Title
MONETARY SANCTIONS IN FEDERAL CRIMINAL SENTENCING: SIGNIFICANCE, PRISON, AND POLICY

Author
Martin, Karin Danielle

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MONETARY SANCTIONS IN FEDERAL CRIMINAL SENTENCING: SIGNIFICANCE, PRISON, AND POLICY

by

Karin Danielle Martin

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Committee in charge:
Professor Robert J. MacCoun, Chair
Professor Henry Brady
Professor Jack Glaser
Professor Frank Zimring

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Abstract

This series of papers investigates money as a criminal sanction using a variety of approaches. Paper 1, "Money As A Criminal Penalty: Its Uses and Meanings," explores the theoretical underpinnings and empirical use of monetary penalties, providing a thorough assessment of the complexities entailed in the fair and efficient use of these sanctions. Paper 2, "Substitute & Supplement: The Multiple Functions of Monetary Penalties in Federal Sentencing," uses an innovative approach of focusing on severity and likelihood for both sanctions. The results of hierarchical linear modeling suggest that monetary penalties are used as both a substitute and supplement to incarceration. The main contribution is a more accurate characterization of the relationship between prison and monetary penalties. Paper 3, "Assessing the Effect of Booker on Monetary Penalties and Prison," explores the effect of the Supreme Court ruling in *United States v. Booker* (2005) on the use of monetary penalties and incarceration in federal sentencing. This analysis uses a matching algorithm to create comparison groups with more balanced observable characteristics. The result is consistent evidence that race and gender continue to be quite influential in sentencing outcomes and that greater post-*Booker* judicial discretion is associated with more volatility in the use of monetary penalties than prison. By providing a thorough, multi-faceted, and methodologically rigorous account of monetary penalties, these papers significantly advance our understanding of a ubiquitous and complex criminal sanction.

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MONEY AS A CRIMINAL PENALTY: ITS USES AND MEANINGS

Abstract

Monetary penalties are a complex and problematic criminal sanction. In terms of history, theory, and empirics, their use (objective assessment) and meaning (subjective interpretation) is unclear and inconsistent. Addressing injustice provides the motivation for clarifying the use and meaning of monetary penalties. Normative considerations, ranging from budget pressure to increase revenue to negative collateral consequences of monetary penalties, make the need for clarity urgent. The fundamental qualities of monetary penalties include an essential incommensurability of money and harm and fluctuating condemnation. Theory and legislation help explain the status quo of monetary penalties, although they provide different accounts of the relationship between prison and monetary penalties. This study of monetary sanctions provides the foundation required both to advance scholarship and to improve sentencing policy. By providing a thorough account of the use and meaning of monetary penalties, this discussion significantly improves our understanding of a ubiquitous and complicated criminal sanction.

INTRODUCTION

What Are Monetary Penalties?

Monetary penalties are any fines, restitution, or other financial obligations that accompany felony convictions. This deprivation of property, of liquid assets, is a cornerstone of criminal sentencing in the US.[1] These sanctions are used at every level of government and are increasing in prevalence (Bannon et al, 2010). Yet, as the examples below suggest, monetary penalties convey remarkably ambiguous messages to the defendant and others. This ambiguity creates pitfalls for both normative and descriptive analysis of their uses and their consequences.

Leonard Armstrong is a destitute, mentally ill man who pleaded "no contest" to a murder charge in Ohio. He was sentenced to life in prison in addition to two $300 fines (Legeza, 2012). Roger and Myrna Bird lived in the exclusive, but environmentally sensitive, West Palm Beach area of Florida. They were fined $1.65 million for illegally removing 100 mangrove trees from their property, but were not sentenced to prison (DiPaolo, 2011). Michael Clair, the "Paperclip Dentist" of Massachusetts, substituted cheap paperclips for surgical steel in oral surgeries (Butterworth, 2010). Among his victims, was a teenage patient whose tooth turned black and had to be removed. The dentist's jail sentence was reduced from 2 years to less than a year, and he was ordered to pay restitution to the state and two of his victims. Note the factors in flux in these cases: crime type and severity, offender wealth, competence, motive that is monetary or not, and type and severity of sanction. In particular, note that although all of the offenders were ordered to pay either a fine or restitution, the amounts and payees (victim or state) vary dramatically.

The sanction for the most violent crime (murder) was of penultimate severity – life in prison. If monetary sanctions are meant to be punitive, then does a fine contribute to the punitiveness of an endless prison sentence? Especially because the fine is relatively small, it begs the question of having any fine at all in this case. Conversely, the wealthy offenders of a non-violent crime received a sizable monetary sanction and avoided prison. Does this amount to paying a price to offend? If so, is the monetary sanction simply a means test for the privilege of removing trees? The sentencing judge in the case of the dentist whose efforts to cut costs caused bodily harm to minors ordered a monetary sanction, in addition to halving the prison sentenced. Is this an indication of a tacit (or explicit) trade-off between prison and monetary sanctions at the discretion of the judge? If so, then it raises questions of both equity and efficiency in criminal justice policy. Indeed, what we think about the meaning of monetary sanctions likely varies in each of these situations.

The meaning of monetary penalties varies because their use varies. "Use" is an objective assessment of the likelihood and severity of monetary penalties. "Meaning" is the subjective interpretation of what any given use connotes about the offense, offender, and/or victim. It refers to the function or purpose of the monetary penalty – particularly as the penalty relates to the use of incarceration. As the examples above highlight, in practice, the interrelationships between monetary penalties and incarceration are complex and variable. Consider the two dimensions of each sanction: likelihood and severity. Likelihood refers to whether the sanction is applied or not. Severity is the magnitude of the sanction.[2] Each sanction varies along both dimensions, with different implications

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[1] This paper does not address the myriad "fees" that arise from civil infractions nor does it address punitive damages; although, much of the argument presented here applies to fees and punitive damages as well.

[2] Prison severity is length of sentence, typically measured in months. Monetary penalty severity is the dollar amount of fines and/or restitution.

for theory and practice. If monetary sanctions are offsetting prison likelihood, then they are a substitute for incarceration in the economic sense. If monetary sanctions offset prison severity, then offender wealth may have undue influence on sentencing outcomes. Indeed, are monetary penalties more susceptible to influence by extralegal factors in general – or should they be? Two dimensions (likelihood and severity) being in flux for two types of sanctions (monetary penalties and incarceration) creates a plethora of different meanings for each sanction. The overarching goal of this project is to determine the actual use of monetary penalties and discern their meaning.

The motivation for doing so arises from: empirical assessments of monetary penalty use, questions raised but not fully answered by theory, the impetus to improve policy, and a variety of pressing normative considerations – each of which is described in Part I. In Part II, I investigate the fundamental qualities of monetary penalties as elucidated by economic, psychological, and legal theories. In Part III, I explain the historical, theoretical, and legislative precursors to the status quo of monetary penalty use. I show that each antecedent provides for different potential relationships between monetary penalties and prison, while empirical studies provide little clarification. I conclude with recommendations for improving policy for this complex and ubiquitous criminal sanction.

PART I: MONETARY PENALTIES ARE PROBLEMATIC

Why is understanding the use and meaning of monetary penalties important? The most compelling answer: injustice. There is certainly an argument to be made based simply on evidence of unwarranted race, gender, and other extralegal factor disparities. However, taking an even broader view of "injustice" highlights the need to refine sentencing policy at every level of government, in addition to some basic theories of punishment. The lack of coherence in how monetary penalties are used and what they mean put these penalties at risk of being inherently unjust. A just criminal sanction must be applied in a fair and equitable manner, yet fairness and equity require coherence. Improved coherence requires a better understanding of how these sanctions are used and what they mean. This section provides an account of how monetary penalties are problematic on several fronts. First, empirical evidence raises critical questions about the just use of monetary penalties. Second, monetary penalties exceed the scope of relevant economic theories. Third, the current lack of clarity about monetary penalties is an obstacle to improved sentencing policy. Finally, the prevailing use of monetary penalties raises a number of normative considerations – adding urgency to the present task.

Empirical evidence of how monetary penalties are actually used raises questions about how these penalties *should* be used. For example, there is evidence of unwarranted disparities on the basis of extralegal factors such as race, gender, education, and socio-economic realities. These factors are explicitly excluded from consideration in the federal sentencing guidelines. Nevertheless, they remain significant predictors of the likelihood and severity of both prison sentences and monetary sanctions. To preview the analysis in subsequent papers, I examine the period after *US v. Booker* (2005) made the sentencing guidelines advisory.[3] I also control for extensive criminological factors such as offense type and severity, criminal history, presumptive sentence, as well as extralegal factors like education, age, number of dependants and departure status (whether or not the sentence fell within the range mandated by the sentencing guidelines). The analysis shows that the odds that a female offender of white collar crimes will receive a monetary sanction are 133% than for a male

[3] Analysis based on 2002-2008 federal sentencing data maintained by ICPSR and hierarchical linear modeling using HLM software (Raudenbush and Bryk 2002). Full description of data and methods reported in Paper 2.

offender. For violent crimes, women's odds are 216% higher. The severity of monetary sanctions is higher for female offenders of white collar and violent crimes as well (56% to 139% as high). Black men and Latinos are less likely (28%-60%) to be assessed a monetary sanction than White men. The average sanction for Black men tends to be lower than for White men (46% lower) and Latino's are slightly higher (3%). An analysis of data collected pre- and post-Booker reveals that the change in the value of a prison month varies significantly by offender and offense characteristics. For example, it was -$833 for Black offenders and $2100 for fraud offenders. Overall, ethnicity, gender, and departure status become more influential predictors of monetary sanction use in the post-*Booker* era. This analysis raises the question of whether there is consistency and coherence in how sentencing judges use monetary penalties. Is the influence of extralegal factors indicative of a theory of punishment in which monetary penalties are used to increase or offset the severity of a prison sentence based on individual characteristics?

A similar question arises from empirical assessments of monetary penalty use indicating that these sanctions negatively affect successful post-incarceration reentry. For example, Bannon et al (2010) find that criminal justice debt is ubiquitous with excessive attendant harms. In another study, Harris, Evans, Beckett (2009) conduct interviews with 50 people who have at least one felony conviction, in addition to a small number of county clerks and superior court judges. They conclude that there are many negative consequences of being assessed a monetary sanction that may exceed the intended level of punishment. Two of the co-authors later argue that "[Monetary sanctions] tend to hinder reintegration into society post-incarceration and raise numerous issues of equity and justice" (Beckett & Harris 2011). Although there is a Supreme Court ruling (*Bearden v. Georgia*, 461 U.S. 660, 1983[4]) against failure to pay being the basis of probation revocation or re-incarceration, there is evidence that inability to pay is indeed associated with expanded custody (ACLU 2010). Such evidence illustrates the potential for net-widening in monetary sanctions. Some jurisdictions allow offenders to "choose" prison instead of paying a monetary sanction. Yet, is it unconscionable to ask a person to choose between his liberty and his means to live?[5] Similarly, are monetary penalties disproportionately expanding punishment relative to the precipitating offense? These questions point to the problematic nature of monetary penalties as revealed by empirical assessments of their use.

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[4] "A sentencing court cannot properly revoke a defendant's probation for failure to pay a fine and make restitution, absent evidence and findings that he was somehow responsible for the failure or that alternative forms of punishment were inadequate to meet the State's interest in punishment and deterrence, and hence, here the trial court erred in automatically revoking petitioner's probation and turning the fine into a prison sentence without making such a determination." Pp. 461 U. S. 664-674.
(a) If a State determines a fine or restitution to be the appropriate and adequate penalty for the crime, it may not thereafter imprison a person solely because he lacked the resources to pay it. *Williams v. Illinois,* 399 U. S. 235; *Tate v. Short,* 401 U. S. 395. If the probationer has willfully refused to pay the fine or restitution when he has the resources to pay or has failed to make sufficient bona fide efforts to seek employment or borrow money to pay, the State is justified in using imprisonment as a sanction to enforce collection. But if the probationer has made all reasonable bona fide efforts to pay the fine and yet cannot do so through no fault of his own, it is fundamentally unfair to revoke probation automatically without considering whether adequate alternative methods of punishing" Page 461 U. S. 661;
http://supreme.justia.com/cases/federal/us/461/660/

[5] Nonetheless, when given the option, some people actually prefer to be incarcerated to being assessed a monetary sanction (Nieto 2006; Wood & May 2003).

Another complication of monetary penalties is that they do not readily fit into the constraints of relevant theory. As explained at length in Part II, these theories tend to focus on the efficient use of monetary penalties in an economic sense. The typical approach is that monetary penalties are the primary option for a substitute to prison. In practice, though, monetary penalties are often used in conjunction to prison and there are other non-incarceration alternatives that are in widespread use (e.g. community service, probation, and electronic monitoring). Moreover, this economic approach is not well-suited for grappling with disparities or unintended consequences, as it emphasizes the *use* and not the effect of monetary penalties. A clearer accounting of the actual role of monetary penalties in sentencing would help make theory more applicable, supporting the development of the testable hypotheses that are necessary to assess and improve sentencing policy.

Improving policy is another domain in which an unclear understanding about the use and meaning of monetary penalties is problematic. Effective policy has clear goals and measurable criteria for achieving those goals. Yet, the interaction of legislation and judicial discretion facilitate monetary penalties being used to achieve numerous, often competing, goals. For example, if these sanctions are indeed sufficiently punitive to replace a prison sentence, then sentencing guidelines that mandate their use as a supplement to incarceration are inherently inefficient in an economic sense. On the other hand, monetary penalties could be a punishment meant to be an avenue for judicial discretion. In which case, any assessment of the effect of legislation that expands or limits judicial discretion should include an analysis of the law's effect on monetary penalty use. A lack of clarity about how monetary penalties are used, should be used, and what they mean is an obstacle to advancing more equitable and efficient sentencing policy.

Thus far, that monetary penalties are problematic is evidenced by: empirical assessments showing the influence of extralegal factors in their use and their potential for causing negative collateral consequences; the inapplicability of relevant theory to their use; and, a lack of clarity that is a hindrance to sound policy analysis and development. Normative concerns are the other main grounds on which monetary penalties are problematic. The depth and breadth of these concerns add urgency to clarifying the use and meaning of monetary penalties.

The most important normative considerations pertain to state utility, enforcement, punitiveness, and complexity. For one, budget deficits at every level of government is increasing the incentive for a fundamental shift in the emphasis of monetary penalties. The traditional conception of monetary penalties focuses on their effect on the offender (*dis*utility); however, budget crises have led to a greater focus on how penalties provide the state with revenues (utility). Basically, putting the state or the court in position to make trade-offs between assessing and collecting monetary penalties on the one hand, or devoting resources to any other law-enforcing or adjudicating task, on the other, has enormous potential to corrupt the intention and function of these sanctions.

The need to make such trade-offs has the capacity to distort the proper functioning of both goals – the punishment of offenders and the collection of revenues. "It is axiomatic that the core functions of our government are supported from basic and general tax revenues. Government exists and operates for the common good based upon a common will to be governed, and the expense thereof is borne by general taxation of the governed." (Conference of State Court Administrators, n.d.) Yet, as an example, the California Legislature has been diverting money from the State Penalty Fund (the destination of fine and fee payments) to the General Fund for the past 20 years (Nieto 2006). At risk is either an intentional or an unwitting drift of mandate from punishment to profit. It is conceivable that cities, state, or counties would prioritize cases with potential revenue (e.g. enforcing civil fines, collecting payments, etc.) over tasks with clear costs (e.g. testing rape kits, conducting DNA analysis, etc.). It may be even more problematic in a local context wherein court fees are used to support the work of the court responsible for assessing and collecting the fees in the first place. Evidence that this is indeed taking place prompted the Conference of State Court

Administrators to recommend that "[t]he proceeds from fees, costs and fines should not be earmarked for the direct benefit of any judge, court official, or other criminal justice official who may have direct or indirect control over cases filed or disposed in the judicial system" (Conference of State Court Administrators, n.d., p. 11). This shift in emphasis from punishing the offender to potentially benefitting the state is a major normative consideration motivating the need for a clear understanding of the use and meaning of monetary penalties.

Another normative concern that makes monetary penalties problematic is the issue of enforcement. In a 2005 report, the Government Accountability Office finds that only 7% of ordered restitution had been paid by white-collar fraud offenders ($40 million paid of $568 million ordered) and that there were "minimal, if any, apparent negative consequences" for non-payment (GAO 2005, p. 4). Monetary sanctions are meant to both punish and deter. But in order to do so, the terms of the sanction must be fulfilled – that is, the fine or restitution must actually be paid. If it is not, then what is the real purpose of these sanctions?

One of the more complicated normative considerations is how punitive monetary penalties are, for which there is conflicting evidence. If you ask the general public, these sanctions are seen as appropriate and acceptable for some offenses but not others – often for property crimes but not violent crimes (e.g. Gromet & Darley, 2009). However, most of these studies use a "fines as alternative to prison" paradigm. Available evidence indicates that the public prefers fines to incarceration for property crimes but not for violent crimes (e.g. Doob & Marinos 1995). Yet, preferences for fines is not as closely associated with the severity of the offense. Even when the property involved in an offense has a large value, there is evidence people still prefer monetary sanctions to incarceration and the difference in preferences for prison over monetary sanctions for violent crimes may arise from prison's ability to incapacitate (Doob & Marinos 1995).[6] If you ask actual offenders, monetary sanctions are seen as punitive, but a significant portion would actually prefer prison or jail time due to the unknowns involved with monetary sanctions. Offenders express concerns with ability to pay and complicated collections processes (Petersilia & Deschenes, 1994). The influence of extralegal factors on preferences for alternative sanctions, such as monetary penalties, further complicates the issue. At least one study has found that Black probationers rate alternative sanctions as being more punitive than do White probationers and that a higher proportion of Black probationers would refuse an alternative sanction, instead choosing prison (Wood & May 2003). Another study finds that women rate alternative sanctions as less punitive than men do and are more willing to participate in them (Wood and Grasmick 1999). The lack of consistency in assessments of their punitive capacity contribute to monetary penalties being a troublesome sanction.

A final problematic normative consideration is the fact that monetary sanctions are both extraordinarily complex and ubiquitous. For example, according to Nieto (2006), in California, offenders can be assessed any of 269 separate court fines, fees, forfeitures, surcharges and penalty assessments as codified in 16 different statutes. The legislature sets the fines for a particular civil and criminal offenses and these monies are rendered to the state. These do not include the variety of fines and fees assessed by local governments. A "penalty assessment" is typically imposed on fines – essentially it is a tax on a fine. For example, the basic rate the state and counties assess is $10 for every $10 in base fines. Then, the court can levy and additional $7 for every $10 in base fines. The revenue from penalty assessments is retained by cities and counties. On average, offenders pay more than 240% of their original base fine. As others observe, "The institutionalization of this new debt

[6] Interestingly, the salience of the cost of prison did not have a significant effect on the findings.

regime is manifest not only in the organizational differentiation involving fees and fines (as described previously) but also in its—for lack of a better expression—growing normativity. Fees and fines, simply put, have become routine" (Katzenstein & Nagrecha 2011). This "growing normativity" makes monetary penalties very problematic, especially in the context of decreasing government budgets.

