered. The explanatory power peaked at a maximum of 9.4 percent, when a categorical independent variable accounting for mandatory minimums was included. The strongest explanation for the low explanatory power of the model is the overwhelming percentage of defendants who take plea bargains, 96.9 percent. In a sample size of 60,035 defendants, that represents 58,234 defendants. When so many defendants take plea bargains, it crosses all demographic and case facts. Put simply, with such an overwhelming majority, there is little variance for any model to explain. The large jump in explanatory power when mandatory minimums were included should be considered reasonably compelling evidence that they do make a defendant at least somewhat more likely to take a plea bargain.

These results were confirmed by analyses on three years prior to 2013, finding that the model with whether or not there was an applicable statutory minimum increased explanatory power of the model, and it was a statistically significant, and important, variable. Interestingly, the mandatory minimum variable was not as relatively influential as demographic factors in prior

years. The significance of age and education level remained similar to 2013 as well. One explanation for that, as noted, is that age and education level may be serving to describe a defendant's risk taking preferences, with older and more educated defendants being less likely to accept the risk of trial. Alternatively, another explanation may be that education and age are correlated with specific types of crime that are less likely to go to trial. For example, it would make sense if certain types of fraud were almost exclusively committed by older defendants with M.B.A.s; if that type of crime almost never went to a trial, education would resultantly be a strong predictor of disposition.

As noted, the reason mandatory minimums were predicted to make plea bargains more likely is that they increase certainty in the outcome at trial, and make it easier for a discount to be calibrated and accepted. This theory is borne out by the difference in significance between the categorical mandatory minimum variable and the continuous months mandatory minimum variable in explaining Disposition. A strong explanation for that difference is that the length of time of the mandatory minimum does not as strongly influence plea bargaining because it is not the length of time that matters, since the plea bargain would be discounted accordingly. Instead, it is the simple fact that a statutory minimum exists that is more significance, indicating that certainty is very important, and providing support for a shadow of trial model of plea bargaining.

This finding has implications for how the justice system is thought about. Mandatory minimum laws are a contentious political topic, but rarely, if ever, are they discussed in the context of plea bargaining. Plea bargaining itself, indeed, is rarely discussed at all, despite its propensity in the justice system. The question must be, then: with an understanding of the relationship between the two do mandatory minimums, and plea bargaining, increase the fairness of the justice system or erode it? In other words: should the justice system be as dependent as it

is upon plea bargaining, and reliant upon mandatory minimums? This is a significantly more difficult question to answer, one that depends not just on evidence, but on morals and values.

It is unquestionable that pushing defendants towards plea bargains was not the intended effect of mandatory minimums. Mandatory minimums were meant to punish lawbreakers, standardize sentencing, and deter crime. If one unintended side effect is increased plea bargains, that undermines the intended harsh sentences to punish and deter and certainly does nothing to standardize prison sentences because with plea bargains, the prosecutor has far more discretion than a trial outcome would allow. Increased plea deals, then, may be said to not only be an unintended consequence of mandatory minimums, but an undesired one.

The reality is that, though mandatory minimum applicability was certainly an important factor in explaining plea bargaining behavior, it explained very little of it, because a plea bargain seems to be inevitable outcome for so many defendants. One reason for this is likely the dearth of public defenders, and quality counsel for indigent defendants. Without a system allowing defendants to confidently pursue a trial, they may feel that the only option is a plea.

This finding has important implications for academic study on plea bargaining, both past and future. In terms of the existing body of literature on plea agreements, these findings rather highlight the little difference that any factors a researcher might study would make in a real-world plea bargaining scenario. The odds are, overwhelmingly, that the defendant will take a plea agreement. Practically speaking, this means that much of the literature exploring why plea bargains happen, what makes them more likely and what their effect on the justice system is, is rather a drop in the bucket: plea bargaining is how the justice system works, period.

With this knowledge, the most important research becomes that which explores how the make plea bargains as fair as possible for defendants. If it is accepted that almost every

defendant will take a plea, there must then be a focus on ensuring that the plea bargaining process is not skewed towards prosecutors, or against any potentially disadvantaged demographic group. For example, literature examining plea bargains as a marketplace, proposing potential consumer protections, becomes especially important.

Future research must also build upon current findings. A clear avenue for further research would investigate the log odds results from the research here, examining by how much, exactly, the existence of a mandatory minimum makes the acceptance of a plea more likely. Such research could also consider all of the other demographic factors, which could lead to a better understanding of how to help people who may be disproportionately swept into taking pleas on the basis of race, gender, or a similar factor. Ideally, further research should also attempt to investigate factors not available in the data used here. Specifically, socio-economic status and type of counsel are two pieces of information about a defendant that seem as if they are likely to be influential in determining how a defendant fares in the justice system.

Having examined those factors, a next step would be to more closely look at the resulting plea bargain itself. Asking what factors make plea bargains more or less favorable for defendants is important in ensuring a fair justice system. Given that so many defendants are taking pleas, and that pleas are largely unregulated compared to trials, research into what makes for an advantageous plea for a defendant is important. That research, specifically, could focus on those same demographic factors that ought not, but likely do influence a plea outcome.

An interesting avenue for future research approaches plea bargains from the perspective of a rational defendant trying to maximize outcome. Compared to trials, how do defendants fare with pleas? Controlling for the selection bias that going to trial itself presents, is a defendant going to get a better deal through a plea or a trial? More simply put, are the vast majority of

defendants who accept plea deals acting in their own best interests, or would they be better served on the whole by going to trial? Gaining a fuller and more comprehensive view of the role of plea bargaining in the justice system is an essential goal for future research.

The most striking impact in looking back at the literature is the disconnect that exists between it and reality. Most of the literature on the criminal justice system is not focused on plea bargaining. The literature that is does not, generally, look towards being able to prescriptively make suggestions for a fairer system. When the experience of the average defendant is neither reflected nor aided by the literature, a re-evaluation must occur.

Conclusion

Plea bargains play a role in the justice system that is much larger than most Americans would likely imagine. Mandatory minimums, a central feature of criminal justice reforms in the 1980's and 1990's, are on their way out; President Obama has called for reforms, and tied the issue to prison overcrowding and inequality.[59] But plea bargains are almost entirely overlooked in wider conversations about criminal justice; they are widely referred to as a "necessity" to keep courts running smoothly and to allow huge numbers of cases to be processed in a constitutionally timely way. The issue, however, is that being necessary and being just is not the same thing. While plea bargains are undeniable essential to keep cases moving through the courts, and are clearly cheaper and faster than trials, those qualities do not make them inherently better or fairer for defendants. And while plea bargains may be overlooked, they are certainly in need of a wider debate over their place in the justice system.

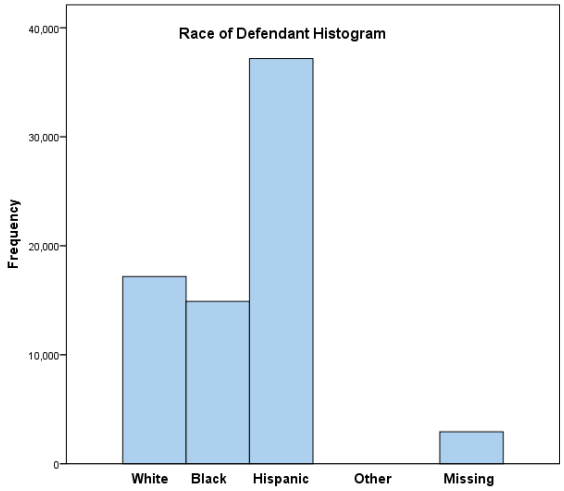
[59] Wolfgang, Ben 2015

Appendix A

Race of Defendant

RACE OF DEFENDANT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	17172	21.5	23.8	23.8
	Black	14895	18.6	20.6	44.4
	Hispanic	37173	46.4	51.5	95.9
	Other	2931	3.7	4.1	100.0
	Total	72171	90.2	100.0	
Missing	System	7864	9.8		
Total		80035	100.0		



Defendant's Gender

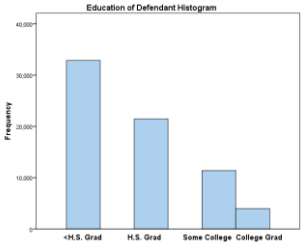
DEFENDANT'S GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	66600	83.2	86.5	86.5
	Female	10381	13.0	13.5	100.0
	Total	76981	96.2	100.0	
Missing	System	3054	3.8		
Total		80035	100.0		

Highest Level of Education Attained by Defendant

EDUCATION OF DEFENDANT

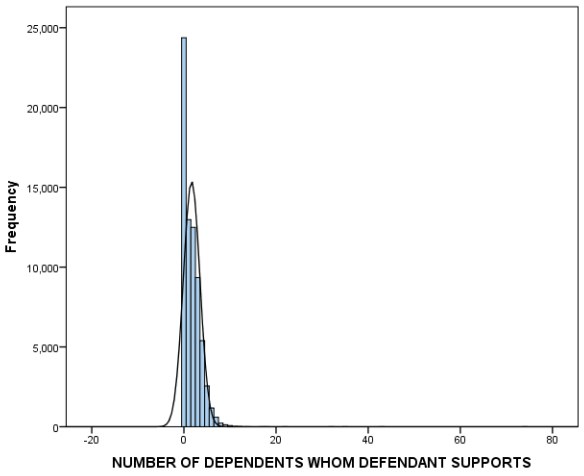
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than H.S. graduate	32857	41.1	47.2	47.2
	H.S. graduate	21453	26.8	30.8	77.9
	Some college	11378	14.2	16.3	94.3
	College graduate	3985	5.0	5.7	100.0
	Total	69673	87.1	100.0	
Missing	System	10362	12.9		
Total		80035	100.0		



Number of Dependents Whom Defendant Supports

NUMBER OF DEPENDENTS WHOM D

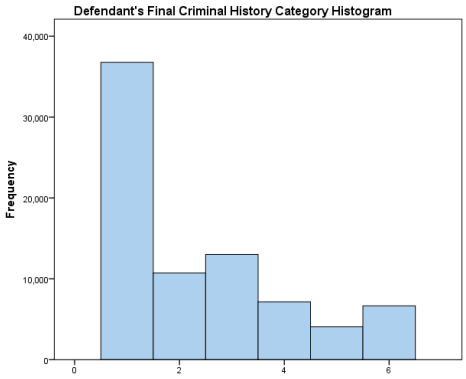
N	Valid	69388
	Missing	10647
Mean		1.67
Median		1.00
Mode		0
Std. Deviation		1.799
Range		74
Minimum		0
Maximum		74
Percentiles	25	.00
	50	1.00
	75	3.00



Defendant's Final Criminal History Category

DEFENDANTS FINAL CRIMINAL HISTORY CATEGORY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	36758	45.9	46.9	46.9
	2	10713	13.4	13.7	60.6
	3	13027	16.3	16.6	77.2
	4	7161	8.9	9.1	86.3
	5	4069	5.1	5.2	91.5
	6	6660	8.3	8.5	100.0
	Total	78388	97.9	100.0	
Missing	System	1647	2.1		
Total		80035	100.0		



Criminal History Points Awarded

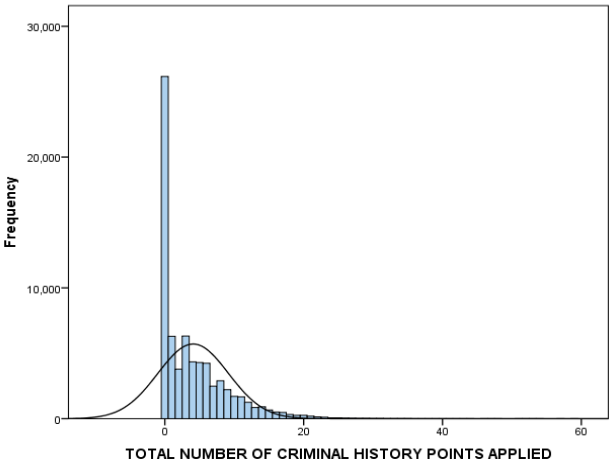
CRIMINAL HISTORY POINTS AWARDED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No criminal history points	26157	32.7	35.9	35.9
	Yes, there are criminal history points	46649	58.3	64.1	100.0
	Total	72806	91.0	100.0	
Missing	System	7229	9.0		
Total		80035	100.0		

Total Number of Criminal History Points Awarded

TOTAL NUMBER OF CRIMINAL HISTO

N	Valid	72806
	Missing	7229
Mean		4.07
Median		3.00
Mode		0
Std. Deviation		5.083
Range		59
Minimum		0
Maximum		59
Percentiles	25	.00
	50	3.00
	75	6.00



Primary Offense Type Generated From Conviction with Highest Statutory Max

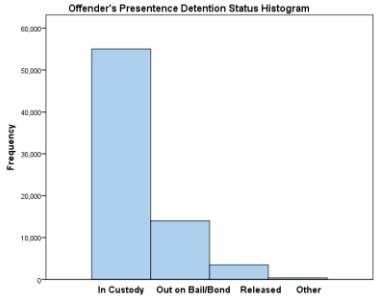
PRIMARY OFFENSE TYPE GENERATED FROM CONVICTION WITH HIGHEST STATUTORY MAX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Murder	89	.1	.1	.1
	Manslaughter	63	.1	.1	.2
	Kidnapping/Hostage Taking	40	.0	.0	.2
	Sexual Abuse	423	.5	.5	.8
	Assault	724	.9	.9	1.7
	Robbery (includes MONOFFTP= 7, other Robbery)	844	1.1	1.1	2.7
	Arson	69	.1	.1	2.8
	Drugs - Trafficking, Manufacturing, and Importing	22254	27.8	27.8	30.6
	Drugs - Communication Facilities	414	.5	.5	31.1
	Drugs: - Simple Possession	2332	2.9	2.9	34.1
	Firearms (Incld Firearms Use, Possn, and Trafficking) (includes MONOFFTP= 14, Firearms possn and Trafficking)	8068	10.1	10.1	44.1
	Burglary/Breaking and Entering	37	.0	.0	44.2
	Auto Theft	87	.1	.1	44.3
	Larceny	1372	1.7	1.7	46.0
	Fraud	7840	9.8	9.8	55.8
	Embezzlement	341	.4	.4	56.2
	Forgery/Counterfeiting	731	.9	.9	57.1
	Bribery	256	.3	.3	57.5
	Tax Offenses	616	.8	.8	58.2
	Money Laundering	829	1.0	1.0	59.3
	Racketeering /Extortion (includes MONOFFTP=8, Extortion)	871	1.1	1.1	60.3
	Gambling/Lottery	73	.1	.1	60.4
	Civil Rights Offenses	58	.1	.1	60.5
	Immigration	24972	31.2	31.2	91.7
	Child Pornography (includes OFFTYPE2=42, Child Pornography)	1922	2.4	2.4	94.1
	Prison Offenses	427	.5	.5	94.6
	Administration of Justice (Includes accessory after the fact, misprision of felony, and witness tampering)	1398	1.7	1.7	96.4
	Environmental, Game, Fish, and Wildlife Offenses	182	.2	.2	96.6
	National Defense Offenses	126	.2	.2	96.8
	Antitrust Violations	16	.0	.0	96.8
	Food and Drug Offenses	74	.1	.1	96.9
	Traf Viols Other Offns (Incld OFFTYPE2=43,44) (Incld MONOFFTP=35, 36,37,38,39,40,41)	2487	3.1	3.1	100.0
	Total	80035	100.0	100.0	

Offender's Presentence Detention Status

OFFENDER'S PRESENTENCE DETENTION STATUS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In custody	55045	68.8	75.5	75.5
	Out on bail / bond	14013	17.5	19.2	94.7
	Released on own recognizance	3482	4.4	4.8	99.5
	Other	390	.5	.5	100.0
	Total	72930	91.1	100.0	
Missing	System	7105	8.9		
Total		80035	100.0		



Settled By Plea Agreement or Trial

SETTLED BY PLEA AGREEMENT OR TRIAL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Plea	77567	96.9	96.9	96.9
	Trial	2468	3.1	3.1	100.0
	Total	80035	100.0	100.0	

Disposition of Defendant's Case

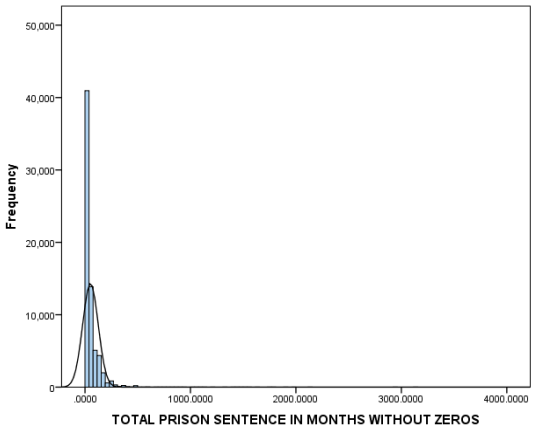
DISPOSITION OF DEFENDANTS CASE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Guilty plea	77490	96.8	96.8	96.8
	Nolo contendere	77	.1	.1	96.9
	Jury trial	2356	2.9	2.9	99.9
	Trial by judge or bench trial	56	.1	.1	99.9
	Both guilty plea and trial (>1 count)	56	.1	.1	100.0
	Total	80035	100.0	100.0	

Total Prison Sentence in Months Without Zeroes

TOTAL PRISON SENTENCE IN MONTHS

N	Valid	68721
	Missing	11314
Mean		51.621914
Median		30.000000
Mode		6.0000
Std. Deviation		73.6328546
Range		3119.9700
Minimum		.0300
Maximum		3120.0000
Percentiles	25	10.000000
	50	30.000000
	75	63.000000



Fine/Cost of Supervision or Restitution

FINE/COST OF SUPERVISION OR RESTITUTION

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No fine / cost of supervision, nor restitution	62769	78.4	78.4	78.4
	Restitution ordered, no fine / cost of supervision	10417	13.0	13.0	91.5
	Fine / cost of supervision, no restitution	5852	7.3	7.3	98.8
	Both fine / cost of supervison and restitution	989	1.2	1.2	100.0
	Total	80027	100.0	100.0	
Missing	System	8	.0		
Total		80035	100.0		

Mandatory Minimum Applicable Sentence (Months) for Drug Crime

MANDATORY MINIMUM SENTENCE (MONTHS) FOR DRUG

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	65083	81.3	81.3	81.3
	1	8	.0	.0	81.3
	3	11	.0	.0	81.3
	12	253	.3	.3	81.7
	36	1	.0	.0	81.7
	60	6509	8.1	8.1	89.8
	78	1	.0	.0	89.8
	120	7579	9.5	9.5	99.3
	121	2	.0	.0	99.3
	132	1	.0	.0	99.3
	138	1	.0	.0	99.3
	180	1	.0	.0	99.3
	240	513	.6	.6	99.9
	278	1	.0	.0	99.9
	Life	71	.1	.1	100.0
	Total	80035	100.0	100.0	

MANDATORY MINIMUM SENTENCE (M

N	Valid	80035
	Missing	0
Mean		26.70
Median		.00
Mode		0
Std. Deviation		299.928
Range		9996
Minimum		0
Maximum		9996
Percentiles	25	.00
	50	.00
	75	.00

1st: Mandatory Minimums Applied at Sentencing

Describes the status of any mandatory minimums applied to the first count against the defendant at sentencing

1ST:MANDATORY MINIMUMS AT SENTENCING

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Findings of fact in this case	228	.3	.3	.3
	Substantial assistance	3569	4.5	4.7	5.0
	Statutory safety valve	3835	4.8	5.1	10.1
	No count of conviction carries a mandatory sentence	57602	72.0	76.0	86.0
	Mandatory minimum sentence imposed	10507	13.1	13.9	99.9
	One+ counts convict carry mand but court deter dn apply	70	.1	.1	100.0
	Total	75811	94.7	100.0	
Missing	System	4224	5.3		
Total		80035	100.0		

Total Statutory Minimum Prison Time Applicable For All Counts

TOTAL STATUTORY MINIMUM PRISON TERM IN MONTHS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	57252	71.5	74.4	74.4
	1	8	.0	.0	74.4
	2	1	.0	.0	74.4
	3	13	.0	.0	74.4
	4	1	.0	.0	74.4
	6	5	.0	.0	74.4
	8	1	.0	.0	74.4
	9	2	.0	.0	74.4
	12	241	.3	.3	74.7
	15	1	.0	.0	74.7
	20	1	.0	.0	74.7
	24	905	1.1	1.2	75.9
	27	1	.0	.0	75.9
	30	2	.0	.0	75.9
	35	1	.0	.0	75.9
	36	67	.1	.1	76.0
	38	1	.0	.0	76.0
	48	9	.0	.0	76.0
	54	1	.0	.0	76.0
	60	8008	10.0	10.4	86.4
	61	1	.0	.0	86.4
	63	1	.0	.0	86.4
	66	1	.0	.0	86.4
	72	23	.0	.0	86.4
	78	1	.0	.0	86.4
	84	448	.6	.6	87.0
	85	1	.0	.0	87.0
	96	1	.0	.0	87.0
	120	7882	9.8	10.2	97.3
	121	3	.0	.0	97.3
	123	1	.0	.0	97.3
	126	1	.0	.0	97.3
	132	1	.0	.0	97.3
	144	12	.0	.0	97.3
	156	1	.0	.0	97.3
	180	1153	1.4	1.5	98.8
	198	1	.0	.0	98.8
	204	10	.0	.0	98.8
	240	519	.6	.7	99.5
	264	11	.0	.0	99.5
	278	1	.0	.0	99.5
	300	73	.1	.1	99.6
	324	6	.0	.0	99.6
	360	31	.0	.0	99.6
	384	57	.1	.1	99.7
	420	28	.0	.0	99.7
	480	11	.0	.0	99.8
	504	8	.0	.0	99.8
	540	5	.0	.0	99.8
	564	1	.0	.0	99.8
	600	5	.0	.0	99.8
	624	1	.0	.0	99.8
	660	6	.0	.0	99.8
	684	9	.0	.0	99.8
	720	1	.0	.0	99.8
	780	1	.0	.0	99.8
	864	2	.0	.0	99.8
	900	1	.0	.0	99.8
	984	6	.0	.0	99.8
	1080	1	.0	.0	99.8
	1200	1	.0	.0	99.8
	1284	2	.0	.0	99.8
	1320	1	.0	.0	99.8
	1380	1	.0	.0	99.8
	1464	1	.0	.0	99.8
	1500	1	.0	.0	99.8
	1560	1	.0	.0	99.8
	1584	1	.0	.0	99.8
	1800	1	.0	.0	99.8
	1884	1	.0	.0	99.8
	2184	1	.0	.0	99.8
	2484	1	.0	.0	99.8
	Life	123	.2	.2	100.0
	Total	76983	96.2	100.0	
Missing	System	3052	3.8		
Total		80035	100.0		

TOTAL STATUTORY MINIMUM PRISON

N	Valid	76983
	Missing	3052
Mean		41.44
Median		.00
Mode		0
Std. Deviation		402.296
Range		9996
Minimum		0
Maximum		9996
Percentiles	25	.00
	50	.00
	75	24.00