In sum, numerous normative considerations provide urgency for clarifying how monetary penalties are used and what they mean. The punitive function of monetary penalties is at risk of being overshadowed by the value to the state of revenue from monetary penalties. The lack of compliance with and enforcement of monetary penalties raises serious questions of effectiveness. The conflicting evidence of the punitive capacity of monetary penalties again raises questions of their purpose. Evidence that race and gender are predictors of this punitiveness further underscores the problems inherent in monetary penalty use. Finally, the current and increasing complexity and ubiquity of monetary penalties renders the need for improved clarity about their purpose quite pressing. The first step in clarifying the purpose of monetary penalties is to distill their essence into its fundamental components. To do so, in Part II, I explore relevant theoretical work in several domains.

PART II: THE FUNDAMENTAL QUALITIES OF MONETARY PENALTIES

Clarifying the purpose of monetary penalties requires their essential aspects be brought to light. Insights from economic, psychological, and legal theories of meaning are useful for this task. A fruitful starting point is a discussion of what monetary penalties are *not*. I thus begin this discussion by arguing that there are essential differences between civil penalties and criminal monetary sanctions. I then summarize prior scholarship explaining the difference between sanctions and prices. The difference between the two raises the issue of condemnation. Do monetary penalties sufficiently condemn? Understanding the capacity of monetary penalties to condemn is a critical component of clarifying their purpose. Similarly, the issue of incommensurability – or the fundamental inability to equate money and harm – is the crux of understanding monetary penalties and their use. I then discuss the difficulty of using monetary penalties rationally and coherently. A final complicating feature of monetary penalties is that they are subject to the myriad goals a sentencing judge may be trying to attain at any given time. By examining these nuanced characteristics and complexities of monetary penalties, I elucidate what these sanctions can, cannot, and should do.

There are several key differences between monetary sanctions for felony offenses and punitive penalties or damages for civil offenses. First, monetary sanctions are typically bounded by statute or sentencing guidelines and are assessed by a judge. In contrast, punitive damages often have no upper limit[7] and are determined by a jury. Insofar as it is problematic to use dollars to express outrage, this difficulty may be attenuated in monetary sanctions. Both the constraints on amounts and the source of the decision being a professional with frequent opportunities to develop overall coherence make monetary penalties substantively different from punitive damages. Similarly, the difference in payee may affect outcomes. Civil penalties go to the plaintiff, while monetary sanctions may go to the victim, but typically go to a general state fund (which may be a general fund for restitution). Perhaps most importantly, in civil cases, the jury is only responsible for a monetary

[7] Although they are anchored by plaintiff's request and some state legislation caps punitive damages.

penalty, whereas a judge in a criminal case must also make a determination about a prison sentence. The differences in bounds, assessor, and payee render monetary penalties quite distinct from civil punitive damages.

While the differences between civil penalties and monetary penalties may be clear, the differences between prices and sanctions are more complex. Robert Cooter's (1984) seminal article identifies a key distinction between prices and sanctions. As opposed to the then prevailing notions that law relied on either sanctions or on prices, Cooter argued that both are integral (Davies 2000). He proposes that prohibited acts require sanctions, while permissible acts require prices. The underlying idea being that sanctions increase with greater need for deterrence and prices increase with greater external harm (Cooter 1984, p. 1538). Concern with potential for monetary sanctions to function as prices is evidenced in much of the theory-oriented scholarship on these sanctions. It is most clearly articulated in writings on the expressive function of punishment. This line of scholarship is based on the notion that law has an effect on behavior independent of punishment and that punishment communicates social values (see Sunstein 1987, Dau-Schmidt 1990, Kahan 1996, Lessig 1998, and Pildes 1998 for discussions of criminal law). In this framework, treating fines as alternatives leads to a weighing of the virtue (or lack thereof) of "pricing" crime rather than sanctioning it. That is, scholars who consider fines as an alternative to prison fret that fines allow those with adequate means to essentially pay for the right to offend. The concern is that monetary sanctions communicate "condonation rather than condemnation" (Flanders 2007, p. 5), while prison is seen as having superior power to condemn: "[i]mprisonment, as a sanction, invariably condemn; fines, when viewed as prices, do not" (Kahan 1996, p. 621). In other words, the complexity of the difference between prices and sanctions relates to whether or not monetary penalties are sufficiently condemnatory.

A fundamental quality of monetary penalties is that the issue of condemnation is fully enmeshed with clarifying their use and meaning. The crux of which is whether they are or should be a substitute for prison, a supplement to prison, or a combination thereof. Importantly, each possibility could exist along the dimension of likelihood, severity, or both. There is some acknowledgement that monetary penalties do indeed sanction and condemn when they are used as a supplement to prison. "When combined with a term of imprisonment, no one doubts that fines convey moral disapproval. But when fines are used as a substitute for imprisonment, the message is likely to be that the offenders' conduct is being priced rather than sanctioned" (Kahan 1996, p. 621) And, "[w]hen combined with a term of imprisonment, no one doubts that fines are sanctions – that is, that they are being imposed for doing what's morally forbidden. But when fines are used as a substitute for imprisonment, then they look and feel more like prices" (Kahan 1997-8, p. 697). Notable within these quotes is the insinuation that the sanctioning and condemning power of monetary sanctions disappears when they are used as an alternative to incarceration. Different questions arise when monetary sanctions are used as a supplement to prison.

The power bestowed on monetary sanctions to convey condemnation when they are used as a supplement to prison raises the question of *how much* fines increase moral disapproval and/or suffering when they are added to prison terms. If a monetary sanction is added to a prison term, is the message that prison condemns insufficiently? If so, then it would seem that monetary sanctions do indeed have an independent power to condemn. Given this, the more interesting questions become: why do they condemn and how much? Beyond the "price vs. sanction" issue, the very essence of a monetary penalty involves the incommensurability of trade-offs that make us uncomfortable. The system of sanctions assigns a dollar amount to every type of offense: from assault and kidnapping to trespassing on federal land and "victimless" crimes like drug possession. The discomfort is clearest when a person's life or physical well-being is at stake: What is a human life worth? What is the value of a severe injury? But similar questions underlie other offenses as well.

Is there an amount a person can pay the state in order to use addictive narcotics? As these questions suggest, the issue of condemnation is both a basic and a highly variable aspect of monetary penalties. As a fundamental quality of monetary sanctions, condemnation is useful since it clarifies *how* the meaning and use of monetary penalties are mutually informing.

Another essential aspect of monetary penalties is that they consist of money. Acknowledging this obvious fact is important because it suggests that the meaning of monetary penalties is necessarily ambiguous, since the meaning of money itself is so mercurial. Although we use money to draw equivalencies between diverse goods and services and we use prices to "[take] social values into account" (Fiske 1992 p. 707), the meaning of money itself is not a constant. It is not a neutral "social object" devoid of meaning, either (Caruthers & Espeland 2002 p. 306). Indeed, some argue that "[m]oney brings with it a lot of moral baggage" (Caruthers & Espeland 2002 p. 302) and that it is "often segregated into different types, linked to different relationships and uses, without being integrated into a common, psychologically convertible currency" (Zelizer 1994, quoted in Fiske & Tetlock 1997). People are quite adept at transforming the meaning of money to imbue it with morality (Zelizar 1998), of which monetary penalties are the ultimate expression. Yet, the variability in what money means complicates the assigning of dollar values to criminal offenses.

At the core of making these dollar assignments lies the issue of incommensurability: How do you translate the moral outrage provoked by a criminal offense into a dollar amount? Incommensurability is another fundamental quality of monetary penalties. Scholars across various disciplines characterize incommensurability in similar ways. For example, Sunstein (1994) proposes that "[i]ncommensurability occurs when the relevant goods cannot be aligned along a single metric without doing violence to our considered judgments about how these goods are best characterized" (p. 796). Tetlock (2002) states that "[c]onstitutive incommensurability arises whenever treating values as commensurable subverts one of the values in the trade-off calculus"(p. 459). While much of the research focuses on other legal domains (e.g., regulatory policy, punitive damages in tort cases, and family law awards; see Braver, MacCoun, Ellman, 2008), the pertinent insight is that any effort to quantify the typically unquantifiable will be met with cognitive errors (Kahneman 1997), emotional distress (Tetlock 2002), moral cleansing (Tetlock et al 2000), and will result in specific inaccuracies in scaling (Sunstein 1994) and systemic incoherence (Sunstein et al 2001). The basis of the problem of incommensurability is a lack of a metric that can be reliably used across evaluative domains (Sunstein 1994; Tetlock 2000), as evidenced by attempts to quantify condemnation with money. In fact, it is arguable that monetary sanctions consist of "taboo trade-offs" as conceived by Fiske and Tetlock (1997) (see also Tetlock 2000; Tetlock et al 2000). A taboo trade-off is "any explicit mental comparison or social transaction that violates deeply-held normative intuitions about the integrity, even sanctity, of certain forms of relationship and of the moral-political values that derive from those relationships" (Fiske & Tetlock 1997, p. 256). Because monetary sanctions require equating a criminal offense with a dollar amount, the sacred domain of human life is brought into conflict with the secular domain of money.

Conflicting domains are the essence of incommensurability, as described in Alan Fiske's work on the domains of sociality. In his framework, there are four mutually exclusive cultural domains that are characterized by how groups, individual, or goods are differentiated from each other and valued. Communal Sharing entails equivalencies, Authority Ranking imposes ordinal ranking, Equality Matching uses intervals, and in Market Pricing ratios are meaningful (see Fiske 1991, 1992; Fiske & Tetlock 1997 for detailed explanations). For present purposes, this paradigm is especially useful for 1) identifying domains that are fundamental and incommensurable; and 2) explaining why incursions of one domain into another is problematic. Specifically, it illuminates the origins of

resistance to using money, which is the medium of Market Pricing (MP)[8] to value human life, harm, or suffering, which Americans typically believe to fall in the domain of Communal Sharing (CS).[9]

As Fiske & Tetlock (1997) explain, "Within the cultural domains in which each of the four respective models operate, people can usually make trade-offs without great difficulty; between the domains of disparate models, comparisons are problematic and ambiguous" (p. 258). As an example, they explain that we remove price tags from gifts because "*I don't want to think* about how much money you spent on me, and you don't want your gift valued in terms of its market cost. Love and friendship are demeaned when they are commoditized" (p. 276, first emphasis in original, second added). I propose that the analog is that harm is cheapened when it is equated with dollars.[10] That is, because, in Fiske and Tetlock's terms, there is no "common currency" for harm (CS) and money (MP), attempts to use dollars for that purpose make us uncomfortable.[11] Indeed, Fiske and Tetlock posit that using MP in CS is the domain incursion that should produce the greatest outrage (compared to shifts between other domains) (p. 287). This framework helps explain why it is difficult to equate money and harm, which is an intrinsic component of monetary penalties.

Even though monetary penalties entail assigning dollar amounts to criminal acts, dollars are not well-suited for expressing morality or moral outrage. A contributing factor is that "dollar values are psychometrically inferior," in part owing to our unfamiliarity with using them to express moral outrage (Kahneman 1997). While there tends to be consensus about the severity of crimes within a given category (e.g. robbing a bank is worse than stealing a wallet) and between categories (e.g. rape and murder are worse than robbing a bank), it is very difficult for people to commute assessments of morality into dollars (Sunstein et al 2001; Kahneman et al 1998; Braver, MacCoun, Ellman 2008). Juror decisions provide robust evidence of the complexity of using dollars to communicate moral judgments. In assessing punitive damages, the outcomes are highly susceptible to "anchoring" (Hastie, Schkade & Payne, 1997; Braver et al 2008), deliberation (Schkade et al 2000), and recipient (Anderson & MacCoun 1999). If using dollars to express morality were straightforward, we would expect little to no volatility in these judgments. Given our limited ability to make rational assessments of morality using money, in essence, monetary penalties require people to use money for a task that strains the capability of both people and money.

Equating harm or moral outrage and money entails solving a deeply flawed and difficult equation. Sunstein et al (2001) term the main source of this difficulty the "translation factor." They find evidence that punitive awards are predicted by this formula:

Punishment ($) = Outrageousness of Behavior × Severity of Harm × Translation Factor (p. 15)

The authors propose that this translation factor represents "the distinctive problem involved in translating a moral judgment of some kind into the terms made relevant by the legal system, such as monetary penalties, civil fines, or criminal punishment" (p. 3). They explain that because the factor is

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8 "Market pricing transactions are distinctive because they are based on proportionality. In bilateral MP transfers, people use either a price or an exchange rate" (Fiske 1992 p. 706).

9 They explain that "Americans take for granted, as a matter of the essential nature of persons, that human beings – especially with regard to their bodies, their sexuality, and their most basic needs – ultimately must relate to each other in terms of Communal Sharing" (Fiske & Tetlock 1997, pg. 278).

10 Since "to harm" can be considered the opposite of "to love."

11 Concern with MP encroaching on CS domains is not new: "…in the 1920s some observers ironically predicted that the national enthusiasm for rationalized housekeeping and budgeting would turn 'Home, Sweet Home,' into 'Home, Solvent Home,' with 'Ma and Pa a couple of cash registers, and the kiddies little adding machines'" (Zelizer 2002, p. 323 citing Karl Marx and Friedrich Engels, The Communist Manifesto (New York: International, 1971 [1848]), p. 11; Philips, "My Adventures as a Bold, Bad Budgeter," p. 15.)

not based in consensus nor in institutions, it is very problematic. "Even when people show coherent and consistent moral intuitions, they may show little consistency and coherence in translating those intuitions into numbers, such as dollars of fines or years in jail. Because of the translation problem, coherence fails: there is no guarantee that the relative severity of punishments administered by the system will still appear sensible, just, or fair when several punishments are considered together" (Sunstein et al 2001, p. 3). To be a just punishment, monetary penalties must be both rational and coherent. Yet, these authors highlight just how tenuous coherence is for monetary penalties. The idea of a "translation factor" suggests that there is a high probability of inconsistency in monetary sanction use across individuals and offenses. It also points to the lack of coherence as a fundamental quality of monetary penalties.

Finally, an essential complicating quality of monetary penalties is the multiplicity of goals involved in sanctioning. As Robbenolt, Darley, and MacCoun (2003) argue, in civil cases:

> "…legal decision makers may attempt to reach a verdict that is consistent with the available evidence. They may attempt to achieve distributive justice by assessing liability proportionally with fault or by allocating resources to each party in proportion to that party's need. They may seek to appropriately compensate plaintiffs, avoiding overcompensation and undercompensation. They may endeavor to effect deterrence in some measure, exact retribution or restore an appropriate balance of justice between the parties. Just as the law more generally may serve an expressive function, so too may jurors attempt to express symbolic values through their verdicts. In addition, jurors may show reactance in the face of blatant manipulative tactics by counsel, attempt to comply with economic logic and attempt to reconcile conflicting (intrajuror and interjuror) interpretations of the judge's instructions. At the same time, they may desire to 'finish the trial and go home; avoid fighting with other jurors; [and] avoid the wrath of the defendant, plaintiff, or community'" (p. 7)

Focal concerns theory proposes a similar framework for understanding judge's decisions about criminal sanctions, in which blameworthiness and community safety are both important factors (Kramer 2009). We should expect that an equally diverse set of considerations affect decisions about monetary penalties (Wenzel & Thielmann 2006; Gromet & Darley 2009). For example, judges may want to assess a sanction that is consistent with the sentencing guidelines, both punish and deter the offender, deviate from the guidelines to express more or less condemnation of the offense, heed legal counsel's recommendation for monetary sanction amount (or not), and/or conclude sentencing at a particular moment. Just as in civil cases, it is likely that the pursuit of any combination of these goals and others dominates decision-making in different ways at different times across different individuals. The variability of goals within individuals both complicates how money is used to express moral outrage and contributes to the incoherence in the system of sanctions. Robbenolt, MacCoun, and Darley's (2008) propose that "A sophisticated understanding of judicial decision making should explicitly incorporate the notion that judges simultaneously attempt to further numerous, disparate, and often conflicting, objectives." I suggest that this reasoning applies equally to the use of monetary sanctions within a guideline system (p. 28). This formulation provides a useful contrast to economic and expressive function theorists, since it suggests that monetary penalties may be simultaneously functioning as both a substitute *and* a supplement from the perspective of the sentencing judge.

From this discussion of the fundamental qualities of monetary penalties and the complexities of their use we can conclude that monetary penalties are meant to achieve an extremely difficult task. Unlike civil penalties and prices, the varying capacity of condemnation in monetary penalties complicates their use and meaning. Economic and legal theory indicate that condemnation changes depending on whether monetary penalties replace or supplement incarceration. Identifying which is preferable entails engaging in the highly problematic task of equating harm with dollars. Yet, scholars in several disciplines explain why harm and dollars are essentially incommensurate. Further

complicating matters is the fact that multiple sentencing goals likely affect a judge's decision both to impose a monetary penalty and her decision about its severity. Perhaps the ultimate complication is our limited ability to generate a coherent and rational concept of how money and harm interrelate. Like Sunstein et al (2001) I find that a lack of coherence in punishment is a "self-evident … form of injustice" (p. 3) requiring some type of social action. As these authors point out, because coherence is a key tenet of rationality (p. 10), evidence that our system of criminal sanctions is incoherent warrants close scrutiny and careful explanation.[12] Such scrutiny and explanation is the goal of Part III, where I explore the antecedents to the status quo of monetary penalty use.

PART III: EXPLAINING THE STATUS QUO

If monetary penalties may or may not sufficiently condemn an offense, if equating money and harm is uncomfortable at best and impossible at worst, and if judges are using monetary penalties to achieve different goals at different times, then we should certainly ask why monetary penalties are codified at every level of government. Moreover, clarifying the use and meaning of monetary penalties requires investigating their various possible relationships with prison along the dimensions of both likelihood and severity. There are several prominent – and often competing – explanations for how the two sanctions interrelate. Historically, monetary penalties have been treated as an alternative to prison. In contrast, theory treats these sanctions as a substitute to prison, while legislation generally codifies their use as a supplement to prison. Meanwhile, the actual use of monetary penalties raises more questions, rather than supporting any single claim.