Applicable Mandatory Minimum Sentence in Months for Charged Crime

ManMinSenMonths

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	60400	75.5	75.5	75.5
	1.00	8	.0	.0	75.5
	2.00	1	.0	.0	75.5
	3.00	13	.0	.0	75.5
	4.00	1	.0	.0	75.5
	6.00	4	.0	.0	75.5
	8.00	1	.0	.0	75.5
	9.00	2	.0	.0	75.5
	12.00	238	.3	.3	75.8
	15.00	1	.0	.0	75.8
	24.00	906	1.1	1.1	76.9
	25.00	1	.0	.0	76.9
	27.00	1	.0	.0	76.9
	28.00	1	.0	.0	76.9
	30.00	1	.0	.0	76.9
	35.00	1	.0	.0	76.9
	36.00	66	.1	.1	77.0
	38.00	1	.0	.0	77.0
	48.00	9	.0	.0	77.0
	54.00	1	.0	.0	77.0
	60.00	7960	9.9	9.9	87.0
	61.00	1	.0	.0	87.0
	63.00	1	.0	.0	87.0
	66.00	1	.0	.0	87.0
	72.00	24	.0	.0	87.0
	84.00	447	.6	.6	87.6
	85.00	1	.0	.0	87.6
	96.00	2	.0	.0	87.6
	120.00	7878	9.8	9.8	97.4
	121.00	1	.0	.0	97.4
	122.00	2	.0	.0	97.4
	123.00	1	.0	.0	97.4
	126.00	1	.0	.0	97.4
	144.00	13	.0	.0	97.4
	156.00	1	.0	.0	97.4
	180.00	1125	1.4	1.4	98.9
	183.00	1	.0	.0	98.9
	204.00	10	.0	.0	98.9
	216.00	1	.0	.0	98.9
	240.00	515	.6	.6	99.5
	264.00	11	.0	.0	99.5
	300.00	88	.1	.1	99.6
	316.00	1	.0	.0	99.6
	324.00	5	.0	.0	99.6
	360.00	44	.1	.1	99.7
	384.00	55	.1	.1	99.8
	420.00	27	.0	.0	99.8
	480.00	13	.0	.0	99.8
	504.00	8	.0	.0	99.8
	540.00	8	.0	.0	99.8
	564.00	1	.0	.0	99.8
	600.00	6	.0	.0	99.8
	624.00	1	.0	.0	99.8
	660.00	5	.0	.0	99.9
	684.00	9	.0	.0	99.9
	720.00	1	.0	.0	99.9
	780.00	1	.0	.0	99.9
	864.00	2	.0	.0	99.9
	900.00	1	.0	.0	99.9
	984.00	6	.0	.0	99.9
	1080.00	1	.0	.0	99.9
	1200.00	1	.0	.0	99.9
	1284.00	2	.0	.0	99.9
	1320.00	1	.0	.0	99.9
	1380.00	1	.0	.0	99.9
	1464.00	1	.0	.0	99.9
	1500.00	1	.0	.0	99.9
	1560.00	1	.0	.0	99.9
	1584.00	1	.0	.0	99.9
	1800.00	1	.0	.0	99.9
	1884.00	1	.0	.0	99.9
	2184.00	1	.0	.0	99.9
	2484.00	1	.0	.0	99.9
	9996.00	71	.1	.1	100.0
	10056.00	7	.0	.0	100.0
	10116.00	3	.0	.0	100.0
	10176.00	3	.0	.0	100.0
	10296.00	1	.0	.0	100.0
	Total	80035	100.0	100.0	

Statistics

ManMinSenMonths

N	Valid	80035
	Missing	0
Mean		35.1514
Median		.0000
Std. Deviation		330.27767
Range		10296.00
Minimum		.00
Maximum		10296.00

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
ManMinSenMonths	80035	10296.00	.00	10296.00	35.1514	330.27767
Valid N (listwise)	80035					

Appendix B: Complete Output for 2013 Bivariate Logistic Regressions

Demographics vs. Plea Bargaining

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	69124	99.9
	Missing Cases	50	.1
	Total	69174	100.0
Unselected Cases		0	.0
Total		69174	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

			Predicted		
			SETTLED BY PLEA OR TRIAL		Percentage Correct
	Observed		.00	1.00	
Step 0	SETTLED BY PLEA OR TRIAL	.00	0	2359	.0
		1.00	0	66765	100.0
	Overall Percentage				96.6

a. Constant is included in the model.

b. The cut value is .500

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1011.276	8	.000
	Block	1011.276	8	.000
	Model	1011.276	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	19561.106[a]	.015	.056

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	34.957	8	.000

Contingency Table for Hosmer and Lemeshow Test

		SETTLED BY PLEA OR TRIAL = .00		SETTLED BY PLEA OR TRIAL = 1.00		
		Observed	Expected	Observed	Expected	Total
Step 1	1	542	606.220	6370	6305.780	6912
	2	416	397.945	6494	6512.055	6910
	3	354	308.246	6558	6603.754	6912
	4	268	250.718	6644	6661.282	6912
	5	238	205.983	6674	6706.017	6912
	6	180	169.538	6739	6749.462	6919
	7	139	141.257	6779	6776.743	6918
	8	96	117.477	6804	6782.523	6900
	9	69	94.218	6836	6810.782	6905
	10	57	67.399	6867	6856.601	6924

Classification Table[a]

			Predicted		
			SETTLED BY PLEA OR TRIAL		Percentage Correct
	Observed		.00	1.00	
Step 1	SETTLED BY PLEA OR TRIAL	.00	0	2359	.0
		1.00	0	66765	100.0
	Overall Percentage				96.6

a. The cut value is .500

Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	YEARS	-.197	.014	211.292	1	.000	.821	.800	.843
	NEWRACE	.090	.020	20.243	1	.000	1.094	1.052	1.137
	MONSEX	.436	.068	41.432	1	.000	1.547	1.355	1.767
	NEWEDUC	-.211	.013	267.727	1	.000	.810	.790	.831
	Custody	.127	.047	7.377	1	.007	1.135	1.036	1.244
	DISTRICT	.004	.001	18.677	1	.000	1.004	1.002	1.005
	TOTCHPTS	-.002	.004	.242	1	.623	.998	.990	1.006
	OFFTYPE2	.035	.003	179.429	1	.000	1.036	1.031	1.041
	Constant	3.755	.114	1075.767	1	.000	42.736		

a. Variable(s) entered on step 1: YEARS, NEWRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2.

Categorical Mandatory Minimums vs. Plea Bargaining

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	69124	99.9
	Missing Cases	50	.1
	Total	69174	100.0
Unselected Cases		0	.0
Total		69174	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

			Predicted		
			SETTLED BY PLEA OR TRIAL		Percentage Correct
	Observed		.00	1.00	
Step 0	SETTLED BY PLEA OR TRIAL	.00	0	2359	.0
		1.00	0	66765	100.0
	Overall Percentage				96.6

a. Constant is included in the model.

b. The cut value is .500

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1688.203	9	.000
	Block	1688.203	9	.000
	Model	1688.203	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	18884.179[a]	.024	.094

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	30.756	8	.000

Contingency Table for Hosmer and Lemeshow Test

		SETTLED BY PLEA OR TRIAL = .00		SETTLED BY PLEA OR TRIAL = 1.00		
		Observed	Expected	Observed	Expected	Total
Step 1	1	721	773.710	6192	6139.290	6913
	2	468	422.392	6444	6489.608	6912
	3	335	298.768	6577	6613.232	6912
	4	241	222.773	6671	6689.227	6912
	5	193	172.359	6719	6739.641	6912
	6	128	136.436	6784	6775.564	6912
	7	101	112.157	6811	6799.843	6912
	8	76	92.162	6837	6820.838	6913
	9	57	73.994	6842	6825.006	6899
	10	39	54.250	6888	6872.750	6927

Classification Table[a]

			Predicted		
			SETTLED BY PLEA OR TRIAL		Percentage Correct
	Observed		.00	1.00	
Step 1	SETTLED BY PLEA OR TRIAL	.00	0	2359	.0
		1.00	0	66765	100.0
	Overall Percentage				96.6

a. The cut value is .500

Mandatory Minimums in Months vs. Plea Bargaining

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	69124	99.9
	Missing Cases	50	.1
	Total	69174	100.0
Unselected Cases		0	.0
Total		69174	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

			Predicted		
			SETTLED BY PLEA OR TRIAL		Percentage Correct
	Observed		.00	1.00	
Step 0	SETTLED BY PLEA OR TRIAL	.00	0	2359	.0
		1.00	0	66765	100.0
	Overall Percentage				96.6

a. Constant is included in the model.

b. The cut value is .500

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1150.038	9	.000
	Block	1150.038	9	.000
	Model	1150.038	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	19422.344[a]	.016	.064

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	39.488	8	.000

Contingency Table for Hosmer and Lemeshow Test

		SETTLED BY PLEA OR TRIAL = .00		SETTLED BY PLEA OR TRIAL = 1.00		
		Observed	Expected	Observed	Expected	Total
Step 1	1	580	629.030	6333	6283.970	6913
	2	414	391.103	6498	6520.897	6912
	3	346	302.964	6566	6609.036	6912
	4	265	246.934	6647	6665.066	6912
	5	243	203.005	6669	6708.995	6912
	6	169	167.325	6737	6738.675	6906
	7	123	139.969	6789	6772.031	6912
	8	103	116.953	6810	6796.047	6913
	9	61	94.053	6849	6815.947	6910
	10	55	67.666	6867	6854.334	6922

Classification Table[a]

			Predicted		
			SETTLED BY PLEA OR TRIAL		Percentage Correct
	Observed		.00	1.00	
Step 1	SETTLED BY PLEA OR TRIAL	.00	14	2345	.6
		1.00	30	66735	100.0
	Overall Percentage				96.6

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	YEARS	-.196	.014	207.132	1	.000	.822	.801	.844
	NEWRACE	.088	.020	19.442	1	.000	1.092	1.050	1.136
	MONSEX	.423	.068	38.807	1	.000	1.526	1.336	1.743
	NEWEDUC	-.211	.013	265.848	1	.000	.810	.790	.831
	Custody	.133	.047	8.064	1	.005	1.142	1.042	1.252
	DISTRICT	.004	.001	17.586	1	.000	1.004	1.002	1.005
	TOTCHPTS	.001	.004	.057	1	.812	1.001	.993	1.009
	OFFTYPE2	.033	.003	158.258	1	.000	1.034	1.028	1.039
	ManMinSenMonths	.000	.000	173.086	1	.000	1.000	1.000	1.000
	Constant	3.804	.115	1094.525	1	.000	44.892		

a. Variable(s) entered on step 1: YEARS, NEWRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2, ManMinSenMonths.

Appendix C: Complete Descriptive Statistics for 2012-2010 Data

2012

Defendant's Age by Category

CATEGORIES OF AGE RANGES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<21	3030	3.6	3.6	3.6
	21 through 25	12341	14.7	14.7	18.3
	26 through 30	15431	18.3	18.4	36.7
	31 through 35	15474	18.4	18.4	55.1
	36 through 40	12679	15.1	15.1	70.2
	41 through 50	15920	18.9	19.0	89.2
	>50	9077	10.8	10.8	100.0
	Total	83952	99.7	100.0	
Missing	System	221	.3		
Total		84173	100.0		

Race of Defendant

RACE OF DEFENDANT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	20847	24.8	27.5	27.5
	Black	15516	18.4	20.4	47.9
	Hispanic	36713	43.6	48.4	96.3
	Other	2818	3.3	3.7	100.0
	Total	75894	90.2	100.0	
Missing	System	8279	9.8		
Total		84173	100.0		

Gender of Defendant

DEFENDANT'S GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	70584	83.9	86.8	86.8
	Female	10763	12.8	13.2	100.0
	Total	81347	96.6	100.0	
Missing	System	2826	3.4		
Total		84173	100.0		

Defendant's Presentence Detention Status

Custody

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	26013	30.9	30.9	30.9
	1	58160	69.1	69.1	100.0
	Total	84173	100.0	100.0	

Defendant's Highest Level of Education

EDUCATION OF DEFENDANT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than H.S. graduate	36800	43.7	49.9	49.9
	H.S. graduate	21420	25.4	29.1	79.0
	Some college	11438	13.6	15.5	94.5
	College graduate	4049	4.8	5.5	100.0
	Total	73707	87.6	100.0	
Missing	System	10466	12.4		
Total		84173	100.0		

Disposition of Defendant's Case
**1=plea bargain; 0=trial*

Disposition

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2479	3.3	3.3	3.3
	1	73090	96.7	96.7	100.0
	Total	75569	100.0	100.0	

District in Which Defendant was Sentenced

DISTRICT IN WHICH DEFENDANT WAS SENTENCED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Maine	191	.2	.2	.2
	Massachusetts	519	.6	.6	.8
	New Hampshire	158	.2	.2	1.0
	Rhode Island	197	.2	.2	1.3
	Puerto Rico	1450	1.7	1.7	3.0
	Connecticut	446	.5	.5	3.5
	New York North	622	.7	.7	4.3
	New York East	965	1.1	1.1	5.4
	New York South	1540	1.8	1.8	7.2
	New York West	665	.8	.8	8.0
	Vermont	229	.3	.3	8.3
	Delaware	93	.1	.1	8.4
	New jersey	854	1.0	1.0	9.4
	Pennsylvania East	826	1.0	1.0	10.4
	Pennsylvania Middle	504	.6	.6	11.0
	Pennsylvania West	516	.6	.6	11.6
	Maryland	1059	1.3	1.3	12.9
	North Carolina East	816	1.0	1.0	13.8
	North Carolina Middle	421	.5	.5	14.3
	North Carolina West	435	.5	.5	14.9
	South Carolina	925	1.1	1.1	16.0
	Virginia East	1896	2.3	2.3	18.2
	Virginia West	378	.4	.4	18.7
	West Virginia North	324	.4	.4	19.0
	West Virginia South	305	.4	.4	19.4
	Alabama North	449	.5	.5	19.9
	Alabama Middle	211	.3	.3	20.2
	Alabama South	452	.5	.5	20.7
	Florida North	358	.4	.4	21.2
	Florida Middle	1691	2.0	2.0	23.2
	Florida South	2175	2.6	2.6	25.7
	Georgia North	665	.8	.8	26.5
	Georgia Middle	454	.5	.5	27.1
	Georgia South	527	.6	.6	27.7
	Louisiana East	361	.4	.4	28.1
	Louisiana West	435	.5	.5	28.6
	Mississippi North	171	.2	.2	28.8
	Mississippi South	289	.3	.3	29.2
	Texas North	1005	1.2	1.2	30.4
	Texas East	922	1.1	1.1	31.5
	Texas South	6586	7.8	7.8	39.3
	Texas West	9329	11.1	11.1	50.4
	Kentucky East	501	.6	.6	51.0
	Kentucky West	411	.5	.5	51.5
	Michigan East	908	1.1	1.1	52.6
	Michigan West	466	.6	.6	53.1
	Ohio North	909	1.1	1.1	54.2
	Ohio South	630	.7	.7	54.9
	Tennessee East	862	1.0	1.0	56.0
	Tennessee Middle	332	.4	.4	56.4
	Tennessee West	580	.7	.7	57.0
	Illinois North	845	1.0	1.0	58.0
	Illinois Central	417	.5	.5	58.5
	Illinois South	413	.5	.5	59.0
	Indiana North	407	.5	.5	59.5
	Indiana South	433	.5	.5	60.0
	Wisconsin East	500	.6	.6	60.6
	Wisconsin West	156	.2	.2	60.8
	Arkansas East	397	.5	.5	61.3
	Arkansas West	328	.4	.4	61.7
	Iowa North	390	.5	.5	62.1
	Iowa South	426	.5	.5	62.6
	Minnesota	446	.5	.5	63.2
	Missouri East	790	.9	.9	64.1
	Missouri West	783	.9	.9	65.0
	Nebraska	602	.7	.7	65.8
	North Dakota	288	.3	.3	66.1
	South Dakota	459	.5	.5	66.6
	Arizona	8919	10.6	10.6	77.2
	California North	752	.9	.9	78.1
	California East	1035	1.2	1.2	79.4
	California Central	1798	2.1	2.1	81.5
	California South	5309	6.3	6.3	87.8
	Hawaii	242	.3	.3	88.1
	Idaho	285	.3	.3	88.4
	Montana	390	.5	.5	88.9
	Nevada	621	.7	.7	89.6
	Oregon	651	.8	.8	90.4
	Washington East	305	.4	.4	90.8
	Washington West	733	.9	.9	91.6
	Colorado	567	.7	.7	92.3
	Kansas	722	.9	.9	93.2
	New Mexico	3052	3.6	3.6	96.8
	Oklahoma North	203	.2	.2	97.0
	Oklahoma East	92	.1	.1	97.1
	Oklahoma West	518	.6	.6	97.8
	Utah	675	.8	.8	98.6
	Wyoming	276	.3	.3	98.9
	District of Columbia	355	.4	.4	99.3
	Virgin Islands	65	.1	.1	99.4
	Guam	59	.1	.1	99.5
	Northern Mariana Island	15	.0	.0	99.5
	Alaska	211	.3	.3	99.7
	Louisiana Middle	230	.3	.3	100.0
	Total	84173	100.0	100.0	

Defendant's Criminal History Status

TOTAL NUMBER OF CRIMINAL HISTORY POINTS APPLIED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	27490	32.7	36.0	36.0
	1	6868	8.2	9.0	45.0
	2	4119	4.9	5.4	50.4
	3	6499	7.7	8.5	58.9
	4	4646	5.5	6.1	65.0
	5	4595	5.5	6.0	71.0
	6	4347	5.2	5.7	76.7
	7	2616	3.1	3.4	80.1
	8	2969	3.5	3.9	84.0
	9	2317	2.8	3.0	87.0
	10	1706	2.0	2.2	89.3
	11	1649	2.0	2.2	91.4
	12	1354	1.6	1.8	93.2
	13	891	1.1	1.2	94.4
	14	889	1.1	1.2	95.5
	15	615	.7	.8	96.3
	16	510	.6	.7	97.0
	17	512	.6	.7	97.7
	18	338	.4	.4	98.1
	19	271	.3	.4	98.5
	20	261	.3	.3	98.8
	21	174	.2	.2	99.1
	22	133	.2	.2	99.2
	23	114	.1	.1	99.4
	24	88	.1	.1	99.5
	25	74	.1	.1	99.6
	26	68	.1	.1	99.7
	27	52	.1	.1	99.7
	28	36	.0	.0	99.8
	29	24	.0	.0	99.8
	30	34	.0	.0	99.9
	31	22	.0	.0	99.9
	32	18	.0	.0	99.9
	33	5	.0	.0	99.9
	34	14	.0	.0	99.9
	35	6	.0	.0	100.0
	36	6	.0	.0	100.0
	37	3	.0	.0	100.0
	38	5	.0	.0	100.0
	39	3	.0	.0	100.0
	40	2	.0	.0	100.0
	41	5	.0	.0	100.0
	42	1	.0	.0	100.0
	43	1	.0	.0	100.0
	46	5	.0	.0	100.0
	47	1	.0	.0	100.0
	48	1	.0	.0	100.0
	49	1	.0	.0	100.0
	Total	76358	90.7	100.0	
Missing	System	7815	9.3		
Total		84173	100.0		

Offense Type

PRIMARY OFFENSE TYPE GENERATED FROM CONVICTION WITH HIGHEST STATUTORY MAX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Murder	65	.1	.1	.1
	Manslaughter	50	.1	.1	.1
	Kidnapping / hostage	49	.1	.1	.2
	Sexual abuse	428	.5	.5	.7
	Assault	714	.8	.8	1.6
	Bank robbery (includes offtype=7, other robbery)	852	1.0	1.0	2.6
	Arson	48	.1	.1	2.6
	Drugs: trafficking	24736	29.4	29.4	32.0
	Drugs: communication facilities	373	.4	.4	32.5
	Drugs: simple possession	1451	1.7	1.7	34.2
	Firearms: use (incld offtype=14, firearms possn trafficking)	8105	9.6	9.6	43.8
	Burglary/breaking and entering	42	.0	.0	43.9
	Auto theft	61	.1	.1	43.9
	Larceny	1397	1.7	1.7	45.6
	Fraud	8634	10.3	10.3	55.8
	Embezzlement	326	.4	.4	56.2
	Forgery/counterfeiting	876	1.0	1.0	57.3
	Bribery	229	.3	.3	57.5
	Tax offenses	608	.7	.7	58.3
	Money laundering	822	1.0	1.0	59.2
	Racketeering (includes offtype=8, extortion)	912	1.1	1.1	60.3
	Gambling/lottery	45	.1	.1	60.4
	Civil rights offenses	53	.1	.1	60.4
	Immigration	26548	31.5	31.5	92.0
	Offenses in prisons	429	.5	.5	92.5
	Admin just (inc access after fact, misprision, witness tamp)	1338	1.6	1.6	94.1
	Environmental, game, fish, and wildlife	204	.2	.2	94.3
	National defense offenses	114	.1	.1	94.5
	Antitrust violations	20	.0	.0	94.5
	Food and drug offenses	60	.1	.1	94.6
	Traf viols other offns (incld offtype=35, 36,37,38,39,40,41)	2379	2.8	2.8	97.4
	Child Pornography	2014	2.4	2.4	99.8
	Obscenity	25	.0	.0	99.8
	Prostitution	166	.2	.2	100.0
	Total	84173	100.0	100.0	

Mandatory Minimum Sentence in Months

ManMinMonths

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	59855	71.1	74.3	74.3
	1	22	.0	.0	74.4
	3	16	.0	.0	74.4
	6	2	.0	.0	74.4
	8	1	.0	.0	74.4
	10	1	.0	.0	74.4
	11	1	.0	.0	74.4
	12	214	.3	.3	74.7
	20	1	.0	.0	74.7
	21	1	.0	.0	74.7
	24	853	1.0	1.1	75.7
	27	1	.0	.0	75.7
	32	1	.0	.0	75.7
	36	76	.1	.1	75.8
	42	2	.0	.0	75.8
	45	1	.0	.0	75.8
	48	16	.0	.0	75.8
	50	2	.0	.0	75.8
	55	1	.0	.0	75.8
	60	8608	10.2	10.7	86.5
	61	1	.0	.0	86.5
	72	12	.0	.0	86.5
	84	445	.5	.6	87.1
	90	1	.0	.0	87.1
	96	2	.0	.0	87.1
	120	8140	9.7	10.1	97.2
	126	1	.0	.0	97.2
	134	1	.0	.0	97.2
	144	8	.0	.0	97.2
	168	1	.0	.0	97.2
	180	1183	1.4	1.5	98.7
	204	10	.0	.0	98.7
	216	1	.0	.0	98.7
	240	587	.7	.7	99.4
	262	1	.0	.0	99.4
	264	20	.0	.0	99.5
	300	56	.1	.1	99.5
	324	1	.0	.0	99.5
	360	40	.0	.0	99.6
	372	1	.0	.0	99.6
	384	66	.1	.1	99.7
	420	27	.0	.0	99.7
	444	1	.0	.0	99.7
	480	8	.0	.0	99.7
	504	6	.0	.0	99.7
	540	6	.0	.0	99.7
	564	1	.0	.0	99.7
	600	5	.0	.0	99.7
	660	1	.0	.0	99.7
	684	10	.0	.0	99.8
	720	4	.0	.0	99.8
	780	2	.0	.0	99.8
	840	1	.0	.0	99.8
	900	1	.0	.0	99.8
	960	1	.0	.0	99.8
	984	3	.0	.0	99.8
	1080	1	.0	.0	99.8
	1164	1	.0	.0	99.8
	1284	1	.0	.0	99.8
	1740	1	.0	.0	99.8
	1764	1	.0	.0	99.8
	1800	1	.0	.0	99.8
	1884	4	.0	.0	99.8
	2220	2	.0	.0	99.8
	2784	1	.0	.0	99.8
	9996	176	.2	.2	100.0
	Total	80519	95.7	100.0	
Missing	System	3654	4.3		
Total		84173	100.0		