To assess the various explanations, the remainder of this paper proceeds as follows. First, I summarize the origins of monetary sanctions' current prevalence and form. Next, I examine economic theory, which treats monetary sanctions as a substitute for incarceration, with a near exclusive focus on fines as a substitute for prison. I also describe the theory's flawed assumption that fines are socially costless (i.e. not having the significant administrative, capital, and resource costs of prison). My review of federal legislation reveals that monetary penalties are largely treated as a supplement to incarceration, but may be prescribed as a substitute as well. I then examine two aspects of legislation as they relate to monetary penalty use: the importance of shifts in judicial discretion and the perennial concern with extralegal factors in sentencing policy. While history, theory, and legislation describe different potential relationships between monetary sanctions and prison, I explain how empirical studies further complicate each one. I conclude with the resulting policy implications and recommendations for advancing both relevant theory and current practice.

Origins

The original intent of monetary penalties was to replace the deprivation of liberty. This goal is evident in the long history of monetary sanctions in state sanctioning that dates back to ancient times (see Sichel 1982c for an overview)[13] and in the early scholarship focused on the effectiveness of these sanctions. In the late 1980's and mid-1990's, the Vera Institute impressively reviewed all

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[12] They present an even more forceful protest: "[W]e submit that incoherence, once acknowledged, is unacceptable, even scandalous. Something should be done about it." (Sunstein et al 2001, p. 30).

[13] There is a related but theoretically and empirically distinct literature explicitly addressing fines that tends to be in the realm of *attitudes* about sentencing and crime rather than about the actual practice of using monetary sanctions (e.g. Cohen et al 2002).

extant research (Sichel 1982a; Sichel 1982b; Sichel 1982c; Zamist 1982.). Their findings focused on misdemeanors and covered the use of day fines (as did a 1999 RAND Corporation[14] study), European fine use, model statutes, and legislative history. The general conclusion of these early studies is that fines are a promising aspect of sentencing but that more research is required to understand their utilization in a US context. This is similar to the conclusion of a series of demonstration project sponsored by the Bureau of Justice Assistance (BJA 1996). These studies treated fines as an alternative to prison and the main finding was that more information was needed about the effectiveness of fines (Tonry 1997, p. 13).[15] A limitation of these early studies is that typically only certain offenders and offenses were eligible for the intermediate sanction of fines, limiting knowledge about how they operate across the spectrum of offense severity and criminal history levels. That the initial conception of monetary sanctions was as an alternative to prison is reflected in the policy agenda that precipitated their widespread use in modern sentencing.

The current prevalence of monetary penalties originates in the Alternative Sanction Movement (ASM) of the 1980's. The first incidences of prison over-crowding, reports that probation was failing in many urban areas, and the publication of an influential book[16] arguing for options besides prison and probation collectively instigated a significant interest in a variety of intermediate sanctions (Petersilia 1998). Fines were promoted as one of the less expensive, but still effective, options to prison. The legacy of the ASM is that alternative sanctions are now a codified aspect of sentencing. Just as during the ASM, prisons are currently over-crowded and jurisdictions are keen to find less costly alternatives. But now, the deficits at every level of government are driving an increasingly urgent search for revenue sources, as explained above. Indeed, a recent report finds that the total shortfall expected by 29 states for fiscal year 2013 is $44 billion (McNichol et al 2012). In sum, the ASM helped establish the legitimacy of monetary sanctions and current budget pressures may be driving their ubiquity and increasing their severity.

Monetary penalties were originally intended to be an alternative to the deprivation of liberty and the ASM helps explain their current ubiquity. Although monetary sanctions were promoted as an alternative, in practice, it is still unclear when fines should be a viable substitute for prison (i.e. when can they offset a portion of a prison sentence) and when they are an appropriate alternative to incarceration altogether. Economic theory seeks to answer this question by treating monetary penalties and prison as inputs into a model of optimal punishment.

Economic Theory

The economic approach to explaining the relationship between prison and monetary penalties is to treat the two sanctions as strict substitutes for one another. That is, monetary sanctions are expected to be used in exchange for prison. As the use or severity of one sanction increases, the use or severity of the other decreases. This relationship is best captured by Optimal Penalty Theory (OPT) – a quintessential theory of punishment. The question of the proper role and function of monetary sanctions is a very longstanding one (e.g. Bentham 1843; Sichel 1982c); however, Gary Becker's (1968) "Crime and Punishment: An Economic Approach" is widely credited with reigniting this line of inquiry (e.g. Chu & Liang 1993; Posner 1985). His main propositions

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14 Turner and Greene (1999)

15 Similarly, a 1987 survey of judges' attitudes about fines concluded that "we need to know much more about how to use [fines] effectively" (Cole et al, p. 333).

16 "Between Prison and Probation: Intermediate Punishments in a Rational Sentencing System" by Norval Morris and Michael Tonry (1990).

form the basis of OPT and include the idea that fines should be maximized and prison should only be used once this maximization occurs.

Considering the trade-off between prison and monetary sanctions leads to the question of whether or not wealth should determine punishment[17] (e.g., Friedman 1981). Posner (1985) argues that it should;[18] Polinsky and Shavell (1984) argue that the optimal fine is higher for those with greater wealth, while optimal incarceration may be shorter or longer. In one of the rare applications of actual sentencing data to the predictions of OPT, Lott (1992) finds evidence that higher income offenders may suffer more punishment from monetary sanctions than lower income offenders, if prospective earnings and reputation costs are also taken into account. These studies are just a few examples of the copious formal model-based work that prioritizes microeconomic models over empirical evidence (e.g., Polinsky and Shavell 1984; Chu & Jiang 1993; Levitt 1997; Piehl and Williams 2009).[19] While these models are useful for comparing theory to practice, the assumptions on which the models are built diminish their explanatory power.

The most problematic assumption of OPT is that monetary sanctions are socially costless. OPT has the explicit assumption that "the social cost of fines is about zero" (Becker 1968, p. 180). However, there are two sources of non-negligible social costs that warrant consideration: the social costs of depriving an individual of property and the costs associated with the process of assessing, administering, and collecting monetary sanctions. Becker lists "guards, supervisory personnel, buildings, food, etc." as the reasons why $1 billion was being spent on custodial sentences at the time of his writing. He dismisses the costs of fines: "[a]side from collection costs, fines paid by offenders are received as revenue by others" (Becker 1968, p. 180). But there are abundant reasons to expect that depriving an individual of financial wealth affects others. For instance, there is arguably a social cost associated with the people who would otherwise be likely to receive or benefit from that wealth, such as dependants, employees, or merchants. Depending on the wealth and particular life circumstances of an offender, these costs could have extensive and debilitating consequences. In addition, monetary penalties mandated by and payable to the state diminish the resources available to pay victims in cases where civil damages are awarded.

The other source of significant social cost is the complex infrastructure that determines policy for, administers, and collects monetary sanctions. In the federal system, this infrastructure involves the Administrative Office of the US Courts (AOUSC), which provides guidance to probation officers. These officers are in turn responsible for determining the payment schedule that an offender is expected to follow (GAO 1998). The process of being assessed a monetary penalty begins with an extensive personal and financial history that is conducted by a pre-sentencing trial or probation officer[20] (GAO 2005). These officers execute numerous tasks and routinely obtain a

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17 Lott (1987) argues that varying likelihood of *conviction* on the basis of wealth instead of punishment (prison sentence length) is actually more consistent with OPT.

18 Posner (1985) suggests that it is "efficient to use different sanctions depending on an offender's wealth." Imprisonment is designed primarily for the non-affluent, who would not be deterred by tort law (since they are judgment proof) (p. 1205). The affluent, in contrast, may be deterred by traditional tort remedies, and accordingly it makes economic sense to use these methods.

19 While there is much agreement on the basic premise and assumptions of Becker's work, there is also some notable dissent. For example, attempts to account for realistic factors such as there being a spectrum of types of crimes and variation in offender wealth (e.g. Chu & Jiang 1993) find that maximized fines may not maximize deterrence.

20 There may or may not be a distinciton between these two job categories, depending on the jurisdiction.

signed financial statement and affidavit, obtain a credit check, check registration of assets such as cars and boats, conduct real estate title searches, review original documents such as pay stubs and tax returns, examine records for "inconsistencies and investigative leads," resolve any inconsistencies, and pursue any leads (Bowker 1998). This is solely the process that precedes the assessment of a monetary sanction and the determination of its amount. There are also costs arising from the institutional mechanisms set up for collection. Within the Department of Justice, the Financial Litigation Units of the US Attorney's Offices play a key role in fine collection, including the ability to place liens on offenders' assets (GAO 1998). Collecting and tracking payment is a primary responsibility of probation officers, who must constantly commit time and resources to this task with each offender. This unit also pursues unpaid monetary penalties, once the offender is no longer under court supervision. Altogether, there are explicit and collateral social costs associated with monetary sanctions. While they may not be of the same magnitude as prison, the costs of monetary sanctions are certainly well above negligible.

These costs alter the predictions of OPT's models. Rather than starting with monetary penalties and then supplementing with prison, a simultaneous account of both makes sense, since neither is free. This type of accounting would facilitate using OPT to help explain observed phenomena, such as the extent to which monetary sanctions are used as a supplement. At present, it is difficult to use OPT to explain the inconsistent use of monetary penalties across similarly situated offenders who differ solely on extralegal factors, because the theory cannot account for different levels of "maximized punishment." For OPT to be fully applicable, it would have to explain the *simultaneous* increase in use or severity of both sanctions as a function of punishment and cost as opposed to the *independent* use of these sanctions. Overall, economic theory relating to monetary penalties treats them as a substitute for incarceration. However, the flawed assumptions guiding this theory reduce its applicability to pertinent questions of monetary penalty use. In sum, economic theory predicts a particular relationship between prison and monetary penalties that does take into account the full cost of each. It is important to recognize this disconnect between theory and reality in order to comprehend the current state of knowledge about monetary penalties.

Legislation

The laws specifying the use of monetary penalties provide additional insight into their current status. Thus far, the history of monetary penalties shows that these penalties were meant to be an alternative to incarceration. Conversely, OPT treats monetary sanctions as a substitute for prison in the economic sense. The following review of pertinent legislation establishes that current sentencing policy prioritizes using monetary penalties as a supplement to incarceration, but creates the possibility for their use as a substitute as well. I begin with a description of the federal sentencing guidelines, which set the parameters of monetary penalty use and are a locus of perennial concern with judicial discretion and extralegal factors in sentencing policy. I then explain the Supreme Court ruling, *US v. Booker (2005)*, which significantly altered judicial discretion.

Sentencing Guidelines

In the federal system, sentencing is based on the elaborate sentencing guidelines mandated by the United States Sentencing Commission (USSC), established by the Comprehensive Crime Control Act of 1984. To put this legislation in context, this is the same year that Nancy Reagan launched her "Just Say No" anti-drug campaign and President Reagan signed the Anti-Drug Abuse Act in 1986. The "War on Drugs" was just starting to have its now notorious effect on massively increasing the jail and prison populations. During this time, the USSC developed a set of mandatory sentencing guidelines, the goals of which were to ensure consistency and punitiveness in sentencing.

The upshot of the guidelines was to significantly restrict the discretion afforded to federal judges in making sentencing decisions. However, the amount of judicial discretion has fluctuated ever since.

The USSC guidelines went into effect in November 1987. Soon thereafter individuals who had been sentenced under the guidelines challenged their constitutionality on the basis of improper legislative delegation and violation of the separation of powers doctrine. The US Supreme Court ruled in support of the Sentencing Commission in *Mistretta v. United States* (1989). The 1996 decision in *Koon v. United States* increased judicial discretion by altering the review standard for departures, while the Feeney Amendment of the 2003 PROTECT Act limited it again by shifting certain authority to prosecutors.[21]

Incarceration is the primary focus of these shifts in judicial discretion. For custodial sentences, the sentencing guidelines give federal judges a range from which to choose a sentence length. The range is a function of an offender's criminal history (6 categories) and his offense level (43 categories). The extent and recency of an individual's offenses determine his criminal history score. The offense level is based on the severity of the offense. The guidelines provide a grid with criminal history as the horizontal and offense level as the vertical. The intersection of these two determines the sentence range in months (see Appendix A[22]). By contrast, the guidelines specify that monetary sentences strictly be a function of the offense level. Judges are expected to assess fines for every offense and to give a reason each time they depart from the fine structure. In sum, efforts to manage judicial discretion require two parameters (offense level and criminal history) for custodial sentences – but only one for monetary sanctions (offense level). I propose that this discrepancy in constraints catalyzes the bind between judicial discretion and inconsistent monetary sanction use. Since the guidelines entail more comprehensive constraints for incarceration than for monetary sanctions, when pressure is applied to reduce discretion, discretion is more likely to occur in the arena with fewer constraints: monetary sanctions.[23] In other words, although the guidelines prescribe that monetary sanctions be mostly used in addition to prison, the system creates the possibility for their use as a substitute as well (on the basis of likelihood, severity, or both). The impetus to minimize judicial discretion is closely related to that of reducing the undue influence of extralegal factors.

The quest to minimize the influence of extralegal factors on sentencing outcomes is a constant feature of legislation on monetary sanctions.[24] This arises from the standing priority of concern with disparities, especially on the basis of factors such as race and gender,[25] in federal sentencing policy. A major impetus for the guidelines was ensuring equity in sentencing (e.g. "criminals with similar backgrounds who commit similar crimes receive similar sentences" USSC Factsheet 2006). The guidelines explicitly address this issue : "Race, Sex, National Origin, Creed, Religion, and Socio-Economic Status (Policy Statement). These factors are not relevant in the determination of a sentence" (Chapter 5, Part H). The idea being to direct judges to not consider

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21 For a full account of the legislative history of the sentencing guidelines and related court rulings, see Ulmer et al (2011).

22 For example, an offender with a criminal history category of III and an offense level of 16 should receive a sentence between 27 and 33 months.

23 Thermodynamic and Hydraulic Displacement theories imply that there should be a predictable trade-off between monetary and custodial sanctions: as one increases in use or magnitude, the other should decrease in use or magnitude. (Miethe 1987; Walker 1994)

24 e.g. "its [(racial disparity)] reemergence over the past year suggests the need to return to a system of colorblind sentencing guidelines" (USSC Factsheet 2006)

25 Although there is also concern with inter-district and inter-judge disparities (e.g. Hofer 2007; Johnson 2006)

extralegal factors in sentencing. Yet, the literature on custodial sentencing provides abundant evidence that this goal of the guidelines has not been achieved. This failure points to the need for theory and analysis to take into account the power of extralegal factors to affect judicial decision-making.

Despite efforts to eradicate sentencing disparities via sentencing guidelines, research on the topic finds continued influence of extralegal factors and mixed results for the effectiveness of sentencing guidelines (see Mitchell, 2005; Spohn, 2000; Kleck, 1981; Green 1971 for detailed reviews). In one line of this research, scholars examine the role of extralegal factors in case outcomes. While there is some evidence that the guidelines successfully reduced these disparities (e.g. United States Sentencing Commission, 2004), there is also evidence that the guidelines have been unsuccessful. In a particularly comprehensive study of federal sentencing guideline effects, Mustard (2001) found that offenders who are Black, male and less educated still receive longer custodial sentences than their counterparts. A related set of studies examine the consequences of state-based sentencing guidelines[26] (see Tonry, 1997 for a review of guideline effects in Oregon[27] and Washington). The other line of research focuses specifically on departures from the guidelines (e.g. Albonetti, 1997, 2002; Hartley, Madden, and Spohn, 2007; Johnson, Ulmer, and Kramer, 2008; LaFrenz and Spohn, 2006; Maxfield and Kramer, 1998; Stacey and Spohn, 2006; Steffensmeier and Demuth, 2000). As a group, these studies indicate that attempts to manage judicial discretion via sentencing guidelines are largely unsuccessful in eliminating disparities in incarceration. Moreover, because the use of monetary sanctions is subject to fewer constraints, extralegal factors have more potential to influence the use of these sanctions. While the sentencing guidelines codify the use of monetary sanctions as a supplement to prison, they also create more constraints for prison than for monetary sanctions. Thus, prevailing sentencing policy generates potential for monetary penalties to also be used as a substitute for prison.

United States v. Booker

A major turning point in judicial discretion was the Supreme Court case, *United States v. Booker*, 543 U.S. 220 (2005). *Booker* addressed the issue of whether or not the Sixth Amendment right to a jury trial applies to federal sentencing guidelines. The Supreme Court found that this right does apply and asserted that the guidelines should be advisory rather than mandatory.[28] The court also ruled that guideline-based sentences are subject to appeal for "reasonableness." In *Gall v. United States* (2007), the Court wrote that the guidelines should be "the starting point and initial benchmark" in the interest of consistency across all districts. At present, the judges must consult the guidelines, but they are not statutorily bound to strictly adhere to them.

In contrast with the robust scholarship on the effectiveness of the guidelines in eradicating sentencing disparities, studies of the effect of *Booker* remain relatively scarce. These studies, too, focus on incarceration. For example, the USSC's 2010 report finds that Black male offenders receive longer sentences than White male offenders, and women of all races receive shorter sentences than men (USSC 2010). However, a reanalysis of the same data but with methodological improvements

[26] For example, several studies found that Minnesota's guidelines did indeed reduce racial disparities but that minorities were still more likely to be incarcerated (Knapp 1984; Miethe and Moore 1985; Frase 1993; Miethe and Moore's 2006).

[27] See also Merritt et al. (2006) – Oregon; Ulmer and Kramer (1996) – Pennsylvania

[28] Part of the ruling held that any factor that increased sentences had to be considered by the jury during trial.

finds that the expected large increases in post-*Booker* disparities did not occur (Ulmer et al 2011).[29] Taken together, these studies indicate that the effects of increased discretion may not be entirely straightforward nor limited to incarceration. *Booker* may have just altered how disparities based on extralegal factors are expressed.

Overall, the recent history of federal legislation governing sentencing provides some useful insights. The interaction of varying levels of judicial discretion and tighter constraints on incarceration than on monetary penalties combine to create an environment in which monetary sanctions can be readily used as either a substitute or a supplement to incarceration. In addition, even though the law prohibits the use of extralegal factors, the interaction of shifting discretion and unequal constraints facilitates the continued power of these factors to influence decision-making. Even though the law prescribes using monetary sanctions as a supplement to incarceration, there is solid reason to expect these sanctions are essentially used to adjust how punitive the total sanction is. This potentiality raises the empirical question of how monetary sanctions are actually used – the final source of insight for explaining the status quo.

Empirical Analyses

History, theory, and legislation all contribute to explaining the current prevalence and form of monetary penalties. Notably, each domain has a different conception of the relationship between monetary sanctions and prison. Rather than resolving these differences, empirical analyses of actual monetary penalty use raise additional questions for the potential of equitable and efficient sentencing policy.

In the federal system, all offenders are subject to monetary sanctions. The one example[30] of a federal-level analysis of monetary sanction implementation comes from the federal government itself. In 1998, the US Government Accounting Office (GAO) attempted to establish how fines and fees were being used in the federal system. It concluded that there was significant variation in monetary sanction use between districts (an indication of an effect of judicial discretion) and that more data and analysis were warranted. However, this report did not provide a comprehensive analysis of how monetary sanctions vary (or fail to vary) with custodial sentences. To understand the substitute versus supplement issue, the interaction with prison is essential.