Mandatory Sentence Imposed

**1=yes; 0=no*

StatMin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	63509	75.5	75.5	75.5
	1	20664	24.5	24.5	100.0
	Total	84173	100.0	100.0	

2011

CATEGORIES OF AGE RANGES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<21	3234	3.8	3.8	3.8
	21 through 25	12872	14.9	15.0	18.8
	26 through 30	16595	19.3	19.3	38.1
	31 through 35	15865	18.4	18.5	56.6
	36 through 40	12976	15.1	15.1	71.7
	41 through 50	15509	18.0	18.1	89.8
	>50	8745	10.1	10.2	100.0
	Total	85796	99.5	100.0	
Missing	System	405	.5		
Total		86201	100.0		

RACE OF DEFENDANT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	20446	23.7	26.3	26.3
	Black	15445	17.9	19.8	46.1
	Hispanic	39221	45.5	50.4	96.5
	Other	2733	3.2	3.5	100.0
	Total	77845	90.3	100.0	
Missing	System	8356	9.7		
Total		86201	100.0		

DEFENDANT'S GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	72781	84.4	86.5	86.5
	Female	11407	13.2	13.5	100.0
	Total	84188	97.7	100.0	
Missing	System	2013	2.3		
Total		86201	100.0		

EDUCATION OF DEFENDANT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than H.S. graduate	39342	45.6	52.0	52.0
	H.S. graduate	21286	24.7	28.1	80.1
	Some college	10910	12.7	14.4	94.5
	College graduate	4184	4.9	5.5	100.0
	Total	75722	87.8	100.0	
Missing	System	10479	12.2		
Total		86201	100.0		

Custody

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	25641	29.7	29.7	29.7
	1	60560	70.3	70.3	100.0
	Total	86201	100.0	100.0	

DISTRICT IN WHICH DEFENDANT WAS SENTENCED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Maine	193	.2	.2	.2
	Massachusetts	570	.7	.7	.9
	New Hampshire	204	.2	.2	1.1
	Rhode Island	212	.2	.2	1.4
	Puerto Rico	1196	1.4	1.4	2.8
	Connecticut	342	.4	.4	3.2
	New York North	583	.7	.7	3.8
	New York East	1150	1.3	1.3	5.2
	New York South	1593	1.8	1.8	7.0
	New York West	803	.9	.9	7.9
	Vermont	163	.2	.2	8.1
	Delaware	121	.1	.1	8.3
	New jersey	805	.9	.9	9.2
	Pennsylvania East	987	1.1	1.1	10.4
	Pennsylvania Middle	500	.6	.6	10.9
	Pennsylvania West	491	.6	.6	11.5
	Maryland	901	1.0	1.0	12.5
	North Carolina East	853	1.0	1.0	13.5
	North Carolina Middle	529	.6	.6	14.1
	North Carolina West	551	.6	.6	14.8
	South Carolina	1048	1.2	1.2	16.0
	Virginia East	2067	2.4	2.4	18.4
	Virginia West	379	.4	.4	18.8
	West Virginia North	312	.4	.4	19.2
	West Virginia South	312	.4	.4	19.6
	Alabama North	473	.5	.5	20.1
	Alabama Middle	230	.3	.3	20.4
	Alabama South	439	.5	.5	20.9
	Florida North	374	.4	.4	21.3
	Florida Middle	1529	1.8	1.8	23.1
	Florida South	2138	2.5	2.5	25.6
	Georgia North	711	.8	.8	26.4
	Georgia Middle	445	.5	.5	26.9
	Georgia South	752	.9	.9	27.8
	Louisiana East	347	.4	.4	28.2
	Louisiana West	305	.4	.4	28.5
	Mississippi North	184	.2	.2	28.8
	Mississippi South	309	.4	.4	29.1
	Texas North	919	1.1	1.1	30.2
	Texas East	1010	1.2	1.2	31.4
	Texas South	8314	9.6	9.6	41.0
	Texas West	8526	9.9	9.9	50.9
	Kentucky East	608	.7	.7	51.6
	Kentucky West	435	.5	.5	52.1
	Michigan East	827	1.0	1.0	53.1
	Michigan West	501	.6	.6	53.6
	Ohio North	631	.7	.7	54.4
	Ohio South	744	.9	.9	55.2
	Tennessee East	913	1.1	1.1	56.3
	Tennessee Middle	347	.4	.4	56.7
	Tennessee West	640	.7	.7	57.4
	Illinois North	928	1.1	1.1	58.5
	Illinois Central	360	.4	.4	58.9
	Illinois South	345	.4	.4	59.3
	Indiana North	454	.5	.5	59.9
	Indiana South	289	.3	.3	60.2
	Wisconsin East	501	.6	.6	60.8
	Wisconsin West	187	.2	.2	61.0
	Arkansas East	325	.4	.4	61.4
	Arkansas West	318	.4	.4	61.7
	Iowa North	520	.6	.6	62.3
	Iowa South	407	.5	.5	62.8
	Minnesota	454	.5	.5	63.3
	Missouri East	817	.9	.9	64.3
	Missouri West	658	.8	.8	65.1
	Nebraska	563	.7	.7	65.7
	North Dakota	275	.3	.3	66.0
	South Dakota	435	.5	.5	66.5
	Arizona	9362	10.9	10.9	77.4
	California North	814	.9	.9	78.3
	California East	1046	1.2	1.2	79.6
	California Central	1895	2.2	2.2	81.7
	California South	4835	5.6	5.6	87.4
	Hawaii	206	.2	.2	87.6
	Idaho	348	.4	.4	88.0
	Montana	312	.4	.4	88.4
	Nevada	651	.8	.8	89.1
	Oregon	665	.8	.8	89.9
	Washington East	371	.4	.4	90.3
	Washington West	792	.9	.9	91.2
	Colorado	667	.8	.8	92.0
	Kansas	699	.8	.8	92.8
	New Mexico	3152	3.7	3.7	96.5
	Oklahoma North	197	.2	.2	96.7
	Oklahoma East	104	.1	.1	96.8
	Oklahoma West	508	.6	.6	97.4
	Utah	1086	1.3	1.3	98.7
	Wyoming	355	.4	.4	99.1
	District of Columbia	365	.4	.4	99.5
	Virgin Islands	62	.1	.1	99.6
	Guam	54	.1	.1	99.6
	Northern Mariana Island	10	.0	.0	99.7
	Alaska	153	.2	.2	99.8

TOTAL NUMBER OF CRIMINAL HISTORY POINTS APPLIED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	27447	31.8	35.2	35.2
	1	6933	8.0	8.9	44.1
	2	4416	5.1	5.7	49.8
	3	6690	7.8	8.6	58.4
	4	4614	5.4	5.9	64.3
	5	4521	5.2	5.8	70.1
	6	4778	5.5	6.1	76.2
	7	2698	3.1	3.5	79.7
	8	2981	3.5	3.8	83.5
	9	2485	2.9	3.2	86.7
	10	1771	2.1	2.3	89.0
	11	1722	2.0	2.2	91.2
	12	1484	1.7	1.9	93.1
	13	906	1.1	1.2	94.2
	14	904	1.0	1.2	95.4
	15	733	.9	.9	96.3
	16	537	.6	.7	97.0
	17	469	.5	.6	97.6
	18	397	.5	.5	98.1
	19	275	.3	.4	98.5
	20	243	.3	.3	98.8
	21	173	.2	.2	99.0
	22	142	.2	.2	99.2
	23	124	.1	.2	99.4
	24	101	.1	.1	99.5
	25	79	.1	.1	99.6
	26	73	.1	.1	99.7
	27	54	.1	.1	99.8
	28	22	.0	.0	99.8
	29	25	.0	.0	99.8
	30	22	.0	.0	99.9
	31	22	.0	.0	99.9
	32	16	.0	.0	99.9
	33	15	.0	.0	99.9
	34	11	.0	.0	99.9
	35	7	.0	.0	99.9
	36	5	.0	.0	100.0
	37	8	.0	.0	100.0
	38	5	.0	.0	100.0
	39	4	.0	.0	100.0
	40	5	.0	.0	100.0
	41	2	.0	.0	100.0
	42	3	.0	.0	100.0
	43	2	.0	.0	100.0
	44	1	.0	.0	100.0
	45	1	.0	.0	100.0
	48	1	.0	.0	100.0
	51	2	.0	.0	100.0
	52	1	.0	.0	100.0
	58	2	.0	.0	100.0
	60	1	.0	.0	100.0
	Total	77933	90.4	100.0	
Missing	System	8268	9.6		
Total		86201	100.0		

PRIMARY OFFENSE TYPE GENERATED FROM CONVICTION WITH HIGHEST STATUTORY MAX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Murder	74	.1	.1	.1
	Manslaughter	65	.1	.1	.2
	Kidnapping / hostage	69	.1	.1	.2
	Sexual abuse	395	.5	.5	.7
	Assault	680	.8	.8	1.5
	Bank robbery (includes offtype=7, other robbery)	957	1.1	1.1	2.6
	Arson	55	.1	.1	2.7
	Drugs: trafficking	24442	28.4	28.4	31.0
	Drugs: communication facilities	469	.5	.5	31.6
	Drugs: simple possession	902	1.0	1.0	32.6
	Firearms: use (incld offtype=14, firearms possn trafficking)	7858	9.1	9.1	41.7
	Burglary/breaking and entering	52	.1	.1	41.8
	Auto theft	85	.1	.1	41.9
	Larceny	1528	1.8	1.8	43.7
	Fraud	8332	9.7	9.7	53.3
	Embezzlement	391	.5	.5	53.8
	Forgery/counterfeiting	941	1.1	1.1	54.9
	Bribery	221	.3	.3	55.1
	Tax offenses	677	.8	.8	55.9
	Money laundering	844	1.0	1.0	56.9
	Racketeering (includes offtype=8, extortion)	731	.8	.8	57.7
	Gambling/lottery	80	.1	.1	57.8
	Civil rights offenses	59	.1	.1	57.9
	Immigration	29717	34.5	34.5	92.4
	Offenses in prisons	419	.5	.5	92.9
	Admin just (inc access after fact, misprision, witness tamp)	1188	1.4	1.4	94.2
	Environmental, game, fish, and wildlife	201	.2	.2	94.5
	National defense offenses	88	.1	.1	94.6
	Antitrust violations	10	.0	.0	94.6
	Food and drug offenses	55	.1	.1	94.6
	Traf viols other offns (incld offtype=35, 36,37,38,39,40,41)	2623	3.0	3.0	97.7
	Child Pornography	1855	2.2	2.2	99.8
	Obscenity	25	.0	.0	99.9
	Prostitution	113	.1	.1	100.0
	Total	86201	100.0	100.0	

TOTAL STATUTORY MINIMUM PRISON TERM IN MONTHS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	61982	71.9	75.3	75.3
	1	19	.0	.0	75.3
	3	19	.0	.0	75.3
	4	4	.0	.0	75.3
	6	10	.0	.0	75.3
	7	1	.0	.0	75.3
	9	1	.0	.0	75.3
	10	1	.0	.0	75.3
	12	191	.2	.2	75.6
	15	1	.0	.0	75.6
	16	2	.0	.0	75.6
	18	1	.0	.0	75.6
	24	809	.9	1.0	76.6
	28	1	.0	.0	76.6
	30	1	.0	.0	76.6
	33	1	.0	.0	76.6
	36	66	.1	.1	76.6
	48	12	.0	.0	76.7
	54	1	.0	.0	76.7
	60	8194	9.5	10.0	86.6
	66	1	.0	.0	86.6
	68	2	.0	.0	86.6
	72	21	.0	.0	86.6
	78	1	.0	.0	86.6
	84	448	.5	.5	87.2
	96	2	.0	.0	87.2
	120	8324	9.7	10.1	97.3
	121	2	.0	.0	97.3
	132	3	.0	.0	97.3
	144	5	.0	.0	97.3
	150	1	.0	.0	97.3
	180	1121	1.3	1.4	98.7
	204	11	.0	.0	98.7
	240	627	.7	.8	99.4
	241	1	.0	.0	99.4
	264	14	.0	.0	99.5
	300	64	.1	.1	99.5
	310	1	.0	.0	99.5
	360	24	.0	.0	99.6
	384	63	.1	.1	99.6
	420	29	.0	.0	99.7
	444	1	.0	.0	99.7
	480	12	.0	.0	99.7
	504	7	.0	.0	99.7
	540	4	.0	.0	99.7
	564	2	.0	.0	99.7
	600	3	.0	.0	99.7
	660	2	.0	.0	99.7
	684	12	.0	.0	99.7
	720	1	.0	.0	99.7
	840	1	.0	.0	99.7
	900	1	.0	.0	99.7
	960	1	.0	.0	99.7
	984	5	.0	.0	99.7
	1020	2	.0	.0	99.7
	1080	2	.0	.0	99.7
	1140	1	.0	.0	99.7
	1164	1	.0	.0	99.7
	1284	5	.0	.0	99.8
	1500	1	.0	.0	99.8
	1884	1	.0	.0	99.8
	3684	1	.0	.0	99.8
	Life	198	.2	.2	100.0
	Total	82346	95.5	100.0	
Missing	System	3855	4.5		
Total		86201	100.0		

ManMin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	65837	76.4	76.4	76.4
	1	20364	23.6	23.6	100.0
	Total	86201	100.0	100.0	

Disposition

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	2691	3.1	3.1	3.1
	1.00	83509	96.9	96.9	100.0
	Total	86200	100.0	100.0	
Missing	System	1	.0		
Total		86201	100.0		

Statistics

TOTAL STATUTORY MINIMUM PRISON

N	Valid	82346
	Missing	3855
Mean		48.72
Median		.00
Mode		0
Percentiles	25	.00
	50	.00
	75	.00

2010

CATEGORIES OF AGE RANGES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<21	3198	3.8	3.8	3.8
	21 through 25	13110	15.6	15.7	19.5
	26 through 30	16318	19.4	19.6	39.1
	31 through 35	15209	18.1	18.2	57.3
	36 through 40	12259	14.6	14.7	72.0
	41 through 50	14986	17.9	18.0	90.0
	>50	8370	10.0	10.0	100.0
	Total	83450	99.4	100.0	
Missing	System	497	.6		
Total		83947	100.0		

DEFENDANT'S GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	70860	84.4	86.8	86.8
	Female	10745	12.8	13.2	100.0
	Total	81605	97.2	100.0	
Missing	System	2342	2.8		
Total		83947	100.0		

EDUCATION OF DEFENDANT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than H.S. graduate	37433	44.6	51.4	51.4
	H.S. graduate	20906	24.9	28.7	80.1
	Some college	10557	12.6	14.5	94.6
	College graduate	3916	4.7	5.4	100.0
	Total	72812	86.7	100.0	
Missing	System	11135	13.3		
Total		83947	100.0		

Custody

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	24413	29.1	29.1	29.1
	1	59533	70.9	70.9	100.0
	Total	83946	100.0	100.0	
Missing	System	1	.0		
Total		83947	100.0		

DISTRICT IN WHICH DEFENDANT WAS SENTENCED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Maine	169	.2	.2	.2
	Massachusetts	449	.5	.5	.7
	New Hampshire	231	.3	.3	1.0
	Rhode Island	159	.2	.2	1.2
	Puerto Rico	881	1.0	1.0	2.3
	Connecticut	428	.5	.5	2.8
	New York North	515	.6	.6	3.4
	New York East	1176	1.4	1.4	4.8
	New York South	1435	1.7	1.7	6.5
	New York West	667	.8	.8	7.3
	Vermont	178	.2	.2	7.5
	Delaware	131	.2	.2	7.6
	New jersey	818	1.0	1.0	8.6
	Pennsylvania East	936	1.1	1.1	9.7
	Pennsylvania Middle	495	.6	.6	10.3
	Pennsylvania West	499	.6	.6	10.9
	Maryland	794	.9	.9	11.9
	North Carolina East	766	.9	.9	12.8
	North Carolina Middle	552	.7	.7	13.4
	North Carolina West	502	.6	.6	14.0
	South Carolina	1250	1.5	1.5	15.5
	Virginia East	2075	2.5	2.5	18.0
	Virginia West	369	.4	.4	18.4
	West Virginia North	286	.3	.3	18.8
	West Virginia South	242	.3	.3	19.1
	Alabama North	432	.5	.5	19.6
	Alabama Middle	243	.3	.3	19.9
	Alabama South	307	.4	.4	20.2
	Florida North	396	.5	.5	20.7
	Florida Middle	1678	2.0	2.0	22.7
	Florida South	2355	2.8	2.8	25.5
	Georgia North	703	.8	.8	26.3
	Georgia Middle	421	.5	.5	26.8
	Georgia South	710	.8	.8	27.7
	Louisiana East	414	.5	.5	28.2
	Louisiana West	397	.5	.5	28.7
	Mississippi North	172	.2	.2	28.9
	Mississippi South	332	.4	.4	29.3
	Texas North	931	1.1	1.1	30.4
	Texas East	848	1.0	1.0	31.4
	Texas South	8494	10.1	10.1	41.5
	Texas West	8833	10.5	10.5	52.0
	Kentucky East	637	.8	.8	52.8
	Kentucky West	508	.6	.6	53.4
	Michigan East	750	.9	.9	54.3
	Michigan West	544	.6	.6	54.9
	Ohio North	667	.8	.8	55.7
	Ohio South	682	.8	.8	56.5
	Tennessee East	847	1.0	1.0	57.5
	Tennessee Middle	309	.4	.4	57.9
	Tennessee West	678	.8	.8	58.7
	Illinois North	882	1.1	1.1	59.8
	Illinois Central	376	.4	.4	60.2
	Illinois South	318	.4	.4	60.6
	Indiana North	464	.6	.6	61.1
	Indiana South	331	.4	.4	61.5
	Wisconsin East	472	.6	.6	62.1
	Wisconsin West	210	.3	.3	62.4
	Arkansas East	392	.5	.5	62.8
	Arkansas West	258	.3	.3	63.1
	Iowa North	344	.4	.4	63.5
	Iowa South	456	.5	.5	64.1
	Minnesota	505	.6	.6	64.7
	Missouri East	1048	1.2	1.2	65.9
	Missouri West	659	.8	.8	66.7
	Nebraska	602	.7	.7	67.4
	North Dakota	261	.3	.3	67.7
	South Dakota	404	.5	.5	68.2
	Arizona	6792	8.1	8.1	76.3
	California North	884	1.1	1.1	77.4
	California East	1005	1.2	1.2	78.6
	California Central	2127	2.5	2.5	81.1
	California South	4586	5.5	5.5	86.6
	Hawaii	166	.2	.2	86.8
	Idaho	301	.4	.4	87.1
	Montana	378	.5	.5	87.6
	Nevada	620	.7	.7	88.3
	Oregon	633	.8	.8	89.1
	Washington East	404	.5	.5	89.5
	Washington West	875	1.0	1.0	90.6
	Colorado	531	.6	.6	91.2
	Kansas	728	.9	.9	92.1
	New Mexico	3723	4.4	4.4	96.5
	Oklahoma North	155	.2	.2	96.7
	Oklahoma East	113	.1	.1	96.8
	Oklahoma West	419	.5	.5	97.3
	Utah	900	1.1	1.1	98.4
	Wyoming	417	.5	.5	98.9
	District of Columbia	394	.5	.5	99.4
	Virgin Islands	76	.1	.1	99.5
	Guam	58	.1	.1	99.5
	Northern Mariana Island	28	.0	.0	99.6
	Alaska	158	.2	.2	99.8
	Louisiana Middle	202	.2	.2	100.0
	Total	83946	100.0	100.0	
Missing	System	1	.0		
Total		83947	100.0		

TOTAL NUMBER OF CRIMINAL HISTORY POINTS APPLIED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	26729	31.8	35.4	35.4
	1	6415	7.6	8.5	44.0
	2	3666	4.4	4.9	48.8
	3	5727	6.8	7.6	56.4
	4	4069	4.8	5.4	61.8
	5	3889	4.6	5.2	67.0
	6	4838	5.8	6.4	73.4
	7	2699	3.2	3.6	77.0
	8	2824	3.4	3.7	80.7
	9	2873	3.4	3.8	84.5
	10	1825	2.2	2.4	86.9
	11	1749	2.1	2.3	89.3
	12	1656	2.0	2.2	91.4
	13	1096	1.3	1.5	92.9
	14	996	1.2	1.3	94.2
	15	917	1.1	1.2	95.4
	16	621	.7	.8	96.3
	17	534	.6	.7	97.0
	18	446	.5	.6	97.6
	19	334	.4	.4	98.0
	20	286	.3	.4	98.4
	21	240	.3	.3	98.7
	22	160	.2	.2	98.9
	23	143	.2	.2	99.1
	24	153	.2	.2	99.3
	25	100	.1	.1	99.4
	26	72	.1	.1	99.5
	27	71	.1	.1	99.6
	28	48	.1	.1	99.7
	29	45	.1	.1	99.8
	30	32	.0	.0	99.8
	31	34	.0	.0	99.8
	32	28	.0	.0	99.9
	33	17	.0	.0	99.9
	34	18	.0	.0	99.9
	35	12	.0	.0	99.9
	36	11	.0	.0	100.0
	37	5	.0	.0	100.0
	38	6	.0	.0	100.0
	39	6	.0	.0	100.0
	40	1	.0	.0	100.0
	41	2	.0	.0	100.0
	42	1	.0	.0	100.0
	43	2	.0	.0	100.0
	44	3	.0	.0	100.0
	45	2	.0	.0	100.0
	50	1	.0	.0	100.0
	51	1	.0	.0	100.0
	53	1	.0	.0	100.0
	55	1	.0	.0	100.0
	56	1	.0	.0	100.0
	65	1	.0	.0	100.0
	Total	75407	89.8	100.0	
Missing	System	8540	10.2		
Total		83947	100.0		

PRIMARY OFFENSE TYPE GENERATED FROM CONVICTION WITH HIGHEST STATUTORY MAX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Murder	66	.1	.1	.1
	Manslaughter	64	.1	.1	.2
	Kidnapping / hostage	39	.0	.0	.2
	Sexual abuse	384	.5	.5	.7
	Assault	631	.8	.8	1.4
	Bank robbery (includes offtype=7, other robbery)	1081	1.3	1.3	2.7
	Arson	75	.1	.1	2.8
	Drugs: trafficking	23506	28.0	28.0	30.8
	Drugs: communication facilities	512	.6	.6	31.4
	Drugs: simple possession	1025	1.2	1.2	32.6
	Firearms: use (incld offtype=14, firearms possn trafficking)	7986	9.5	9.5	42.1
	Burglary/breaking and entering	36	.0	.0	42.2
	Auto theft	91	.1	.1	42.3
	Larceny	1621	1.9	1.9	44.2
	Fraud	8067	9.6	9.6	53.8
	Embezzlement	435	.5	.5	54.3
	Forgery/counterfeiting	880	1.0	1.0	55.4
	Bribery	224	.3	.3	55.7
	Tax offenses	665	.8	.8	56.5
	Money laundering	806	1.0	1.0	57.4
	Racketeering (includes offtype=8, extortion)	675	.8	.8	58.2
	Gambling/lottery	76	.1	.1	58.3
	Civil rights offenses	61	.1	.1	58.4
	Immigration	28504	34.0	34.0	92.3
	Offenses in prisons	424	.5	.5	92.8
	Admin just (inc access after fact, misprision, witness tamp)	1157	1.4	1.4	94.2
	Environmental, game, fish, and wildlife	188	.2	.2	94.4
	National defense offenses	70	.1	.1	94.5
	Antitrust violations	16	.0	.0	94.5
	Food and drug offenses	84	.1	.1	94.6
	Traf viols other offns (incld offtype=35, 36,37,38,39,40,41)	2475	2.9	2.9	97.6
	Child Pornography	1886	2.2	2.2	99.8
	Obscenity	31	.0	.0	99.9
	Prostitution	105	.1	.1	100.0
	Total	83946	100.0	100.0	
Missing	System	1	.0		
Total		83947	100.0		