Only a few studies have directly examined the relationship between incarceration and monetary sanctions. One experimental study about the relationship between incarceration and fines found that the success of utilizing the latter depended on there being a viable threat of the former (Weisburd et al 1998). This approach basically treats fines as both an alternative *and* a supplement. You are assessed a fine instead of prison, unless you fail to pay, in which case you receive both sanctions. In a rare test of OPT with actual sentencing data, another study finds that different factors drive the use of prison and fines (Waldfogel 1995). Specifically, the harm caused by the offense and the offender's criminal history determine prison, while income and "dollars involved in the offense" determine fines (Waldfogel 1995, p. 129). Note that this analysis focused solely on fraud offenders. Another study also focuses on a subset of offenders (white-collar) and concludes that: "The starkest finding is that prison time is less for those who pay a fine versus those who pay no fine, and these differences are all statistically significant at the 1% level … these averages provide some evidence that the amount of prison time is in part determined by the fine" (Schanzenbach &

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[29] The analysis finds that the odds of imprisonment for Black male offenders was stable post-*Booker*, but increased post-*Gall*.

[30] A separate GAO report the following year addressed the development of payment schedules for fines and restitution (GAO 1999).

Yeager 2008, p.778).[31] These conclusions indicate that the interaction of prison and monetary sanctions is a fruitful line of inquiry; however, they have limited applicability to the full spectrum of offenses and offenders.

Relevant empirical work does explore the trade-off between types of monetary sanctions – i.e. fines, restitution, etc. In an analysis using state-level data of how the likelihood and severity of these sanctions varies by extralegal factors, Ruback (2004) finds that: restitution is more likely to be assessed for property crimes; restitution is more likely for younger and White; fines and costs more likely for non-property crimes, mostly violent crimes; fines more likely for males, older, White; and, fines are less likely when restitution also imposed. Note that this study does not consider the trade-off between monetary penalties and prison. Taken together, the empirical work on monetary sanctions addresses implementation, but tends to focus on a subset of offenders. The few studies that explicitly address the trade-off with prison also focus on a subset of offenders. There is a consistent finding of the influence of extralegal factors, especially in the trade-off between types of monetary sanctions. History, theory, and legislation each describe different potential or ideal relationships between monetary penalties and prison. Overall, relevant empirical work further complicates, rather than resolves, these differences.

CONCLUSION

Monetary penalties are a complex and troublesome criminal sanction. Though monetary penalties are nominally the fines, restitution, and other financial obligations that accompany felony convictions, any sustained inquiry into their use and meaning exposes dense complexities. Monetary penalties are problematic for empirical, theoretical, and policy reasons. At their core, they entail a fundamental incommensurability between money and harm. Understanding monetary penalties requires knowing how they interrelate with prison; yet, history, theory, legislation, and empirical assessments all provide different accounts of this relationship. This close examination of monetary penalties provides the most thorough account of their use and meaning to date. To conclude, I raise several additional issues to which this endeavor makes a valuable contribution and that warrant scholarly attention.

The progress of sentencing policy demands a theory of monetary sanctions that accounts for how they are used in conjunction with prison – reflecting the reality of modern punishment. Such a theory could provide the basis for taking normative considerations into account. Proponents of monetary sanctions see them as an essential non-prison sentencing option (e.g. Ruback 2011); while critics argue that they are an unfair and illogical obstacle to successful post-incarceration re-entry (Beckett & Harris 2011). Importantly, the results of this project inform the debate; since, by clarifying the current use and meaning of monetary sanctions at the federal level, it elucidates important considerations in either increasing or decreasing the prevalence of monetary penalties.

This discussion also points to a need for a model policy of monetary sanction use. Such a policy would need to:

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[31] There is also evidence that extralegal factors have an effect: "Instead, we interpret our result as evidence that whites who pay fines get out of more prison time than blacks and Hispanics who pay fines. This is likely because the more one pays, the more time is forgiven, and blacks and Hispanics tend to pay less than whites" (Schanzenbach & Yeager 2008, p.782).

1. explicitly take into account ability to pay (instead of leaving this an unofficial, but ubiquitous standard);
2. prioritize collection (in order to achieve the compliance necessary for deterrence);
3. acknowledge and minimize social costs (as opposed to treating monetary sanctions as "socially costless" as in OPT)
4. be based on empirical assessments of punitiveness of monetary sanctions from the perspective of offenders (with upper and lower bounds based on the public's preferences); doing so would also help resolve the prison-instead-of-fines "choice."

A policy of this nature would make best use of available research, while simultaneously generating data for further evidence-based refinements.

It is an as-of-yet unanswered empirical question whether or not those who are assessed a monetary sanction but do not pay it are more likely to recidivate than those who pay their monetary sanction. It could be the case that merely being assessed a monetary sanction and knowing that you owe the government money is sufficient punishment. By specifying the inherent complexities of monetary penalties, this discussion provides first steps towards answering such a question.

Finally, monetary penalties are an underexplored, yet pivotal component of equitable and efficient sentencing policy. There is a tension between the ideal of eradicating discrepancies (similar offenders treated similarly) and the reality of the infinite permutations of factors that are relevant to achieving the goals of punishment through rational, just, and meaningful sentencing. As Luna (2005) explains:

> "Although modem liberal philosophy stipulates that each individual is inherently unique, this theoretical imperative also corresponds with the material world, as two-dimensional space cannot capture the past, present, and future of an individual and the surrounding community. Punishment theory may frame or even guide a judge's exercise of moral judgment, but it cannot answer in advance the untold number and variety of questions that might be raised when considering the precise fate of a real human being" (p. 77).

The tension between these two concerns creates the space in which extralegal factors become a significant factor. Perhaps these factors are serving as proxies for the "past, present, and future" of an offender. From these factors judges glean – either consciously or not – information that affects their decision to adjust how punitive the combination of incarceration and monetary sanctions should be. This possibility is reflected in the findings of Papers 2 and 3: monetary sanctions are both a substitute and a supplement to incarceration, largely as a function of extralegal factors. Altogether, this discussion indicates the need for an account of monetary sanction use that simultaneously considers prison, extralegal factors, and judicial discretion. Only this comprehensive approach will create a complete picture of the use and meaning of monetary penalties in criminal sentencing.

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APPENDIX A
USSC Sentencing Guidelines

2006 Federal Sentencing Guidelines; CHAPTER FIVE - PART A - SENTENCING TABLE

		CRIMINAL HISTORY CATEGORY (Criminal History Points)					
		I	II	III	IV	V	VI
		(0 or 1)	(2 or 3)	(4, 5, 6)	(7, 8, 9)	(10, 11, 12)	(13 or more)
OFFENSE LEVEL							
Zone A	1	**0-6**	**0-6**	**0-6**	**0-6**	**0-6**	**0-6**
	2	**0-6**	**0-6**	**0-6**	**0-6**	**0-6**	1-7
	3	**0-6**	**0-6**	**0-6**	**0-6**	2-8	3-9
	4	**0-6**	**0-6**	**0-6**	2-8	4-10	6-12
	5	**0-6**	**0-6**	1-7	4-10	6-12	**9-15**
	6	**0-6**	1-7	2-8	6-12	**9-15**	12-18
	7	**0-6**	2-8	4-10	**8-14**	12-18	15-21
	8	**0-6**	4-10	6-12	**10-16**	15-21	18-24
Zone B	9	4-10	6-12	**8-14**	12-18	18-24	21-27
	10	6-12	**8-14**	**10-16**	15-21	21-27	24-30
Zone C	11	**8-14**	**10-16**	12-18	18-24	24-30	27-33
	12	**10-16**	12-18	15-21	21-27	27-33	30-37
Zone D	13	12-18	15-21	18-24	24-30	30-37	33-41
	14	15-21	18-24	21-27	27-33	33-41	37-46
	15	18-24	21-27	24-30	30-37	37-46	41-51
	16	21-27	24-30	27-33	33-41	41-51	46-57
	17	24-30	27-33	30-37	37-46	46-57	51-63
	18	27-33	30-37	33-41	41-51	51-63	57-71
	19	30-37	33-41	37-46	46-57	57-71	63-78
	20	33-41	37-46	41-51	51-63	63-78	70-87
	21	37-46	41-51	46-57	57-71	70-87	77-96
	22	41-51	46-57	51-63	63-78	77-96	84-105
	23	46-57	51-63	57-71	70-87	84-105	92-115
	24	51-63	57-71	63-78	77-96	92-115	100-125
	25	57-71	63-78	70-87	84-105	100-125	110-137
	26	63-78	70-87	78-97	92-115	110-137	120-150
	27	70-87	78-97	87-108	100-125	120-150	130-162
	28	78-97	87-108	97-121	110-137	130-162	140-175
	29	87-108	97-121	108-135	121-151	140-175	151-188
	30	97-121	108-135	121-151	135-168	151-188	168-210
	31	108-135	121-151	135-168	151-188	168-210	188-235
	32	121-151	135-168	151-188	168-210	188-235	210-262
	33	135-168	151-188	168-210	188-235	210-262	235-293
	34	151-188	168-210	188-235	210-262	235-293	262-327
	35	168-210	188-235	210-262	235-293	262-327	292-365
	36	188-235	210-262	235-293	262-327	292-365	324-405
	37	210-262	235-293	262-327	292-365	324-405	360-life
	38	235-293	262-327	292-365	324-405	360-life	360-life
	39	262-327	292-365	324-405	360-life	360-life	360-life
	40	292-365	324-405	360-life	360-life	360-life	360-life
	41	324-405	360-life	360-life	360-life	360-life	360-life
	42	360-life	360-life	360-life	360-life	360-life	360-life
	43	life	life	life	life	life	life

SUBSTITUTE & SUPPLEMENT:
THE MULTIPLE FUNCTIONS OF MONETARY PENALTIES IN FEDERAL SENTENCING

ABSTRACT

This study investigates the use of monetary penalties in federal sentencing to determine whether and when monetary penalties are a substitute or a supplement to incarceration. To clarify the relationship between prison and monetary penalties, this analysis uses the innovative approach of focusing on both severity and likelihood for both sanctions. This analysis assesses three competing hypotheses for the relationship between monetary penalties and incarceration: strict complement, strict substitute, or a combination of the two. An analysis of sentencing data utilizing the grid structure of the sentencing guidelines provides initial evidence supporting the mixed hypothesis. Hierarchical linear models provide additional support as well as revealing the importance of the interaction of race, gender, and offense type in determining the severity of monetary penalties. By making the case that monetary penalties are used as both a substitute and supplement to incarceration and identifying some of the conditions under which each occurs, this analysis expands our understanding of one of the most prevalent non-incarceration sanctions in criminal sentencing.

Introduction

The primary goal is to determine if monetary penalties function as both a substitute and a supplement to incarceration. Doing so is the first step in determining whether monetary penalties are used to adjust condemnation.

The stylized graphs in Figures 1 through 3 show the patterns we would expect to see for various relationships between monetary penalties and prison. If they are strictly a substitute for prison, then their relative use should resemble Figure 1. If they are a strict supplement to prison, then Figure 2 represents the relationship. Figure 3 provides a third alternative – a combination of the two options. It reflects the assumptions in relevant theory. Optimal Penalty Theory proposes a model of efficiency in which punishment is maximized while social costs are minimized (e.g. Becker 1968). Theorists writing about monetary sanctions in the domain of the Expressive Function of Law propose that the appropriateness of monetary penalties is limited by their inability to convey sufficient condemnation (as compared to incarceration) for more serious offenses (e.g. Kahan 1996). Combining insights from the two suggests that fines are a preferred substitute for prison; however, as severity of offense increases, prison should be increasingly prevalent and fines are used to supplement that sanction. In order to determine which of these possible relationships monetary penalties actually have with prison, the two dimensions of sentencing outcomes – severity and likelihood – must be disentangled.

Figure 1

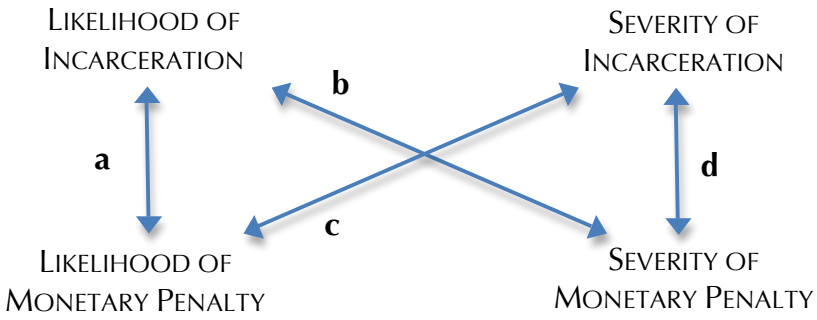
Figure 2

Figure 3

A focus strictly on *likelihood* comports with the definition of complement and substitute in the economic sense. In which case, the relationship between the sanctions shown in these Figures 1-3 makes sense. For likelihood, it is simply a "yes/no" question for each sanction and the question is how the use of one sanction affects the use of the other. But how would we apply this framework to a comparison of a 12 month prison sentence coupled with a $5000 fine to a combination of a 13 month prison sentence and a $4000 fine? On what basis do we assess, and possibly equate, a month of prison and $1000? It may be possible to derive the exchange rate of the severity of the two types of sanctions by deriving a value of a month in prison. Indeed, some scholars use such a value to investigate disparities in sentencing (e.g. Waldfogel 1995; Schanzenbach & Yager 2006). However, using a constructed value of a month in prison raises the question of whether this value will be consistent enough across policy-makers and offenders to support – and not thwart – equity in sentencing. These issues highlight the importance of making a disctinction between the likelihood of receiving a sanction and the severity of that sanction. First, there is the decision to assess the sanction or not (receiving a prison sentence, a monetary penalty, or both). Second, is the decision about the severity of the sentence. Indeed, researchers focusing on prison sentences make this delineation and emphasize the

importance of doing so (e.g. Ulmer et al 2011[32]; Johnson 2006). Achieving the goal of determining the relationship between prison and monetary penalties requires making this distinction and exploiting the differences of the two sanctions to draw insights into how they interact.

Figure 4



The relationship between monetary penalties and incarceration can take one of four basic forms. Figure 4 illustrates that the relationship can be one of complete substitution (in which all four links are negative), complete complementarity[33] (in which all four links are positive, i.e. "supplement"), complete independence (in which all four links are zero), or a mixed relationship (in which some links are positive and some are negative). The first task is to determine if there is supporting evidence for both the substitute and supplement options. Once this is accomplished, the next step is to identify the mechanisms driving the patterns of use.

To address these issues, I proceed as follows. I begin with a comparison of the likelihood of prison versus that of monetary penalties. I then make a case for establishing a method for comparing severity of the two dissimilar sanctions and employ the proposed methodology. Next, I focus on the conditions affecting the observed relationship between prison sentences and monetary penalties, specifically exploring the role of extralegal factors (e.g. race and gender) and departure status.

Likelihood and Severity

In order to understand the role of monetary penalties and consistent with the two final decision points in sentencing mentioned above, the severity and likelihood of both sanctions must be examined. Failing to do so fosters a problematic conflation of distinct concepts and measurements. It also hinders the present goal of identifying the conditions under which monetary penalties function as either a substitute or a supplement to prison. Prior investigations of the relationship between prison and fines focus almost entirely on the likelihood of fines – a "yes/no" approach, as opposed to a "how much" orientation. In part, this is owing to their orientation in the Optimal Penalty Theory scholarship, which conceptualizes fines as a substitute for rather than a supplement to incarceration. In one of the rare studies that examines actual sentencing data for both prison and monetary penalties in an attempt to understand how the sanctions relate to each other, Schanzenbach and Yaeger (2006) separately analyze those who receive a fine and those who do not. This approach essentially provides

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[32] In fact, Ulmer et al (2011) found that accounting for those with zero months of prison substantially altered the USSC's (2010) estimates of racial disparities.

[33] Monetary penalties are a supplement to prison when they offset neither prison severity nor prison likelihood.

a comparison of the *severity* of a prison sentence with the *likelihood* of a monetary sanction. They find that prison sentences tend to be less severe (shorter) for people who are also assessed a monetary sanction. This analysis is useful for helping explain how monetary penalties function as a substitute for prison, but leaves unanswered the questions of if and how they function as a supplement to prison. The present analysis expands on Schanzenbach and Yaeger's inquiry to include assessments of the *likelihood* of prison and the *severity* of monetary penalties. Doing so is necessary to develop a full understanding of the role of monetary penalties in sentencing.

In the only study known to the author that explicitly stipulates that monetary penalties and prison may be independently determined rather than substitutes in the economic sense, Waldfogel (1995) underscores the importance of considering both the likelihood and severity of both prison and monetary penalties. He finds a negative relationship between the likelihood of monetary penalties and the likelihood of prison. But he also finds a negative relationship between monetary sanction severity and prison sentence severity, when desert is held constant. Both findings point to the role of monetary penalties as a substitute to incarceration, supporting the efficiency predicted by OPT. Waldfogel's analysis provides a useful foundation on which to build an understanding of the role of monetary penalties. It indicates that for fraud offenders (the focus of his study), monetary penalties function as a substitute to incarceration. The present task is to further uncover the conditions under which this is the case. We now have the advantage of many more years of sentencing data, which provides the opportunity to compare Waldfogel's findings with the results of analysis based on more recent and expanded data.

The tables in this section are based on federal sentencing data from 2001 to 2008. The dataset is divided into pre- and post-Booker subsets. To identify severity in monetary penalties, I investigate changes in monetary penalty (fines plus restitution) amounts over time. To do so, I exploit the structure of the sentencing guideline grid itself. Tables 1a through 1c recreate this grid, with offense level on the y-axis and criminal history on the x-axis (see Appendix C for larger version). The content of each cell is the average sentence for the individuals whose offense level and criminal history places them in that cell. In Table 1a and 1b, the contents are the average monetary sanction. Table 1a shows the average monetary sanction by cell for the three years prior to *Booker*, while Table 1b shows the average monetary sanction by cell for the three years after *Booker*. The cells are shaded such that larger penalties are darker in color. Four categories of severity are coded: less than $1000, between $1000 and $5000, $5001 to $10,000, and greater than $10,000. What becomes clear when the sentence severity is presented in this way is that severity increased post-Booker, but that the increase only took place in certain regions of the sentencing grid. The "wedge" of increased severity is approximately defined by an upper line extending from offense level 6/criminal history I to offense level 13/criminal history VI and a lower line extending from offense level 41/criminal history I to offense level 28/criminal history VI. A comparison with Table 1c provides even more insight into the use of monetary penalties, since it highlights the regions of post-Booker change for prison sentences. These cells are shaded to reflect changes in prison sentences of at least six months: the lighter shade is for increases and the darker shade is for decreases.