TOTAL STATUTORY MINIMUM PRISON TERM IN MONTHS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	59246	70.6	74.3	74.3
	1	17	.0	.0	74.3
	3	16	.0	.0	74.3
	6	3	.0	.0	74.3
	12	157	.2	.2	74.5
	22	1	.0	.0	74.5
	24	810	1.0	1.0	75.5
	36	44	.1	.1	75.6
	40	2	.0	.0	75.6
	42	1	.0	.0	75.6
	48	10	.0	.0	75.6
	60	8168	9.7	10.2	85.8
	61	1	.0	.0	85.8
	72	9	.0	.0	85.8
	74	1	.0	.0	85.8
	84	482	.6	.6	86.4
	85	1	.0	.0	86.4
	108	1	.0	.0	86.4
	120	8383	10.0	10.5	96.9
	130	1	.0	.0	96.9
	140	1	.0	.0	97.0
	144	7	.0	.0	97.0
	167	1	.0	.0	97.0
	168	1	.0	.0	97.0
	180	1189	1.4	1.5	98.5
	204	20	.0	.0	98.5
	240	752	.9	.9	99.4
	264	15	.0	.0	99.4
	300	65	.1	.1	99.5
	324	1	.0	.0	99.5
	360	34	.0	.0	99.6
	384	59	.1	.1	99.6
	420	17	.0	.0	99.7
	480	7	.0	.0	99.7
	504	7	.0	.0	99.7
	540	3	.0	.0	99.7
	564	2	.0	.0	99.7
	600	5	.0	.0	99.7
	624	2	.0	.0	99.7
	660	2	.0	.0	99.7
	684	5	.0	.0	99.7
	720	4	.0	.0	99.7
	780	1	.0	.0	99.7
	864	1	.0	.0	99.7
	960	2	.0	.0	99.7
	984	7	.0	.0	99.7
	1020	1	.0	.0	99.7
	1260	1	.0	.0	99.7
	1284	2	.0	.0	99.7
	1320	1	.0	.0	99.7
	1440	1	.0	.0	99.7
	1500	1	.0	.0	99.7
	1560	1	.0	.0	99.7
	2184	1	.0	.0	99.7
	2220	1	.0	.0	99.7
	2484	1	.0	.0	99.7
	3660	2	.0	.0	99.7
	3960	2	.0	.0	99.7
	8820	2	.0	.0	99.7
	Life	207	.2	.3	100.0
	Total	79788	95.0	100.0	
Missing	System	4159	5.0		
Total		83947	100.0		

ManMin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	63405	75.5	75.5	75.5
	1	20542	24.5	24.5	100.0
	Total	83947	100.0	100.0	

Disposition

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	2724	3.2	3.2	3.2
	1.00	81217	96.7	96.8	100.0
	Total	83941	100.0	100.0	
Missing	System	6	.0		
Total		83947	100.0		

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TOTAL STATUTORY MINIMUM PRISON TERM IN MONTHS	79788	0	9996	52.37	512.928
Valid N (listwise)	79788				

Appendix D: Complete Output for Binary Logistic Regressions for 2012

Regression 1: Demographics vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	73397	97.1
	Missing Cases	2172	2.9
	Total	75569	100.0
Unselected Cases		0	.0
Total		75569	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
0	0
1	1

Classification Table[a,b]

Observed			Predicted		
			Disposition		Percentage Correct
			0	1	
Step 0	Disposition	0	0	2411	.0
		1	0	70986	100.0
	Overall Percentage				96.7

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	3.382	.021	26677.927	1	.000	29.443

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1125.642	8	.000
	Block	1125.642	8	.000
	Model	1125.642	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	20087.465[a]	.015	.061

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	28.644	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = 0		Disposition = 1		Total
		Observed	Expected	Observed	Expected	
Step 1	1	605	646.412	6735	6693.588	7340
	2	400	410.477	6940	6929.523	7340
	3	363	312.736	6977	7027.264	7340
	4	285	250.582	7055	7089.418	7340
	5	233	204.058	7105	7133.942	7338
	6	156	169.066	7184	7170.934	7340
	7	133	140.220	7153	7145.780	7286
	8	102	116.865	7238	7223.135	7340
	9	81	94.563	7309	7295.437	7390
	10	53	66.022	7290	7276.978	7343

Classification Table[a]

Observed			Predicted		
			Disposition		Percentage Correct
			0	1	
Step 1	Disposition	0	0	2411	.0
		1	0	70986	100.0
	Overall Percentage				96.7

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	YEARS	-.230	.014	288.480	1	.000	.794	.774	.816
	NEWRACE	.030	.019	2.502	1	.114	1.031	.993	1.070
	MONSEX	.261	.067	15.141	1	.000	1.298	1.138	1.480
	NEWEDUC	-.256	.013	391.065	1	.000	.774	.755	.794
	Custody	-.334	.053	39.800	1	.000	.716	.645	.794
	DISTRICT	.004	.001	23.583	1	.000	1.004	1.002	1.006
	TOTCHPTS	-.009	.004	5.266	1	.022	.991	.983	.999
	OFFTYPE2	.035	.003	181.253	1	.000	1.036	1.030	1.041
	Constant	4.571	.119	1482.835	1	.000	96.684		

a. Variable(s) entered on step 1: YEARS, NEWRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2.

Regression 2: Mandatory Minimum vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	73397	97.1
	Missing Cases	2172	2.9
	Total	75569	100.0
Unselected Cases		0	.0
Total		75569	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
0	0
1	1

Classification Table[a,b]

			Predicted		
			Disposition		Percentage Correct
	Observed		0	1	
Step 0	Disposition	0	0	2411	.0
		1	0	70986	100.0
	Overall Percentage				96.7

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	3.382	.021	26677.927	1	.000	29.443

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1337.984	9	.000
	Block	1337.984	9	.000
	Model	1337.984	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	19875.124[a]	.018	.072

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	44.120	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = 0		Disposition = 1		
		Observed	Expected	Observed	Expected	Total
Step 1	1	621	687.187	6719	6652.813	7340
	2	458	424.270	6882	6915.730	7340
	3	350	320.589	6991	7020.411	7341
	4	290	249.187	7050	7090.813	7340
	5	232	197.008	7114	7148.992	7346
	6	143	158.396	7198	7182.604	7341
	7	124	129.878	7216	7210.122	7340
	8	100	104.849	7240	7235.151	7340
	9	51	81.711	7277	7246.289	7328
	10	42	57.925	7299	7283.075	7341

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	YEARS	-.235	.014	296.272	1	.000	.791	.770	.812
	NEWRACE	.018	.019	.826	1	.364	1.018	.980	1.057
	MONSEX	.217	.067	10.432	1	.001	1.242	1.089	1.416
	NEWEDUC	-.253	.013	381.639	1	.000	.777	.757	.797
	Custody	-.184	.054	11.743	1	.001	.832	.749	.924
	DISTRICT	.003	.001	14.575	1	.000	1.003	1.002	1.005
	TOTCHPTS	-.014	.004	11.439	1	.001	.987	.979	.994
	OFFTYPE2	.021	.003	61.566	1	.000	1.021	1.016	1.026
	StatMin	-.687	.047	216.861	1	.000	.503	.459	.551
	Constant	5.062	.124	1665.140	1	.000	157.931		

a. Variable(s) entered on step 1: YEARS, NEWRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2, StatMin.

Regression 3: Mandatory Minimum in Months vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	73274	97.0
	Missing Cases	2295	3.0
	Total	75569	100.0
Unselected Cases		0	.0
Total		75569	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
0	0
1	1

Classification Table[a,b]

Observed			Predicted		
			Disposition		Percentage Correct
			0	1	
Step 0	Disposition	0	0	2394	.0
		1	0	70880	100.0
	Overall Percentage				96.7

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	3.388	.021	26582.179	1	.000	29.607

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1327.990	9	.000
	Block	1327.990	9	.000
	Model	1327.990	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	19761.826[a]	.018	.072

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	34.319	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = 0		Disposition = 1		Total
		Observed	Expected	Observed	Expected	
Step 1	1	642	678.350	6685	6648.650	7327
	2	393	399.092	6934	6927.908	7327
	3	363	303.647	6964	7023.353	7327
	4	277	243.435	7050	7083.565	7327
	5	218	198.257	7110	7129.743	7328
	6	146	163.986	7176	7158.014	7322
	7	131	137.328	7196	7189.672	7327
	8	108	113.434	7202	7196.566	7310
	9	68	91.517	7259	7235.483	7327
	10	48	64.953	7304	7287.047	7352

Classification Table[a]

			Predicted		
			Disposition		Percentage Correct
	Observed		0	1	
Step 1	Disposition	0	19	2375	.8
		1	27	70853	100.0
	Overall Percentage				96.7

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	YEARS	-.233	.014	288.741	1	.000	.792	.771	.814
	NEWRACE	.024	.019	1.518	1	.218	1.024	.986	1.063
	MONSEX	.247	.067	13.437	1	.000	1.280	1.122	1.460
	NEWEDUC	-.255	.013	380.958	1	.000	.775	.756	.795
	Custody	-.317	.053	35.343	1	.000	.728	.656	.808
	DISTRICT	.004	.001	17.883	1	.000	1.004	1.002	1.005
	TOTCHPTS	-.005	.004	1.360	1	.243	.995	.987	1.003
	OFFTYPE2	.034	.003	169.243	1	.000	1.035	1.029	1.040
	ManMinMonths	.000	.000	269.045	1	.000	1.000	1.000	1.000
	Constant	4.643	.120	1497.928	1	.000	103.854		

a. Variable(s) entered on step 1: YEARS, NEWRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2, ManMinMonths.

Appendix E: Complete Binary Logistic Regressions for 2011

Regression 1: Demographics vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	75171	100.0
	Missing Cases	0	.0
	Total	75171	100.0
Unselected Cases		0	.0
Total		75171	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 0	Disposition	.00	0	2530	.0
		1.00	0	72641	100.0
	Overall Percentage				96.6

a. Constant is included in the model.

b. The cut value is .500

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1278.300	8	.000
	Block	1278.300	8	.000
	Model	1278.300	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	20856.801[a]	.017	.066

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	33.173	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = .00		Disposition = 1.00		Total
		Observed	Expected	Observed	Expected	
Step 1	1	640	697.926	6877	6819.074	7517
	2	444	435.215	7062	7070.785	7506
	3	388	331.252	7129	7185.748	7517
	4	299	261.763	7219	7256.237	7518
	5	220	211.320	7297	7305.680	7517
	6	183	174.505	7334	7342.495	7517
	7	133	144.046	7382	7370.954	7515
	8	89	117.573	7437	7408.427	7526
	9	78	92.980	7439	7424.020	7517
	10	56	63.419	7465	7457.581	7521

Classification Table[a]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 1	Disposition	.00	0	2530	.0
		1.00	0	72641	100.0
	Overall Percentage				96.6

a. The cut value is .500

Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	YEARS	-.237	.013	317.593	1	.000	.789	.769	.810
	NEWRACE	.077	.020	15.335	1	.000	1.080	1.039	1.123
	MONSEX	.431	.070	38.057	1	.000	1.538	1.342	1.764
	NEWEDUC	-.216	.013	295.028	1	.000	.806	.786	.826
	Custody	-.312	.052	35.889	1	.000	.732	.661	.811
	DISTRICT	.007	.001	60.545	1	.000	1.007	1.005	1.008
	TOTCHPTS	-.002	.004	.223	1	.637	.998	.990	1.006
	OFFTYPE2	.041	.003	249.855	1	.000	1.042	1.037	1.047
	Constant	4.061	.114	1267.334	1	.000	58.005		

a. Variable(s) entered on step 1: YEARS, NEWRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2.