Tables 1a & 1b: Changes in monetary sanction severity by sentencing guideline cell, pre- and post-Booker

< $1000
$1000 to $5000
$5001 to $10,000
>$10,000

PRE-BOOKER

Offense Level	Criminal History I	II	III	IV	V	VI
1	5,134	1,233	386	322,362	167	3,204
2	3,345	1,673	0	.	200	0
3	1,036	946	523	516	743	319
4	2,374	358	297	1,329	1,157	3,315
5	3,599	2,353	1,075	672	856	676
6	6,659	2,026	1,657	1,122	4,069	2,221
7	6,284	3,443	2,815	1,979	2,841	2,656
8	8,052	4,342	5,964	998	1,022	1,168
9	10,543	9,859	12,931	5,827	5,096	5,181
10	17,660	9,804	7,986	4,366	7,218	6,015
11	13,940	13,925	8,887	12,096	9,069	10,924
12	43,496	27,638	13,798	10,683	8,611	8,319
13	22,169	14,069	9,734	7,620	8,381	9,338
14	44,718	20,185	23,725	20,129	22,640	18,633
15	76,780	54,265	41,988	29,279	20,170	13,012
16	57,295	23,722	27,140	19,657	16,320	22,297
17	137,869	76,001	61,976	69,864	47,719	44,551
18	73,953	29,322	15,526	14,572	11,176	14,441
19	190,833	148,128	86,325	43,060	84,039	55,845
20	114,702	32,168	33,160	37,769	8,520	16,700
21	242,914	85,940	90,790	35,431	47,332	43,399
22	88,406	90,071	41,620	15,634	5,016	23,738
23	309,155	118,249	156,359	34,163	31,351	14,722
24	127,541	28,201	17,290	18,995	34,387	8,923
25	369,840	130,201	64,562	53,277	36,381	27,115
26	98,008	22,530	26,669	10,152	5,058	9,718
27	381,379	75,233	148,458	64,056	16,672	83,507
28	45,400	65,135	14,171	12,217	26,396	34,909
29	421,274	217,168	81,422	35,601	13,564	9,579
30	66,371	12,109	19,602	15,536	2,133	4,190
31	304,440	30,137	306,779	3,490	8,624	9,614
32	141,947	50,079	43,145	4,182	35,979	3,654
33	362,262	110,926	14,532	18,701	61,699	15,121
34	32,302	110,224	49,984	5,074	3,427	3,995
35	295,080	1,674	17,020	374,977	20,715	4,609
36	255,151	6,772	3,369	1,427	922	13,679
37	250,631	614,456	3,910	1,866	1,705	34,741
38	353,872	271,130	33,045	1,456	1,960	10,193
39	402,895	126,961	1,928	3,655	1,071	906
40	545,337	554,220	29,659	1,322	1,097	1,946
41	560,885	117,649	6,682	21,969	10,886	1,162
42	388,273	807,855	9,571	1,431	350	2,807
43	11,813	17,014	6,187	17,084	1,797	5,157
	884,308	20,271	5,988	14,097	3,152,776	3,778

POST-BOOKER

Offense Level	Criminal History I	II	III	IV	V	VI
1	7,299	736	487	1,000	0	0
2	5,111	1,032	755	1,790	439	1,940
3	6,596	590	3,392	448	2,123	1,299
4	3,948	1,346	1,927	734	934	879
5	5,038	2,021	2,529	1,966	1,485	1,773
6	14,680	3,182	2,141	2,402	2,663	2,773
7	11,230	4,832	1,440	453	1,028	890
8	12,199	24,643	10,680	5,238	6,727	6,396
9	16,124	16,615	9,433	19,668	8,065	6,550
10	17,767	14,785	15,402	10,547	8,572	9,178
11	25,425	20,133	12,174	16,465	13,267	7,912
12	18,119	12,196	9,403	5,660	7,284	6,000
13	36,612	25,105	15,592	13,105	48,349	11,254
14	70,241	101,481	32,336	21,516	29,060	11,614
15	57,263	26,597	17,413	11,509	14,573	46,368
16	150,676	119,146	59,593	26,777	210,791	46,636
17	94,184	38,819	11,473	8,949	11,160	9,865
18	178,555	127,973	66,513	70,414	28,838	45,079
19	109,676	46,116	28,573	21,018	16,808	9,676
20	384,779	111,639	71,077	55,544	88,795	29,763
21	88,799	36,429	35,495	8,250	13,538	7,001
22	352,030	102,831	84,142	34,488	62,737	45,660
23	128,702	30,708	13,148	4,874	5,766	16,290
24	299,373	227,282	165,252	41,741	24,412	32,011
25	207,580	36,106	48,700	23,935	6,046	6,142
26	518,437	247,560	70,891	122,478	75,035	29,905
27	166,755	32,436	76,269	8,444	6,072	7,746
28	334,599	301,284	182,603	59,990	18,553	72,995
29	154,418	59,302	5,543	10,559	7,894	6,014
30	722,309	333,537	215,976	19,470	1,880	3,479
31	271,964	32,690	41,971	15,865	1,814	2,601
32	426,766	242,418	92,205	222,463	39,023	22,334
33	165,143	1,760	80,830	43,002	1,839	35,399
34	754,236	408,409	139,049	20,149	165,648	8,715
35	329,710	183,389	33,807	44,632	7,989	39,930
36	357,686	342,145	64,713	93,000	5,934	398,982
37	490,137	816,433	28,531	14,055	683,661	28,465
38	523,530	98,212	170,694	5,736	91,535	1,345
39	1,148,402	92,382	2,751	2,033	2,125	26,266
40	498,057	1,505,644	3,721	8,686	49,212	931
41	627,478	1,616	9,098	1,209	123,061	2,640
42	1,313,025	95,795	22,789	3,153	28,541	1,452
43	1,761,474	2,802,791	12,810	22,383	2,461,136	5,593

Table 1c: Changes in prison sentence severity by sentencing guideline cell, pre- and post-Booker

increases of at least 6 months
decreases of at least 6 months

	Criminal History					
Offense Level	I	II	III	IV	V	VI
1	-14.6	0.2	-4.0	.	.	1.8
2	-0.6	-2.7	1.3	-0.1	-0.6	2.5
3	2.5	-6.4	-1.8	-21.3	-11.9	3.7
4	1.0	1.0	2.6	1.5	-0.4	1.7
5	1.2	-0.1	2.3	-4.7	3.4	2.7
6	1.6	1.0	1.2	0.0	0.8	0.1
7	0.3	1.1	0.6	0.3	1.9	0.0
8	2.1	0.3	1.3	1.3	0.0	0.3
9	0.6	2.9	1.0	2.1	5.6	2.8
10	0.4	1.2	2.4	2.0	2.9	2.0
11	0.4	1.1	0.7	1.6	1.2	1.9
12	-0.1	1.1	0.4	2.1	0.6	1.3
13	0.3	0.9	1.9	1.8	2.1	3.2
14	-0.4	3.7	1.7	3.8	2.3	0.5
15	0.2	0.3	0.3	0.5	2.0	1.2
16	0.1	1.7	4.5	2.9	10.1	3.5
17	-0.6	0.4	1.6	0.3	2.7	1.7
18	0.3	4.3	5.1	2.8	4.6	0.4
19	-0.6	-1.2	0.9	2.2	-4.2	2.1
20	-0.1	0.1	1.1	5.5	7.1	0.4
21	-0.8	3.3	1.9	0.5	0.5	1.9
22	-0.8	-0.1	2.3	1.2	11.0	2.4
23	0.5	2.2	3.5	2.5	4.4	2.2
24	-2.3	-0.2	-0.7	8.4	5.2	0.0
25	2.2	4.3	4.2	0.0	-11.9	-0.4
26	-4.4	-10.3	9.6	10.0	-3.7	1.9
27	-0.1	3.7	7.8	3.9	3.0	-1.7
28	-4.6	5.8	4.8	3.4	-13.4	25.8
29	2.4	3.3	5.7	9.3	8.5	1.4
30	-6.0	1.7	-0.6	7.1	6.6	5.2
31	5.3	10.3	5.3	4.6	7.9	-2.6
32	4.5	3.4	12.8	-1.8	-5.6	-10.4
33	2.9	3.0	4.3	10.0	6.0	-1.7
34	0.1	13.3	17.3	-4.7	-12.1	-8.2
35	2.5	5.2	6.8	-0.6	12.4	3.7
36	6.9	-15.8	-5.1	13.7	-0.3	10.7
37	8.4	13.0	-0.7	3.1	5.6	-11.3
38	-13.5	-28.6	-7.9	58.2	27.1	-16.5
39	6.8	-12.0	-5.9	6.9	-8.3	24.4
40	-19.6	-32.7	-15.0	-5.1	-8.9	36.4
41	1.0	6.6	8.7	-22.0	8.5	-16.9
42	4.6	12.4	-0.9	70.1	10.7	2.0
43	95.2	41.8	138.2	120.3	28.9	75.7

Comparing the three figures reveals that volatility in prison sentence severity was highest in regions where volatility in monetary penalties was lowest. This is especially the case if cells with offense level 7 or lower are excluded. Excluding these cases makes sense, since these cells largely constitute "Zone A" of the sentencing grid, where the guidelines explicitly specify the option of zero months of prison. Taken together, these figures provide initial evidence that in terms of severity, monetary penalties function as both a substitute and a supplement to prison. The only area in which

prison sentences tend to decrease at least six months in severity is that below the "wedge," yet monetary penalties increased somewhat here – a negative relationship supporting the substitute hypothesis. However, the overall pattern reveals increasing severity for both monetary penalties and prison, which supports the notion that the former are supplementing the latter. Indeed, contrary to prevailing theory of monetary penalty use, these descriptive statistics are generally more supportive of the supplement rather than the substitute hypothesis.

This approach to comparing severity is useful for outlining the relationship between the two sanctions. However, it compares the sanctions on two separate scales: dollars and months. To achieve the goal of understanding the relationship between the two sanctions, we need to be able to directly compare the severity and likelihood of both sanctions. Yet, comparing the severity of prison to the severity of monetary penalties is complicated.

For one, the two sanctions are meant to achieve and have the capacity to achieve different canonical goals of punishment. While both can punish and deter, only prison can incapacitate. Conceptually, the two sanctions are difficult to compare because they entail different forms of deprivation. Prison deprives an individual of liberty and monetary penalties deprive a person of money.[34] Comparing the severity of the two sanctions is also difficult because how punitive each is ultimately depends on the recipient of the sanction. Yet, the few studies that ask offenders to compare prison to monetary penalties find inconsistent ratings of their punitive capacity that vary on the basis of race and gender (e.g. Wood & May 2003; Wood and Grasmick 1999). The difficulty in comparing is evident in the tendency of scholars to speculate about how punitive monetary penalties are (e.g. Kahan 1996). Despite these obstacles, some type of comparison of severity is necessary to accurately assess how monetary penalties relate to prison in sentencing.

The essence of these complications is that there is no stable metric of money as punishment on which to ground assessments of severity across individuals[35] – be they policy-makers or offenders. The most promising option, then, is to turn to empirics. As mentioned above, calculating the value of a month in prison is one way researchers have specified the trade-off between prison and monetary penalties. In an estimate that the researchers consider to overstate the effect, the exchange for white collar offenders is $4371 for a month of incarceration (Schanzenbach & Yaeger 2006). In an analysis of the relationship between prison and fines, Waldfogel (1995) finds that a month of prison is worth between $1500 and $2000. This type of calculation is useful for elucidating the joint relative value of prison and fines. However, to compare severity, we need to specify severity for the sanctions separately from one another. Using maximum severity as a benchmark facilitates just that.

In the post-Booker sentencing data, the maximum monetary sanction is over $300,000,000. I exclude cases with monetary penalties above $200,000 because the data have an extreme positive skew, with fewer than 100 cases out of 250,000 having penalties larger than this amount. Moreover, offenders receiving such large monetary penalties are substantively different from the modal offender and including them would limit the validity of the results for most offenders. In this truncated dataset, the maximum prison sentence is 300 months. Using the same cell-based averages as above, I calculate the percent of the maximum sentence that the average represents. That is:

SEVERITY = AVERAGE SENTENCE FOR CASES IN CELL/MAXIMUM SENTENCE FOR ALL CASES

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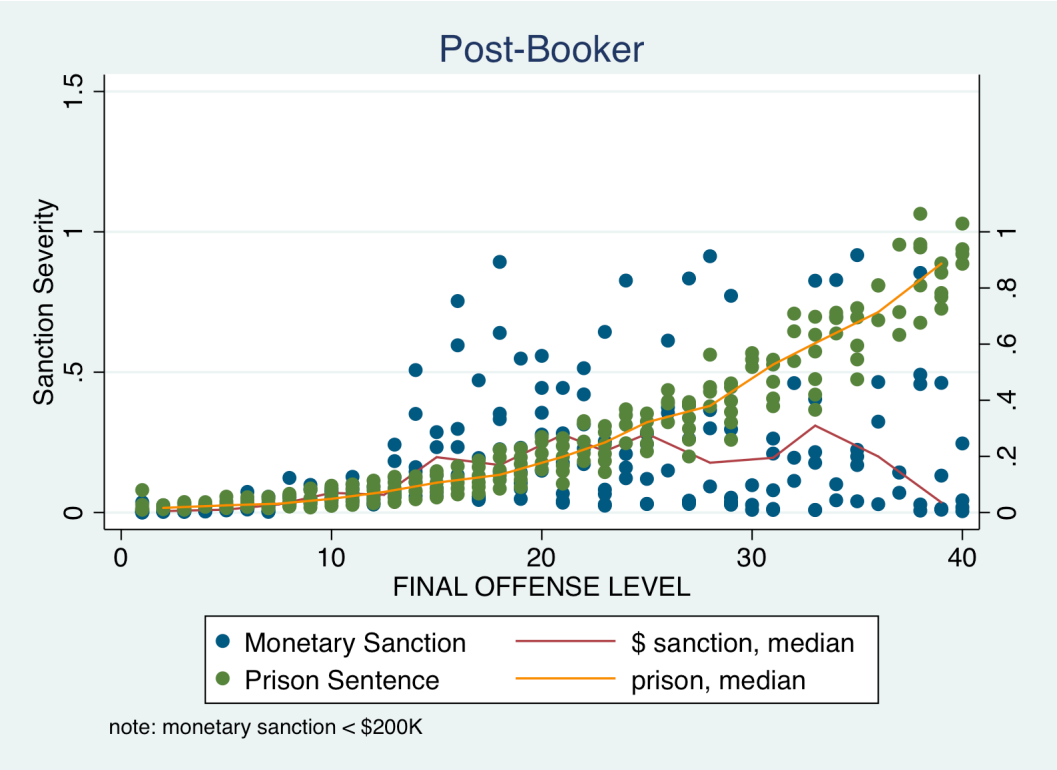
[34] I exclude forfeitures, which entail deprivation of property, from this discussion to be consistent with other studies of punishment and monetary sanctions.

[35] Explained at length in Paper 1.

Figure 1: Severity of sanctions by offense level

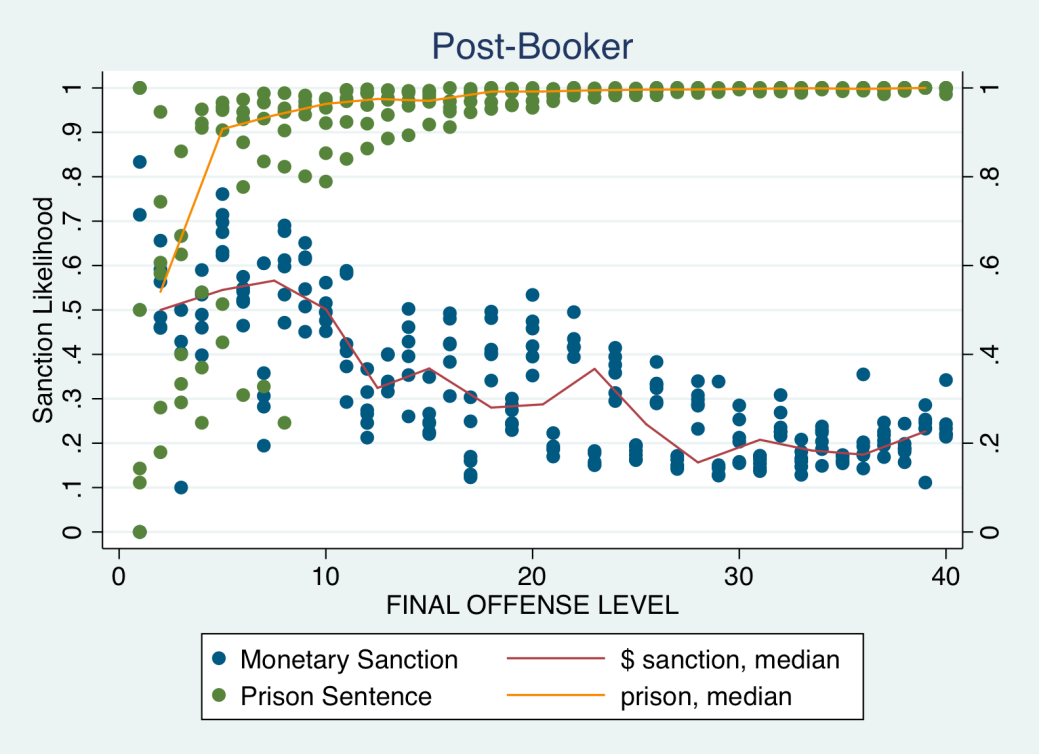


This formulation provides a method of directly comparing the percent of maximum severity for both monetary penalties and prison sentences. The drawback of this approach is that it does not address all of the complications noted above. It does not reveal individual assessments of how punitive each sanction is nor does it resolve the difference between a sanction that incapacitates and one that does not. Yet, it is a significant improvement on the status quo because this approach *does* base the comparison in evidence rather than conjecture and it uses parameters that are explicit and justified. Moreover, it considers the two sanctions separately, while placing them on the same scale (percentage).

These calculations for each sanction are shown in Figure 1. There are several pertinent findings here. One, prison sentences do indeed increase in severity as offense levels increase, which is precisely what the sentencing guidelines prescribe. However, beyond offense level 13, monetary sanction severity seems to have a much weaker relationship with offense level. Two, between offense level 13 and 22, monetary sanction severity tends to be higher than prison severity and the reverse is true above offense level 30. Three, the variation in sentence severity is much greater for monetary penalties than prison.

Assessing the likelihood of each sanction is much more straightforward and Figure 2 shows the likelihood of receiving either a prison sentence or a monetary sanction as a function of final offense level. Similar to the analysis of changes in severity above, this graph is based on the averages

Figure 2: Likelihood of sanctions by offense level



in each cell. For each offense level along the x-axis, there are six dots representing each of the six criminal history categories. The dots represent the average frequency of the sanctions. For example, for offense level 10, approximately half of offenders received a monetary penalties, while about 95% received a prison sentence. This figure illustrates the much larger variation in frequency of monetary sanction use as compared to prison outside of Zone A, where prison is mandatory. Above offense level 8, monetary sanction frequency ranges from 10% to almost 70% and the range for prison is 80% to 100%. It also shows that a vast majority of offenders above offense level 8 receive a prison sentence, regardless of offense level, while the frequency of monetary penalties decreases significantly as offense level increases – from approximately 55% at offense level 8 to about 20% at offense level 40. This figure also underscores the importance of examining likelihood and severity of sanctions separately, especially for monetary penalties. The high variation in likelihood of monetary sanction communicates much more information than the relatively low variation in likelihood of prison. Specifically, it indicates that the wider latitude in discretion for the use of monetary penalties provides an opportunity to observe a stronger influence of judicial discretion in these sanctions. If likelihood and severity were treated conjointly, then this information would be obscured.

Figure 2 shows some support for an efficiency model in which monetary penalties are a substitute for prison. As the likelihood of receiving a prison sentence increases, the likelihood of receiving a monetary sanction decreases. But clearly factors other than the use of prison affects the use of monetary penalties because monetary sanction prevalence continues to decrease even when prison use remains constant at 100%. This is partially explained by the ceiling effect in prison use, since it cannot exceed 100%. But incontrovertible proof of a strict substitute relationship would be that monetary sanction use dropped to zero when prison likelihood reaches 100%. Conversely, the pattern in severity shows that monetary penalties both supplement and substitute for prison sentences, depending on region of sentencing guidelines. From offense level 1 to offense level 25, the two sanctions seem to be supplements. Starting at offense level 26 through offense level 40, the relationship follows the pattern of the sanctions being

substitutes. These figures show that each aspect of sentencing follows quite different patterns in the present case, once again affirming the importance of considering severity and likelihood separately. They also suggest that whether or not monetary penalties are being used to supplement incarceration or replace it (in either likelihood or severity) varies significantly by region of the sentencing guideline grid. Importantly, these patterns suggest that both a substituting and supplemental role of monetary penalties exist when all offenders and offenders are simultaneously considered. To clarify the interaction between the two types of sanctions, theory and prior research indicate that both offender and offense characteristics must be taken into account.

Extralegal Factors & Departure Status

Prior scholarship provides reason to expect that extralegal factors and departure status are primary conditions determining when monetary penalties function as either a substitute or a supplement to prison. The literature on disparities in prison sentences find robust evidence that the extralegal factors of race and gender affect sentencing outcomes (see Mitchell 2005; Spohn 2000; Kleck 1981; and Green 1971 for detailed reviews; Koons-Witt 2002 on gender; Mustard 2001 sophisticated analysis of racial disparities). Scholarship exploring OPT has found an effect of wealth on the use of monetary penalties (Friedman 1981; Posner 1985; Polinsky and Shavell 1984). Studies of prison sentences imposed under sentencing guidelines typically find that departure status is a critical consideration in assessments of extralegal factors and sanction severity (Albonetti, 1997, 2002; Hartley, Madden, and Spohn, 2007; Johnson, Ulmer, and Kramer, 2008; LaFrenz and Spohn, 2006; Maxfield and Kramer, 1998; Stacey and Spohn, 2006; Steffensmeier and Demuth, 2000). What follows is a discussion and analysis of the influence of extralegal factors and departure status on monetary sanction use.

The extensive literature on disparities in the criminal justice system generally conclude that Black and Latino men are treated more punitively (see Spohn 2000 for a review). These groups are more likely to both be sentenced to prison and to receive longer sentences. The current overrepresentation of racial minorities in state custody is testament to the fact: in 2008, African-Americans comprised 38.1 percent, Whites were 35.5 percent, and Latinos were 18.7 percent (U.S. Dept. of Justice, 2011), even though African-Americans represent only 12.6 percent of the US population, Whites (non-Hispanic) 63.7 percent, and Latinos, 16.3 percent (U.S. Census Bureau, 2010). Despite the copious documentation, analysis, and interpretation of racial disparities in sentencing, mapping these findings onto monetary penalties is problematic, because of evidence that wealth affects the assessment of monetary penalties. Specifically, there is evidence that fines are related to income (Lott 1992), net worth (Weisburd et al 1990), and ability to pay (Waldfogel, 1995). Yet, in the US, Black and Latino individuals have far less wealth than White individuals, on average. According to the Pew Research Center, White household had a median wealth of $113,149 in 2009; for Hispanic households it was $6,325 and it was $5,677 for Black households (Kochhar, Fry & Taylor, 2010). Moreover, the sentencing guidelines provide for greater judicial discretion in assessing monetary penalties. Judges are explicitly allowed to consider ability to pay (for fines, but not restitution) and the effect of a monetary sanction on an offender's dependants. A contribution of the present analysis is a test of support for the well-founded expectation that Black and Latino offenders receive more punitive penalties in light of evidence that wealth trumps all.

There are two types of departures from the sentencing guidelines that result in a reduced prison sentence.[36] One is a "substantial assistance" departure (5K1.1) are initiated by the prosecutor for offenders who are helpful to the prosecution. The other is a discretionary judicial departures (5K2), which is commonly referred to as a "downward departure." There are both theoretical and empirical reasons to expect that departure status plays a significant role in determining monetary sanction likelihood and severity.

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[36] Upward departures are rare – occurring in approximately 1% of cases each year.

Consistent with the two-stage aspect of sentencing outcomes, focusing on departures accounts for pure discretion in the sentencing stage (as opposed to all the decisions and opportunities for discretion prior to sentencing). It also provides for a clear and direct assessment of the trade-off between prison and fines. Empirical assessments of departures from the guidelines (for prison sentences) typically find a significant effect of extralegal factors, with Black and Latino offenders often at a disadvantage (e.g. Albonetti, 1997, 2002; Hartley, Madden, and Spohn, 2007; Johnson, Ulmer, and Kramer, 2008; LaFrenz and Spohn, 2006; Maxfield and Kramer, 1998; Mustard 2001; Stacey and Spohn, 2006; Steffensmeier and Demuth, 2000). Because the centrality of departure status is indicated from both theory and practice, it is a focus of the present analysis.

Data & Methodology

The data come from the Monitoring of Federal Criminal Sentences files collected by the US Department of Justice and maintained by the Inter-university Consortium for Political and Social Research for the years. I combine the four files for the years 2005 (post-Booker) through 2008. The original dataset records of all federal criminal cases sentenced under the Sentencing Guidelines and Policy Statements of the Sentencing Reform Act of 1984 between October 1, 2005, and September 30, 2008.

Table 2: Average Monetary Sanction Amount as a Function of Proportion Incarcerated, post-Booker

no prison (~10% of all cases in study)		**prison sentence** (~90% of all cases in study)	
proportion receiving monetary sanction	*avg. amount*	*proportion receiving monetary sanction*	*avg. amount*
61.3%	$51,292	26.7%	$102,207

Table 3: Average Sanction Frequency & Severity by Extralegal Factors, post-Booker

	Monetary Penalties			**Prison**	
	Frequency	Restitution	Fine	Frequency	Prison Sentence (in months)
White	40.6%	$202,505	$3,083	80.8%	58.0
Black	30.0	33,738	834	89.0	85.4
Hispanic	14.0	29,243	982	94.0	61.5
Other	36.2	85,388	7,544	82.9	53.9
Male	27.3%	97,270	2,192	90.2	72.2
Female	42.5	86,782	1,062	69.6	34.8
Total	**29.6**	**95,702**	**2,023**	**87.1**	**67.3**

Table 4: Average Sanction Frequency & Severity by Departure Status, post-Booker

	Monetary Penalties			**Prison**	
	Frequency	Restitution	Fine	Frequency	Prison Sentence (in months)
Substantial Assistance	27.3%	$155,759	$1,608	86.6%	59.6

Downward Departure	32.9	140,297	4,688	81.5	60.4
Within Range	30.6	65,146	1,552	88.1	73.0

Table 2 shows the proportion receiving incarceration and the corresponding proportion receiving a monetary sanction and the average amount of the sanction. Those with no prison sentence are twice as likely to receive a monetary sanction, but the average amount of the sanction is around half as large compared to those who do receive a prison sentence. These tabulations do not account for departures in monetary penalties themselves nor the key criminological factors that influence sentencing. I account for these factors in the following hierarchical linear models.

Analysis of sentencing outcomes requires avoiding the problems in inference that can arise from failing to recognize the nested nature of sentencing data. That is, because of a variety of contextual factors, sentences will be correlated at the level of the judge, the state, the district and even the circuit. Hierarchical models[37] have been used in recent custodial sentencing research with insightful results (see Johnson, 2006 for a thorough explanation[38]; see Britt, 2000; Kautt, 2002; Ulmer and Johnson, 2004 for examples of its application). In the present case, hierarchical logistic regressions will be used to examine predictors of monetary sanction likelihood and hierarchical linear models will examine predictors of monetary sanction amount.

The Level 1 (full model) is:

Amount of Fine [or Prob(Fine=1)]= β_{0j} + β_1(prison sentence) + β_2(criminological factors) + β_3*(sentencing factors) + β_4*(extralegal factors) + β_5*(extralegal factors x offense type) + *r*

The Level 2 model is:

$\beta_0 = \gamma_{00} + \gamma_{01}$*(caseload composition) + μ_0

$\beta_1 = \gamma_{10}$

$\beta_{29} = \gamma_{290}$

In the Level 1 model, the dependent variable for likelihood is an indicator variable coded "1" if the offender received any monetary penalties. For severity, the dependent variable is a log transformation of the total amount of the monetary sanction, since this variable is skewed. Models 1 and 5 have criminological factors as the only predictors. These include criminal history and offense level – the two factors determining an offenders location on the sentencing grid, in addition to three of the standard categories of offense: white collar, violent, and drug. As explained above, most studies of monetary penalties focus on white collar offenses, such as fraud, based on theory indicating that monetary penalties are most likely to be suitable substitutes for incarceration in these cases. By the same rationale, it is important to identify the use of monetary penalties in violent crimes, since theory suggests that these penalties are less suitable for violent crimes. Drug crimes are specifically identified because they are one of the most prevalent types of offenses

[37] See Hierarchical Linear Models: Applications and Data Analysis Methods (Raudenbush and Bryk 2002) for an excellent explanation of their use. HLM 6 Hierarchical Linear and Nonlinear Modeling. All HLM analyses conducted with HLM6 software written by Stephen Raudenbush, Tony Bryk, & Richard Congdon; Scientific Software International, Inc. (c) 2000.

[38] "Overall, then, HLM corrects standard errors by accounting for the nested nature of sentencing data, adjusts statistical significance tests to reflect the appropriate degrees of freedom, and provides the researcher with important tools for assessing the random variation in individual-level sentencing factors across judges and counties." (Johnson 2006, pg. 277)

at the federal level and it is standard practice to place these crimes in their own category in studies of incarceration.

Models 2 and 6 add sentencing factors to the model and include disposition (guilty plea or not) and the presumptive sentence minimum and maximum. There are slight changes in the guidelines each year, so it is important to ensure that each case has the appropriate comparison cases. Disposition has the potential to influence sentencing outcomes, so it is included as a control. Including a control for presumptive sentence helps to limit any undue influence of the tendency for sentences to be more likely or more severe within certain cells of the sentencing guidelines. This is similar to the cell-based analysis used above and in Mustard (2001). Models 3 and 7 include the extralegal factors of race and gender. Models 4 and 8 include two-way and three-way interactions of race, gender, and offense type. This attention paid to the intersection of race, ethnicity, and gender is warranted by evidence that failing to do so risks misidentifying or under-estimating racial disparities in sentencing (e.g. Ulmer et al 2012; USSC 2010). Modes 9 through 16 include prison likelihood and severity as predictors. Likelihood is an indicator variable coded "1" if any prison sentence was given. Severity is number of months of a prison sentence.

For all models, White, male offenders of non-drug, -violent, or -white collar crimes are the reference category (see Appendix A for complete list of offenses in the file). Non-indicator predictors (i.e. variables taking on a values other than zero or one) are group mean centered. The "other race" category, representing less than 5% of the cases, is excluded from this analysis. In the Level 2 model, district is the defining characteristic. There are 94 districts in the federal system. The district's average number of cases is included to account for overall caseload, since this has been found to be an important contextual factor (e.g. Ulmer and Kramer 1996). The same is true of caseload composition (percent of caseload that are immigration, violent, property, or drug cases), so this is included as well (e.g. Johnson 2006). To avoid the risk of overstating the effect of extralegal factors on monetary sanction amount, individuals not receiving a monetary sanction are excluded from the analysis of monetary sanction amount (see Ulmer et al 2012 for a comprehensive discussion of a similar issue with prison sentence length; see also Johnson 2006).

The statistical issues inherent in attempting to separately assess interdependent sentencing outcomes of likelihood and severity has been discussed at length by other scholars (e.g. Ulmer et al 2011; Johnson 2006). A standard approach is to employ the Heckman two-step correction, which accounts for the fact that sentence severity is dependent on having a sentence at all (likelihood). The alternative is to include those who include those who received no prison sentence in the analysis of severity – essentially including many cases that have zero months of incarceration. Because these zeros significantly skew the distribution of the data, standard regression assumptions are violated. As a result, the estimates can be unreliable. Indeed, Ulmer et al's (2011) re-analysis of the same data used by the US Sentencing Commission (2010) found critical differences in effect size and inference, once they removed offenders with zero months of incarceration from the analysis. Since the present goal is to assess likelihood and severity as independently as possible, the models use the full dataset for analyses of likelihood and only those who receive the sanction (prison or monetary penalty) for analyses of severity. This approach allows for maximizing the amount of data used, while significantly decoupling the linked aspects of sentencing outcomes.

Results and Discussion

All findings reported are statistically significant at the $p<.001$ level, unless otherwise noted. See Appendix A.

Criminological Factors

For every unit increase in criminal history, likelihood and amount of monetary sanction decreases of monetary sanction decreases slightly, 5% and 1% respectively. Offense level has no effect on severity, but is associated with a 2% decrease in odds of receiving a monetary sanction. Increased criminal history tends to decrease severity by about 9%, while offense level does not have a significant effect. The effect of criminal

history and offense level are consistent across all models. A clear pattern of the importance of offense type is evident across all models. Specifically, white collar crime offenders are far more likely (at least 340%) to receive monetary penalties and these sanctions are much higher (at least 261%) than sanctions for other offenses. Conversely, violent crime offenders may be more likely to receive this sanction and the sanction may be slightly larger, although the coefficients are not statistically significant. Offenders of drug crimes have at least 61% lower odds of receiving a monetary sanction and when they do receive a monetary sanction, the amount is at least 111% lower. The pronounced finding of increased likelihood and severity of monetary penalties for white collar crimes comports with prior analyses that presumed these sanctions to be especially appropriate for offenses like fraud (e.g. Waldfogel 1995). The indication that monetary penalties may be more likely and more severe for violent crime offenders suggests that these sanctions may be being used to supplement prison sentences. However, even though the coefficients are consistent across the models, they are not statistically significant, so additional inquiry into this topic is required. The finding that likelihood and severity are reduced for drug crimes is particularly interesting in light of the origins of monetary penalties in the Alternative Sanction Movement (ASM) of the 1980's and 1990's. A central idea of the ASM was to reduce the prevalence and related cost of prison by punishing offenders – especially non-violent drug offenders – with alternative sanctions such a fines. Of course, the severity of the drug offense necessary to be prosecuted and sentenced in the federal system far exceeds the target offenses of the ASM. So, the pronounced *lack* of monetary sanction use for drug offenses suggests that offense severity is indeed an important factor. This may be the case even though "offense level" within these federal cases has only a minimal effect.

Sentencing Factors

Offenders who plead guilty, as opposed to being found guilty through a trial, are less likely to receive a monetary sanction and the sanction they do receive is lower. The effect of presumptive sentence is unremarkable, since it reflects the general increase of likelihood and severity of sanctions as the offender's position in the sentencing guideline grid moves from the upper left-hand corner to the lower right-hand corner. The effect of departure status – substantial assistance and downward departure – provides the starkest evidence of a trade-off between prison and monetary penalties. Those whose prison sentence is reduced by request of the prosecution have between 10% and 17% higher odds of receiving a monetary sanction, and the sanction they receive is between 11% and 21% larger than those without a substantial assistance departure. Similarly, those with a prison sentence reduced by the prerogative of the sentencing judge have between 5% and 8% ($p<.05$) higher odds of receiving a monetary sanction and the amount of the sanction is between 10% and 17%. Because this result is based on all categories of offenses, it extends the findings from prior work on fraud offenders and suggests that the trade-off between prison and monetary penalties is a more general phenomenon.

Extralegal Factors

In the models (3 and 7) that have controls for female, Black, and Latino, there is a clear direct effect of race and gender. Without interaction terms for offense type, women have 15% lower odds of receiving a monetary sanction, Black men have 28% lower odds, and Latinos have 60% lower odds. The monetary penalties for Black men are 46% lower and for Latinos they are 3% higher. The difference in severity for women (17% less) is not statistically significant at the $p<.05$ level. On their surface, these findings suggest that the typical pattern of racial disparities disadvantaging Black and Latino offenders is reversed in the case of monetary penalties. However, because there are such strong effects of offense type, it is important to consider how extralegal factors interact with criminological factors. The models (4 and 8) that include these interactions reveal the importance of doing so.

For white collar crimes, both the likelihood and severity of monetary penalties is significantly increased for women: their odds are 133% higher and they have 56% larger penalties. While the likelihood and severity is less for Black offenders of white collar crimes, within the group of Black offenders, a similar pattern holds for women and men: 23% higher odds for Black women and 188% larger penalties than Black men. The same trend is apparent within Latina and Latino offenders, although both groups are less likely than the reference group to receive a monetary sanction (33%-35% lower odds) for white collar crimes and the monetary sanction is much smaller (228%-260% smaller).

In the case of violent crimes, the lack of a significant effect of this offense type seen above remains for the interaction terms. For likelihood only the term for *violent x female* (216% as likely) is significant. For severity, only *violent x female (*139% higher) and *Black x female* (-176% lower) are significant. But these results do suggest that the trade-off between prison and monetary penalties are more likely to favor the latter in the case of women. For drug offenses, all combinations of race and gender are less likely to receive a monetary sanction and the monetary sanction they do receive is less severe. This underscores the finding above that monetary penalties are not used as extensively for drug crimes compared to other offenses.