Regression 2: Categorical Mandatory Minimum vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	75171	100.0
	Missing Cases	0	.0
	Total	75171	100.0
Unselected Cases		0	.0
Total		75171	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 0	Disposition	.00	0	2530	.0
		1.00	0	72641	100.0
	Overall Percentage				96.6

a. Constant is included in the model.

b. The cut value is .500

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1457.049	9	.000
	Block	1457.049	9	.000
	Model	1457.049	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	20678.052[a]	.019	.075

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	40.835	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = .00		Disposition = 1.00		Total
		Observed	Expected	Observed	Expected	
Step 1	1	665	728.849	6843	6779.151	7508
	2	485	450.536	7032	7066.464	7517
	3	380	336.608	7137	7180.392	7517
	4	312	261.567	7205	7255.433	7517
	5	221	206.053	7296	7310.947	7517
	6	140	165.300	7387	7361.700	7527
	7	129	133.445	7388	7383.555	7517
	8	80	106.510	7436	7409.490	7516
	9	72	83.312	7445	7433.688	7517
	10	46	57.820	7472	7460.180	7518

Classification Table[a]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 1	Disposition	.00	0	2530	.0
		1.00	0	72641	100.0
	Overall Percentage				96.6

a. The cut value is .500

Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	YEARS	-.241	.013	325.644	1	.000	.786	.765	.806
	NEWRACE	.069	.020	12.093	1	.001	1.072	1.031	1.114
	MONSEX	.397	.070	32.261	1	.000	1.487	1.297	1.706
	NEWEDUC	-.216	.013	296.238	1	.000	.805	.786	.825
	Custody	-.185	.053	12.339	1	.000	.831	.750	.922
	DISTRICT	.006	.001	46.375	1	.000	1.006	1.004	1.007
	TOTCHPTS	-.005	.004	1.592	1	.207	.995	.987	1.003
	OFFTYPE2	.027	.003	100.025	1	.000	1.027	1.022	1.033
	ManMin	-.623	.046	182.215	1	.000	.536	.490	.587
	Constant	4.525	.120	1423.191	1	.000	92.252		

a. Variable(s) entered on step 1: YEARS, NEWRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2, ManMin.

Regression 3: Mandatory Minimum in Months vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	75171	100.0
	Missing Cases	0	.0
	Total	75171	100.0
Unselected Cases		0	.0
Total		75171	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 0	Disposition	.00	0	2530	.0
		1.00	0	72641	100.0
	Overall Percentage				96.6

a. Constant is included in the model.

b. The cut value is .500

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1572.997	9	.000
	Block	1572.997	9	.000
	Model	1572.997	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	20562.104[a]	.021	.081

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	30.546	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = .00		Disposition = 1.00		Total
		Observed	Expected	Observed	Expected	
Step 1	1	715	747.715	6802	6769.285	7517
	2	427	422.265	7090	7094.735	7517
	3	387	320.465	7130	7196.535	7517
	4	270	253.559	7247	7263.441	7517
	5	210	205.257	7307	7311.743	7517
	6	174	169.773	7343	7347.227	7517
	7	131	140.754	7386	7376.246	7517
	8	84	115.263	7436	7404.737	7520
	9	82	91.645	7434	7424.355	7516
	10	50	63.305	7466	7452.695	7516

Classification Table[a]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 1	Disposition	.00	33	2497	1.3
		1.00	49	72592	99.9
	Overall Percentage				96.6

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	YEARS	-.236	.013	310.055	1	.000	.790	.769	.811
	NEWRACE	.070	.020	12.527	1	.000	1.073	1.032	1.115
	MONSEX	.414	.070	34.987	1	.000	1.513	1.319	1.736
	NEWEDUC	-.218	.013	294.183	1	.000	.804	.785	.825
	Custody	-.287	.052	29.953	1	.000	.751	.677	.832
	DISTRICT	.006	.001	56.129	1	.000	1.006	1.005	1.008
	TOTCHPTS	.003	.004	.493	1	.483	1.003	.995	1.011
	OFFTYPE2	.038	.003	214.797	1	.000	1.039	1.034	1.044
	STATMIN	.000	.000	379.628	1	.000	1.000	1.000	1.000
	Constant	4.143	.115	1294.473	1	.000	63.004		

a. Variable(s) entered on step 1: YEARS, NEWRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2, STATMIN.

Appendix F: Complete Binary Logistic Regressions for 2010

Regression 1: Demographics vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	72581	100.0
	Missing Cases	0	.0
	Total	72581	100.0
Unselected Cases		0	.0
Total		72581	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

Observed			Predicted		
			Disposition		Percentage Correct
			.00	1.00	
Step 0	Disposition	.00	0	2556	.0
		1.00	0	70025	100.0
	Overall Percentage				96.5

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	3.310	.020	27024.289	1	.000	27.396

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1220.858	8	.000
	Block	1220.858	8	.000
	Model	1220.858	8	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	20906.134[a]	.017	.063

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	48.754	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = .00		Disposition = 1.00		
		Observed	Expected	Observed	Expected	Total
Step 1	1	615	691.454	6643	6566.546	7258
	2	461	431.333	6797	6826.667	7258
	3	375	330.491	6883	6927.509	7258
	4	316	264.753	6942	6993.247	7258
	5	250	216.801	7013	7046.199	7263
	6	176	180.994	7080	7075.006	7256
	7	131	150.165	7127	7107.835	7258
	8	107	123.521	7152	7135.479	7259
	9	75	97.510	7135	7112.490	7210
	10	50	68.978	7253	7234.022	7303

Classification Table[a]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 1	Disposition	.00	0	2556	.0
		1.00	0	70025	100.0
	Overall Percentage				96.5

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	YEARS	-.227	.013	305.707	1	.000	.797	.777	.817
	MONRACE	-.132	.015	73.671	1	.000	.876	.850	.903
	MONSEX	.305	.068	19.909	1	.000	1.357	1.187	1.551
	NEWEDUC	-.221	.012	326.863	1	.000	.801	.782	.821
	Custody	-.396	.052	57.060	1	.000	.673	.607	.746
	DISTRICT	.008	.001	98.627	1	.000	1.008	1.007	1.010
	TOTCHPTS	-.002	.004	.275	1	.600	.998	.991	1.005
	OFFTYPE2	.034	.003	173.439	1	.000	1.034	1.029	1.039
	Constant	4.487	.107	1756.968	1	.000	88.832		

a. Variable(s) entered on step 1: YEARS, MONRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2.

Regression 2: Categorical Mandatory Minimums vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	72581	100.0
	Missing Cases	0	.0
	Total	72581	100.0
Unselected Cases		0	.0
Total		72581	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

Observed			Predicted		
			Disposition		Percentage Correct
			.00	1.00	
Step 0	Disposition	.00	0	2556	.0
		1.00	0	70025	100.0
	Overall Percentage				96.5

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	3.310	.020	27024.289	1	.000	27.396

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1432.611	9	.000
	Block	1432.611	9	.000
	Model	1432.611	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	20694.381[a]	.020	.074

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	71.992	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = .00		Disposition = 1.00		
		Observed	Expected	Observed	Expected	Total
Step 1	1	650	733.492	6608	6524.508	7258
	2	485	446.908	6773	6811.092	7258
	3	370	336.011	6889	6922.989	7259
	4	331	263.474	6927	6994.526	7258
	5	257	209.615	7001	7048.385	7258
	6	154	169.550	7104	7088.450	7258
	7	118	137.609	7140	7120.391	7258
	8	95	111.057	7163	7146.943	7258
	9	58	87.102	7200	7170.898	7258
	10	38	61.182	7220	7196.818	7258

Classification Table[a]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 1	Disposition	.00	0	2556	.0
		1.00	0	70025	100.0
	Overall Percentage				96.5

a. The cut value is .500

Variables in the Equation

								95% C.I.for EXP(B)	
		B	S.E.	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	YEARS	-.231	.013	312.408	1	.000	.793	.773	.814
	MONRACE	-.130	.015	71.039	1	.000	.878	.852	.905
	MONSEX	.256	.069	13.904	1	.000	1.291	1.129	1.477
	NEWEDUC	-.221	.012	325.548	1	.000	.802	.783	.821
	Custody	-.260	.053	23.872	1	.000	.771	.695	.856
	DISTRICT	.007	.001	76.767	1	.000	1.007	1.006	1.009
	TOTCHPTS	-.005	.004	2.112	1	.146	.995	.987	1.002
	OFFTYPE2	.018	.003	43.893	1	.000	1.018	1.012	1.023
	ManMin	-.678	.046	215.453	1	.000	.508	.464	.556
	Constant	4.989	.112	1986.732	1	.000	146.860		

a. Variable(s) entered on step 1: YEARS, MONRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2, ManMin.

Regression 3: Mandatory Minimum Sentence in Months vs. Disposition

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	72461	99.8
	Missing Cases	120	.2
	Total	72581	100.0
Unselected Cases		0	.0
Total		72581	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
.00	0
1.00	1

Classification Table[a,b]

Observed			Predicted		
			Disposition		Percentage Correct
			.00	1.00	
Step 0	Disposition	.00	0	2548	.0
		1.00	0	69913	100.0
	Overall Percentage				96.5

a. Constant is included in the model.

b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	3.312	.020	26966.136	1	.000	27.438

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	1473.934	9	.000
	Block	1473.934	9	.000
	Model	1473.934	9	.000

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	20591.482[a]	.020	.077

a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	45.082	8	.000

Contingency Table for Hosmer and Lemeshow Test

		Disposition = .00		Disposition = 1.00		
		Observed	Expected	Observed	Expected	Total
Step 1	1	677	737.941	6569	6508.059	7246
	2	440	419.383	6806	6826.617	7246
	3	368	320.308	6878	6925.692	7246
	4	313	256.165	6933	6989.835	7246
	5	220	208.796	6999	7010.204	7219
	6	173	175.527	7073	7070.473	7246
	7	136	145.935	7110	7100.065	7246
	8	106	120.185	7140	7125.815	7246
	9	70	96.018	7181	7154.982	7251
	10	45	67.744	7224	7201.256	7269

Classification Table[a]

			Predicted		
			Disposition		Percentage Correct
	Observed		.00	1.00	
Step 1	Disposition	.00	24	2524	.9
		1.00	24	69889	100.0
	Overall Percentage				96.5

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	YEARS	-.227	.013	300.014	1	.000	.797	.777	.818
	MONRACE	-.132	.016	72.407	1	.000	.876	.850	.903
	MONSEX	.309	.069	20.073	1	.000	1.361	1.190	1.558
	NEWEDUC	-.223	.012	327.392	1	.000	.800	.781	.820
	Custody	-.380	.053	51.733	1	.000	.684	.617	.758
	DISTRICT	.008	.001	90.907	1	.000	1.008	1.006	1.010
	TOTCHPTS	.003	.004	.712	1	.399	1.003	.996	1.011
	OFFTYPE2	.031	.003	148.114	1	.000	1.032	1.026	1.037
	STATMIN	.000	.000	328.133	1	.000	1.000	1.000	1.000
	Constant	4.549	.108	1773.955	1	.000	94.559		

a. Variable(s) entered on step 1: YEARS, MONRACE, MONSEX, NEWEDUC, Custody, DISTRICT, TOTCHPTS, OFFTYPE2, STATMIN.

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