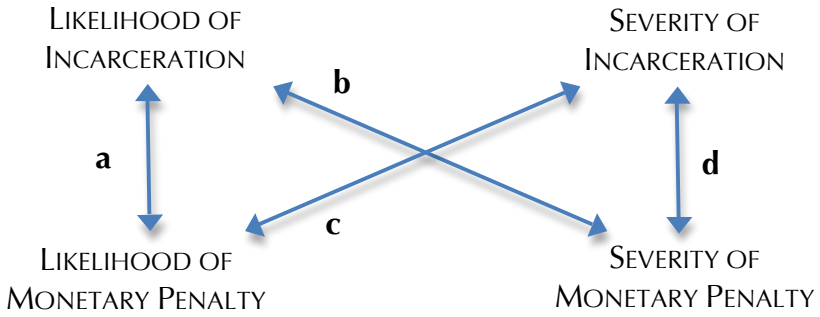
Prison Likelihood and Severity

Models 9 through 16 include likelihood and severity of prison sentence. The models show no effect of prison severity on monetary sanction severity or monetary sanction likelihood (for every month of additional prison sentence, there is a 0% change in the odds of receiving a monetary sanction). However, there *is* an effect of prison likelihood on both the likelihood and severity of monetary penalties. Receiving a prison sentence is associated with monetary penalties that are 37% to 42% the amount of those who do not receive a prison sentence (i.e. if you do not go to prison, you will receive a higher monetary sanction). And for those with a prison sentence the odds of receiving a monetary sanction are 48% to 60% lower than those who do not (i.e. if you do go to prison, your monetary sanction will be lower). Thus, the direct effect of prison on monetary sanction use indicates a trade-off between the two along the dimensions of both likelihood and severity. The relationship between likelihood is consistent with an efficiency model of the two sanctions. However, this analysis provides additional insight into the mechanism of this trade-off, since prison is consequential to both likelihood and severity of monetary penalties.

A comparison of changes in the effect of the other predictors when prison is included offers an even more nuanced insight into the relationship. The overall pattern of criminological, sentencing, and extralegal factors is largely the same when the outcome variable is likelihood of monetary sanction. The most notable difference is that in the full model, the coefficient (37% lower odds) for *Black female x violent* becomes statistically significant. When the outcome is severity of monetary sanction, there are important differences when prison variables are included. Guilty plea no longer has an effect. The effect of downward departure increases by nine percentage points in the full model. The severity of monetary penalties assessed to Black males drops to being 10% lower than the reference group as compared to being 46% lower when prison is not accounted for. The effect of Latino drops by two-thirds, from -103% to -32%. All of the estimates of the effects of the two-way and three-way interactions change when prison is included in the model. The main conclusion to be drawn from this pattern of changes is that prison likelihood and severity have more extensive effects on monetary penalty severity than on monetary sanction likelihood. This finding suggests that models in the OPT framework that exclusively focus on likelihood of each sanction neglect the importance of severity at the risk of mischaracterizing the relationship between prison and monetary penalties.

Conclusion

By exploiting the structure of the sentencing guideline grid, an assessment of the overall pattern of changes in severity post-Booker provides preliminary support for monetary sanctions functioning as both a supplement and a substitute to incarceration. Closer examination of the severity of both sanctions as a function of offense level shows that the variation in sentence severity is significantly larger for monetary penalties than prison. While the sentencing guidelines mandate increased severity of both sanctions with increasing offense level, it is notable that the relationship *between* severity of each sanction also varies significantly by offense level. That is, for some offense levels monetary sanction severity tends to be higher than prison severity and yet the reverse is true for other offense levels. A similar investigation of likelihood reveals that there is much greater variation in likelihood of monetary penalty use than prison that, while somewhat reflective with the parameters of the sentencing guidelines, challenges the notion that there is a strict substitute relationship between the two sanctions. Importantly, the dissimilar results of the separate analyses of severity of likelihood underscores the importance of also considering the two aspects of sentencing independently from one another. However, it is equally important to simultaneously consider the factors known to influence sentencing outcomes such as race, gender, and departure status. Using hierarchical linear models permits doing so in addition to accounting for the nested structure of sentencing data. The results of these models further specify the relationship between monetary penalty and prison severity and likelihood.



The HLM analysis provides several key insights. One of which is that there is empirical support for the links in the above figure to represent both positive and negative relationships. These relationship vary with offender and offense characteristics. Consistent with prior work focused on white collar offenders, the present results indicate that white collar crime offenders are significantly more likely to receive monetary penalties and the penalties they receive are much larger than penalties for other offenses. However, by including race/gender/offense type interaction terms, this analysis reveals that for white collar crimes, women tend to receive increased likelihood *and* severity of monetary penalties. On the other hand, it shows that likelihood and severity of monetary penalties tend to be *reduced* for drug crimes, regardless of race and gender. The analysis of departure status reveals that both types of departure (those initiated by the prosecutor and those initiated by the judge) are associated with increased likelihood and increased severity of monetary penalties. This result indicates a substitution effect for the specific cases in which prison severity is being explicitly reduced. A main contribution of this analysis is to expand the focus beyond fraud offenders, as is typical in the literature. An analysis of prison likelihood and severity shows a much more substantial effect on monetary penalty severity than likelihood. This finding, in particular, underscores what is missed by an exclusive focus on likelihood. Importantly, this analysis does not address the difference between the objective magnitude of the monetary penalty and the subjective loss, suffering, or harm that the offender experiences. This is an issue warranting further investigation by scholars interested in advancing just sentencing policy.

In terms of the main goal explained at the outset, a variety of analytical approaches and model specifications provide robust evidence that monetary penalties function as both a substitute and a supplement to incarceration. Moreover, this analysis clarifies some of the conditions under which each relationship occurs. Both legal and extralegal factors are influential, suggesting a need for further refinement of theory to illuminate the interaction between the two. The proposition that both severity and likelihood of each sanction should be taken into account finds abundant support here. In particular, the severity of monetary sanctions is the domain of greater post-Booker volatility, larger effect of extralegal factors, and is the factor most affected by prison use. The main conclusion to be drawn is that failing to consider severity in addition to likelihood risks mischaracterizing the relationship between prison and monetary penalties. Our understanding – and efficient and equitable use – of a ubiquitous and consequential criminal sanction suffers as a result.

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Appendix A

HLM: y = probability of monetary sanction

LIKELIHOOD	*CRIMINOLOGICAL*	*SENTENCING*	*EXTRALEGAL FACTORS*	
	odds ratio	odds ratio	odds ratio	odds ratio
	Model 1	2	3	4
guideline version				
criminal history	.95***	.95***	.96 ***	.94***
offense level	.98***	.98***	.98 ***	.98***
guilty plea		.85***	.86***	.87***
presumptive sentence – min.		1.00***	1.00***	1.00***
presumptive sentence – max.		1.00***	1.00***	1.00***
substantial assistance		1.17***	1.10***	1.11
downward departure		1.08*	1.03	1.05***
violent	1.25	1.27	1.17	
white collar	4.43***	4.40***	4.45***	
drug	.39***	.39***	.44***	
female			.85***	
Black male			.72***	
Latino			.40***	
white collar * female				5.88***
white collar * male				4.55***
white collar * Black female				1.53***
white collar * Black male				1.30***
drug * female				.39***
drug * male				.61***
violent * female				2.16***
violent * male				1.28
drug * Black female				.66***
drug * Black male				.66***
violent * Black female				.42
violent * Black male				.71
white collar * Latina				.35***
white collar * Latino				.33***
drug * Latina				.52***
drug * Latino				.38***
violent * Latina				.68
violent * Latino				.70
Intercept	.41***	.46***	.56	.44***
Level-2				
avg. # cases				
avg. % caseload:	.16	.17	.20***	.24
white collar	.25	.26	.29***	.26
drug	21.1***	21.7***	24.0***	22.72***
immigration	.01***	.01***	0.02	.00***

**p<.05; **p<.01; ***p<.001;*

HLM: y = log(average monetary sanction amount)

SEVERITY	*CRIMINOLOGICAL* coefficient Model 5	*SENTENCING* coefficient 6	*EXTRALEGAL FACTORS* coefficient 7	coefficient 8
guideline version				
criminal history	-.08***	-.09	-.09 ***	-.10***
offense level	.00	-.01***	-.01	-.01
guilty plea		-.21***	-.19***	-.61
presumptive sentence – min.		.00***	.00***	.00
presumptive sentence – max.		.00***	.00***	.00
substantial assistance		.21***	.11***	.16***
downward departure		.17***	.10***	.13***
violent	.20	.22	.08	
white collar	3.66***	3.65***	3.61***	
drug	-.1.29***	-1.28***	-1.11***	
female			-.17 *(p=.076)*	
Black male			-.46***	
Latino			-1.03***	
white collar * female				4.28***
white collar * male				3.72***
white collar * Black female				.66***
white collar * Black male				.53***
drug * female				-1.35***
drug * male				-.88***
violent * female				1.39***
violent * male				.22
drug * Black female				-.32***
drug * Black male				-.40***
violent * Black female				-1.76***
violent * Black male				-.47
white collar * Latina				-2.28***
white collar * Latino				-2.60***
drug * Latina				-.45***
drug * Latino				-.77***
violent * Latina				-.55
violent * Latino				-.61
Intercept	3.22***	3.32***	3.45***	3.33***
Level-2				
avg. # cases				
avg. % caseload:	-2.80	-2.72	-2.38	-2.39
white collar	-.233	-.2.29	-2.11	-2.41
drug	2.97	3.01	3.09	2.90
immigration	-6.07	-6.02***	-5.0	-4.94

**p<.05; **p<.01; ***p<.001;*

HLM: y = probability of monetary sanction

LIKELIHOOD	*CRIMINOLOGICAL FACTORS*	*SENTENCING FACTORS*	*EXTRALEGAL FACTORS*	
	Model 9	*10*	*11*	*12*
	odds ratio	odds ratio	odds ratio	odds ratio
prison likelihood	0.40***	0.42***	.45 ***	.44***
prison severity (months)	1.00***	1.00***	1.00 ***	1.00***
criminal history	.97***	.97***	.96 ***	.95***
offense level	.98***	.98***	.98 ***	.98***
violent	1.29	1.13	1.21	
white collar	4.33***	4.29***	4.38***	
drug	.40***	.40***	.45***	
guideline version				
guilty plea		.94	.96	.96
presumptive sentence – min.		1.00	1.00	1.00
presumptive sentence – max.		1.00***	1.00***	1.00***
substantial assistance		1.18***	1.13***	1.13***
downward departure		1.05	1.01	1.03
female			.80***	
Black male			.73***	
Latino			.42***	
white collar * female				5.42***
white collar * male				4.45***
white collar * Black female				1.49***
white collar * Black male				1.37***
drug * female				.39***
drug * male				.62***
violent * female				2.13***
violent * male				1.33
drug * Black female				.65***
drug * Black male				.64***
violent * Black female				.37***
violent * Black male				.69
white collar * Latina				.35***
white collar * Latino				.35***
drug * Latina				.55***
drug * Latino				.40***
violent * Latina				.71
violent * Latino				.70
Intercept	-0.28***	0.74***	.83***	.68***
Level-2				
avg. # cases				
avg. % caseload: violent	-1.90	0.16	.19***	.20
white collar	-1.51	0.23	.27	.22
drug	2.97	20.2***	22.94***	19.70***
immigration	-4.79	.01	.02	.02

**p<.05; **p<.01; ***p<.001;*

HLM: y = log(average monetary sanction amount)

SEVERITY	*CRIMINOLOGICAL*	*SENTENCING*	*EXTRALEGAL FACTORS*	
	Model 13 coefficient	*14* coefficient	*15* coefficient	*16* coefficient
prison likelihood	.37***	.40***	.42 ***	.41***
prison severity (months)	.00	.00	.00	.00
criminal history	-.12***	-.12***	-.12 ***	-.13***
offense level	.06***	.06***	.06 ***	.06***
violent	-.37***	-.35***	-.38 ***	
white collar	1.61***	1.59***	1.59***	
drug	-.95***	-.94***	-.90	
guideline version				
guilty plea		-.07	-.07	-.07
presumptive sentence – min.		.00	.00***	.00
presumptive sentence – max.		.00	.00	.00
substantial assistance		.18***	.17***	.17***
downward departure		.22***	.21***	.22***
female			.07	
Black male			-.10***	
Latino			-.32***	
white collar * female				1.67***
white collar * male				1.56***
white collar * Black female				.04
white collar * Black male				.15***
drug * female				.08
drug * male				-.31***
violent * female				.02***
violent * male				-.36***
drug * Black female				.08
drug * Black male				-.31***
violent * Black female				-1.06***
violent * Black male				-.09
white collar * Latina				-.17
white collar * Latino				-.41***
drug * Latina				-.54***
drug * Latino				-.39***
violent * Latina				.17
violent * Latino				-.36
Intercept	8.49***	8.43***	8.43***	8.44***
Level-2				
avg. # cases				
avg. % caseload: violent	-1.34***	-1.27***	-1.22	-1.22
white collar	-.93	-.86	-.82	-.92
drug	-1.78***	-1.79***	-1.75	-1.80***
immigration	-.43	-.43	1.06	-.18

**p<.05; **p<.01; ***p<.001;*

Appendix B
Offenses, in decreasing order of frequency (post-Booker)

Drugs: trafficking
Firearms: use
Fraud
Larceny
Pornography prostitution
Bank robbery
Forgery/counterfeiting
Admin just
Money laundering
Traffic viols other offns
Racketeering
Tax offenses
Assault
Embezzlement
Drugs: simple possession
Drugs: communication facilities
Sexual abuse
Offenses in prisons
Bribery
Environmental, game, fish, and wildlife
Gambling/lottery
Arson
Food and drug offenses
Civil rights offenses
Murder
Auto theft
Manslaughter
Kidnapping / hostage
Burglary/breaking and entering
National defense offenses
Antitrust violations
Total

< $1000
$1000 to $5000
$5001 to $10,00
>$10,00

Appendix C
Average Monetary Sanction: pre-Booker

	Criminal History					
Offense Level	I	II	III	IV	V	VI
1	5,134	1,233	386	322,362	167	3,204
2	5,345	1,673	0	.	200	0
3	1,036	946	523	516	743	319
4	2,374	358	297	1,329	1,157	3,515
5	3,599	2,353	1,075	672	856	676
6	6,659	2,026	1,657	1,122	4,069	2,221
7	6,284	3,443	2,815	1,979	2,841	2,656
8	8,052	4,342	5,964	998	1,022	1,168
9	10,543	9,859	12,931	5,827	5,096	5,181
10	17,660	9,804	7,986	4,366	7,218	6,015
11	15,940	13,925	8,887	12,096	9,069	10,924
12	43,496	27,638	15,798	10,685	8,611	8,319
13	22,169	14,069	9,734	7,620	8,381	9,338
14	44,718	20,185	23,725	20,129	22,640	18,633
15	76,780	54,265	41,988	29,279	20,170	13,012
16	57,295	23,722	27,140	19,657	16,320	22,297
17	137,869	76,001	61,976	69,864	47,719	44,551
18	73,953	29,322	15,526	14,572	11,176	14,441
19	190,833	148,128	86,325	43,060	84,039	55,845
20	114,702	32,168	33,160	37,769	8,520	16,700
21	242,914	85,940	90,790	35,431	47,532	43,399
22	88,406	90,071	41,620	15,634	5,016	23,738
23	309,155	118,249	156,359	34,163	31,551	14,722
24	127,541	28,201	17,290	18,995	34,387	8,923
25	369,840	130,201	64,562	53,277	36,381	27,115
26	98,008	22,530	26,669	10,152	5,058	9,718
27	381,379	75,233	148,458	64,056	16,672	83,507
28	45,400	65,135	14,171	12,217	26,396	34,909
29	421,274	217,168	81,422	35,601	13,564	9,579
30	66,371	12,109	19,602	15,536	2,133	4,190
31	304,440	30,337	306,779	3,490	8,624	9,614
32	141,947	50,079	43,145	4,182	35,979	3,654
33	362,262	110,926	14,532	18,701	61,699	15,121
34	52,302	110,224	49,984	5,074	3,427	3,995
35	295,080	1,674	17,020	374,977	20,715	4,609
36	255,151	6,772	5,569	1,427	922	13,679
37	250,631	614,456	3,910	1,866	1,705	34,741
38	353,872	271,130	33,045	1,456	1,960	10,193
39	402,895	126,961	1,928	3,655	1,071	906
40	545,337	554,220	29,659	1,322	1,097	1,946
41	560,885	117,649	6,682	21,969	10,886	1,162
42	388,273	807,855	9,571	1,431	350	2,807
43	11,813	17,014	6,187	17,084	1,797	5,157
	884,108	20,271	5,988	14,097	3,152,776	3,778

Average Monetary Sanction: post-Booker

	Criminal History					
Offense Level	I	II	III	IV	V	VI
1	7,299	736	487	1,000	0	0
2	5,111	1,032	755	1,790	439	1,940
3	6,596	590	3,392	448	2,123	1,299
4	3,948	1,346	1,927	734	934	879
5	5,038	2,021	2,529	1,966	1,485	1,773
6	14,680	3,182	2,141	2,402	2,663	2,773
7	11,230	4,832	1,440	453	1,028	890
8	12,199	24,643	10,680	5,238	6,727	6,396
9	16,124	16,615	9,433	19,668	8,065	6,550
10	17,262	14,785	15,402	10,547	8,522	9,378
11	25,425	20,133	12,174	16,465	13,267	7,912
12	18,119	12,196	9,403	5,660	7,284	6,000
13	36,612	25,105	15,592	13,105	48,349	11,254
14	70,241	101,481	32,336	21,516	29,060	11,614
15	57,263	26,597	17,413	11,509	14,573	46,568
16	150,676	119,146	59,595	26,777	210,791	46,636
17	94,184	38,819	11,473	8,949	11,160	9,865
18	178,555	127,973	66,513	70,414	28,838	45,079
19	109,676	46,116	28,573	21,018	16,808	9,676
20	384,779	111,639	71,077	55,544	88,795	29,763
21	88,799	56,429	35,495	8,250	13,538	7,001
22	352,830	102,831	84,142	34,488	62,737	45,660
23	128,702	50,708	13,148	4,874	5,766	16,290
24	299,373	227,282	165,252	41,741	24,412	32,011
25	207,580	56,106	48,700	23,935	6,046	6,142
26	518,437	247,560	70,891	122,478	75,035	29,905
27	166,755	52,436	76,269	8,444	6,072	7,746
28	334,599	301,284	182,603	59,990	18,553	72,995
29	154,418	59,302	5,543	10,559	7,894	6,014
30	722,309	333,537	215,976	19,470	1,880	5,479
31	271,964	52,690	41,971	15,865	1,814	2,601
32	426,766	242,418	92,205	222,463	39,023	22,534
33	165,143	1,760	80,830	43,002	1,839	35,399
34	754,236	408,409	139,049	20,149	165,648	8,715
35	329,710	183,389	33,807	44,652	7,989	39,930
36	557,686	542,145	64,713	93,000	5,934	398,982
37	490,137	816,433	28,531	14,055	683,661	28,465
38	523,530	98,212	170,694	5,736	91,535	1,345
39	1,148,402	92,382	2,751	2,035	2,125	26,266
40	498,057	1,505,644	3,721	8,686	49,212	931
41	627,478	1,616	9,098	1,209	123,061	2,640
42	1,313,025	95,795	22,789	3,153	28,541	1,452
43	1,761,474	2,802,791	12,810	22,383	2,461,136	5,593

Difference in Average Prison Months: pre-Booker vs. post-Booker

increases of at least 6 months

decreases of at least 6 months

	Criminal History					
Offense Level	I	II	III	IV	V	VI
1	-14.6	0.2	-4.0	.	.	1.8
2	-0.6	-2.7	1.3	-0.1	-0.6	2.5
3	2.5	-6.4	-1.8	-21.3	-11.9	3.7
4	1.0	1.0	2.6	1.5	-0.4	1.7
5	1.2	-0.1	2.3	-4.7	3.4	2.7
6	1.6	1.0	1.2	0.0	0.8	0.1
7	0.3	1.1	0.6	0.3	1.9	0.0
8	2.1	0.3	1.3	1.3	0.0	0.3
9	0.6	2.9	1.0	2.1	5.6	2.8
10	0.4	1.2	2.4	2.0	2.9	2.0
11	0.4	1.1	0.7	1.6	1.2	1.9
12	-0.1	1.1	0.4	2.1	0.6	1.3
13	0.3	0.9	1.9	1.8	2.1	3.2
14	-0.4	3.7	1.7	3.8	2.3	0.5
15	0.2	0.3	0.3	0.5	2.0	1.2
16	0.1	1.7	4.5	2.9	10.1	3.5
17	-0.6	0.4	1.6	0.3	2.7	1.7
18	0.3	4.3	5.1	2.8	4.6	0.4
19	-0.6	-1.2	0.9	2.2	-4.2	2.1
20	-0.1	0.1	1.1	5.5	7.1	0.4
21	-0.8	3.3	1.9	0.5	0.5	1.9
22	-0.8	-0.1	2.3	1.2	11.0	2.4
23	0.5	2.2	3.5	2.5	4.4	2.2
24	-2.3	-0.2	-0.7	8.4	5.2	0.0
25	2.2	4.3	4.2	0.0	-11.9	-0.4
26	-4.4	-10.3	9.6	10.0	-3.7	1.9
27	-0.1	3.7	7.8	3.9	3.0	-1.7
28	-4.6	5.8	4.8	3.4	-13.4	25.8
29	2.4	3.3	5.7	9.3	8.5	1.4
30	-6.0	1.7	-0.6	7.1	6.6	5.2
31	5.3	10.3	5.3	4.6	7.9	-2.6
32	4.5	3.4	12.8	-1.8	-5.6	-10.4
33	2.9	3.0	4.3	10.0	6.0	-1.7
34	0.1	13.3	17.3	-4.7	-12.1	-8.2
35	2.5	5.2	6.8	-0.6	12.4	3.7
36	6.9	-15.8	-5.1	13.7	-0.3	10.7
37	8.4	13.0	-0.7	3.1	5.6	-11.3
38	-13.5	-28.6	-7.9	58.2	27.1	-16.5
39	6.8	-12.0	-5.9	6.9	-8.3	24.4
40	-19.6	-32.7	-15.0	-5.1	-8.9	36.4
41	1.0	6.6	8.7	-22.0	8.5	-16.9
42	4.6	12.4	-0.9	70.1	10.7	2.0
43	95.2	41.8	138.2	120.3	28.9	75.7

CHAPTER 3: ASSESSING THE EFFECT OF BOOKER ON MONETARY PENALTIES AND PRISON

ABSTRACT

This study assesses the effect of the Supreme Court ruling in *US v. Booker* (2005) on the use of monetary penalties and incarceration in federal sentencing. To address the perennial difficulties in reducing the influence of selection bias on identifying the effect of policy changes, this analysis uses a matching algorithm to create comparison groups with more balanced observable characteristics. The analysis considers likelihood and severity of prison and monetary penalties both separately and simultaneously. Doing so reveals consistent evidence that race and gender continue to be quite influential in sentencing outcomes, post-Booker. The matched dataset also reveals that greater judicial discretion post-Booker is associated with more volatility in the use of monetary penalties than prison. By investigating how monetary penalties and prison likelihood and severity change post-Booker, this study advances our understanding of the differential effects of major policy changes.

Introduction

Efforts to identify the effect of sentencing guidelines on sentencing outcomes – particularly on the effect of extralegal factors such as race and gender – are typically hindered by the limitations of sentencing data. The data often exclude decisions made in the stages prior to sentencing (suspicion, arrest, charging, plea, etc). Moreover, the issue of selection bias plagues attempts to isolate the effect of policy change from changes in the characteristics of offenders and offenses in the caseload in the same time period. Yet, identifying the effect of sentencing policy on sentencing outcomes is fundamental for determining if the goals of the policy are being achieved (e.g., reducing unwarranted disparities) and for assessing equity and efficiency in the criminal justice system. This analysis applies several innovative techniques to answering the question: What is the effect of *Booker* on federal criminal sanctions? First, it expands the scope of sanctions to include monetary penalties, which are mandated by federal guidelines in addition to prison. Second, it draws a clear distinction between likelihood and severity of sanctions and investigates how each varies for both monetary penalties and prison. Third, it utilizes a matching algorithm to create pre- and post-Booker comparison groups that are more balanced on observable characteristics – thereby reducing the likelihood that *un*observable characteristics vary significantly between the two groups.

I begin by making the case that offense type, race and gender, and departure status are the factors requiring specific analytical attention. Next, I discuss prior scholarship on the effect of extralegal factors on sentencing guidelines under various guideline regimes, focusing on the limitations and insights of the various approaches. I then outline the methodological issues that are typical in this line of scholarship and explain how the use of a matching algorithm helps to ameliorate them. After presenting descriptive statistics and a summary of the matched dataset, I use Ordinary Least Squares and logistic regression to further specify and compare the effect of extralegal factors, departure status, and offense type before and after Booker. I conclude with a discussion of the main findings and their contributions to the study of sentencing policy outcomes.

Offense Type

The hierarchical linear models in the previous chapter highlight the importance of offense type, as does prior work on disparities in incarceration (e.g., Ulmer et al 2011). The effect of race and ethnicity on sanction severity and likelihood varied significantly when interacted with various offenses. The overall pattern is that monetary sanctions are most severe for white collar crimes and less severe for drug crimes and least so for violent offenses. In addition to underscoring the need to account for offense type, these findings are consistent with the emphasis on white collar crimes in

other work on monetary penalties. Considering offense type in general and white collar crimes, in specific, permits comparability with this work. Prior work focuses on white collar crimes (often fraud) for a variety of reasons. One is that this class of offense is considered to be the domain of the clearest and most justified substitutability. The offense involved money, so it makes intuitive sense that the sanction for these crimes should as well. This dynamic contrasts with other types of crimes where the incommensurability of physical violence and money, for example, complicate quantifying harm with dollars. The notion that monetary sanctions might actually replace some (or all) of a prison sentence seems most justified for the white collar crimes. Another origin of the focus on white collar crimes arises from the predictions of Optimal Penalty Theory (OPT) (e.g. Becker 1968). This theory suggests that fines should be used to the maximum extent first and the minimal amount of prison should be used in order to maximize punishment and minimize cost to the state.

While white collar crimes account for a large portion of the cases in the federal caseload (six year average: 22%), drug crimes are even more prevalent – representing an average of 50% of the file (over six years). Drug crimes are therefore worthy of specific study, in part owing to the primacy of drug offenses in generating interest in monetary sanctions as a non-incarceration option at the outset of the Alternative Sanction Movement. In addition, the type of harm caused by drug crimes rarely has a specific identifiable victim – rendering them substantively different from white collar and violent crimes. Identifying the effect of Booker on the use of monetary sanctions for drug crimes therefore provides a useful opportunity to compare sanctioning for a frequent, but unique offense category. Violent crimes are not separately analyzed in this study because there are so few in the file[39], HLM analysis revealed no strong effect, theories of meaning suggest violent crimes are most incommensurable with monetary sanctions, and survey experiments show that people are least supportive of using monetary sanctions for violent crimes (e.g., Gromet & Darley 2009). By focusing on offense type, specifically on white collar crimes and drug offenses, this analysis addresses the relative dearth of empirical studies that study more than one type of federal offense (as noted by Johnson et al 2008).

Race and Gender Intersectionality

Identifying sentencing disparities on the basis of extralegal factors such as race and gender is a constant theme in the literature on incarceration (see Mitchell 2005; Spohn 2000; Kleck 1981; and Green 1971 for detailed reviews). The general conclusion is that extralegal factors have greater influence on likelihood of incarceration (e.g., Spohn and Holleran 2000), than on length (i.e. severity) of incarceration (see Bushway and Piehl, 2001; Ulmer, 2000). A central goal of the sentencing guidelines established at both the state and federal levels was to eliminate these unwarranted disparities. Researchers have found that, post-guidelines, extralegal factors persist in affecting prison likelihood and severity – albeit to various extents, depending on analytical considerations such as using guideline cell fixed effects (Mustard 2001), short- versus long-term analysis (Wooldredge 2009), and model specification (Ulmer et al 2011).

Prior work on extralegal factors shows that the *intersection* of race and gender warrants close scrutiny – arguably more so than the main effects of either factor alone. The disadvantage in prison sentences experienced by African-American and Latino men is well documented (e.g., Albonetti, 1991; Johnson, 2005; ; Spohn and Holleran, 2000; Steffensmeier and Demuth, 2000; Steffensmeier et al., 1998; Ulmer and Johnson, 2004; Wooldredge et al., 2005). In addition, there is evidence that gender affects many aspects of sentencing, including the in/out decision and length of incarceration

[39] Violent crimes are approximately 2% of federal offenses.

(Steffensmeier et al., 1993; Ulmer and Kramer, 1996; Kramer and Ulmer, 1996; Mustard 2001; Koons-Witt 2002). These consistent findings provide a foundation for the more recent inquiries that explicitly consider the interactive effect of race and gender in sentencing outcomes (e.g., Wooldredge 2009; Ulmer et al 2011). Indeed, Spohn (2011) posits that "a failure to consider the intersection of sex and race/ethnicity may result in inaccurate conclusions about the effects of these variables on sentencing outcomes." Taken together, evidence of the importance of offense type coupled with the importance of the interaction of race and gender provides the rationale for considering the interaction of all three factors: race, gender, and offense type.

Departure Status

This analysis focuses on the two main types of departures that result in a reduction in sentence severity. One is "Substantial Assistance," which is the result of a motion by the prosecutor. The other is "Downward Departure," which is initiated by the sentencing judge (for a detailed description, see Johnson et al 2008, p. 740-741). Upward departures are also possible, but they are rare – occurring in less than 1.5% of cases on average. Departures from sentencing guidelines are the focus of many studies of incarceration (e.g., Albonetti, 1997, 2002; Hartley, Madden, and Spohn, 2007; Johnson, Ulmer, and Kramer, 2008; LaFrenz and Spohn, 2006; Maxfield and Kramer, 1998; Stacey and Spohn, 2006; Steffensmeier and Demuth, 2000). The general consensus is that there are indeed disparities in departure rates and magnitude on the basis of extralegal factors (e.g., race, gender, education and income) post-*Booker*, suggesting that monetary penalties warrant similar scrutiny.

While scholars have explored departures in prison sentences, they have not yet done so while simultaneously considering monetary penalties. Failing to separately analyze sentences based on departures from the guidelines risks obscuring the relationship between the two sanctions precisely in the domain where their interaction stands to be the clearest. Results based on the traditional, but incomplete approach, could mislead the analyst into finding little or no significant effect between incarceration and monetary penalties. Focusing on the use of monetary penalties when a prison sentence has been reduced beyond the range of the sentencing guidelines provides an ideal opportunity to identify how the *severity* of *both* sanctions interact. This is a notable deviation from the norm of focusing on the likelihood of each sanction. That is, examining the effect of Booker on monetary penalties among those who received a reduced prison sentenced, affords a chance to see a clear trade-off between prison and monetary sanctions. If the efficiency model proposed by OPT is accurate, then it should be most evident here.

Another advantage of studying departure status is that it is a locus of clear and measurable judicial discretion. This is in contrast to the vast majority of the myriad decisions and processes that precede the actual sentencing decision (e.g., arrest, charge, plea, etc.). In fact, the recent literature on federal sentencing indicates that it is particularly important to have clarity about the distinction between judicial decision-making and the selection process that precedes sentencing (e.g., Bushway and Piehl (2007). Because judges occupy the final point in this process, some have cautioned against making assertions about the entirety of "sentencing" based solely on an examination of judicial sentencing decisions. For example Bushway and Piehl (2007) explain that: "Departures from guideline sentencing ranges are the result of discretion at the sentencing stage, because they represent deviations from the recommendation of the preceding criminal process" (p. 464). And Johnson, Ulmer, and Kramer (2008) posit that "extant research that examines federal departures suggests that they may be the primary source of individual disparities in punishment" (p. 740). This line of reasoning supports concentrating on departures from the guidelines, since departures are fully located in the realm of judicial decision-making (Albonetti, 1997; Mustard, 2001; Spohn, 2005;

Steffensmeier and Demuth, 2000; Engen, Gainey, Crutchfield and Weis, 2003; Johnson, 2003; Kramer and Ulmer, 1996).

Guidelines & Disparities

The ubiquity of an effect of extralegal factors in the studies outlined above prompted concern among researchers that the increase in judicial discretion resulting from *Booker* would exacerbate these disparities (e.g., Frase 2007, Hofer 2007). This concern arises from analyses of sentencing comparing pre-guideline practices to decisions made under a guideline paradigm. What remains largely unexplored is a comparison of guideline practices and *post*-mandatory guideline decisions (Ulmer et al 2011). Changes in federal sentencing policy provide an excellent opportunity to do so. The Supreme Court case, *United States v. Booker*, 543 U.S. 220 (2005) addressed the issue of whether or not the Sixth Amendment right to a jury trial applies to federal sentencing guidelines. The court found that this right does apply and asserted that the guidelines should be advisory rather than mandatory.[40] The court also ruled that guideline-based sentences are subject to appeal for "reasonableness."

The standard approach for identifying the effect of guidelines on sentencing disparities is to analyze sentencing data collected once the guidelines were in place. While there is some evidence that the guidelines successfully reduced these disparities (e.g., United States Sentencing Commission, 2004), there is also evidence that the guidelines have been unsuccessful. In a particularly comprehensive study of federal sentencing guideline effects, Mustard (2001) found that offenders who are Black, male and less educated still receive longer custodial sentences than their counterparts.[41] A related set of studies examine the consequences of state-based sentencing guidelines. For example, several studies found that Minnesota's guidelines did indeed reduce racial disparities but that minorities were still more likely to be incarcerated (Knapp 1984; Miethe and Moore 1985; Frase 1993; Miethe and Moore's 2006; see Tonry 1997 for a review of guideline effects in Oregon[42] and Washington). While there is not consensus, the balance of evidence tips towards extralegal factors affecting sentencing outcomes even under a guideline regime.

A less common, but more rigorous approach is to use pre- and post-guideline data to try to identify the effects of guidelines in the short and/or long-term. Several studies exemplify this strategy. Woolredge (2009) used data from three points in time (pre-guideline, short-term post-guideline and long-term post-guideline) to study the effect and duration of Ohio's sentencing guidelines' effects on the relationship between extralegal factors and case outcomes. He uses race, gender, and several interactions as predictors of the in/out and prison sentence length decision and includes age, marital status, employment status, and financial support as controls. He finds that some extralegal factors (race, marital status and age) continued to have an effect on custodial sentencing after the guidelines were in place and concludes that "[t]he general theme from these findings is that the vast majority of legal and extralegal effects on prison sentences did not change significantly under the different [guideline] regimes" (Wooldredge 2009, p. 302). The present analysis poses a similar question for federal guidelines, while including controls for offense type for the reasons outlined above. The federal data used here also permits a chance to compare Woolredge's findings with an analysis based on a larger sample.[43]

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[40] Part of the ruling held that any factor that increased sentences had to be considered by the jury during trial.

[41] Mustard (2001) controls for an extensive array of criminological, extralegal, and sentencing factors.

[42] See also Merritt et al. (2006) – Oregon; Ulmer and Kramer (1996) - Pennsylvania

[43] Wooldredge was restricted to 5% of the state's case files.

Koons-Witt (2002) investigates the effect of gender before and after the implementation of the Minnesota sentencing guidelines. She includes drug and property offenders and includes an interaction term for race and sex (although race is categorized as "white" or "nonwhite," with no further distinctions). Her main finding is that gender is not a predictor of incarceration, but women having dependents reduces the likelihood of prison both before and after the guidelines were in place. In another study of the Minnesota guidelines, Stolzenberg and D'Alessio (1994) find that the guidelines' reduction of sentencing disparities differs for likelihood and severity. Disparities in the in/out decision decreased initially and eventually reverted to pre-guideline levels. However, disparities in prison length declined significantly (60%) and permanently (11 years after pre-guideline data).

Ulmer et al (2011) analyze the effect of extralegal factors on sentencing outcomes after several pivotal changes in federal sentencing policy: the Feeney Amendment of the PROTECT Act (2003-2004), which essentially limited judicial discretion; *Booker* and *United States v. Fanfan* in 2005, which made the guidelines advisory rather than mandatory; and, *Gall v. United States* (2007) which found that district judges are to assess the reasonableness of guideline sentences. Note that a key innovation of this study is that it analyzes *post*-guideline data. In seeking to address methodological issues in the USSC's 2010 report on sentencing disparities, Ulmer et al (2011) find that *Booker* and *Gall* did not generate more disparity in downward departures and that race and gender disparities in sentence lengths were reduced under advisory guidelines. They also find that disparity is more likely to occur in the in/out decision for Black men than in prison sentence length and that there is a greater disparity for Black men in immigration cases. Yet, these and other disparities are less severe than anticipated and reported in the USSC's report based on different modeling assumptions.

The conflicting findings in the literature on the effect of sentencing guidelines on disparities is a primary reason[44] that the topic continues to warrant scholarly attention. Moreover, the mixed results indicate that the methods being used could benefit from further refinement. While there is recurring evidence of disparities at both state and federal levels when guidelines are mandatory, pre-/post-guideline comparisons are rarer but provide clearer insight into guideline effects. This class of studies indicates that the effect of guidelines on disparities is minimal, tending to reduce but not eliminate for disparities in prison severity. There is mixed evidence on the effect of guidelines on prison likelihood. There is also evidence that the main effect of gender may be less significant than gender in interaction with other factors such as race or number of dependents. Unlike for the effect of extralegal factors, the evidence is quite consistent that results in this domain are sensitive to modeling assumptions and specification. There is yet to be a study of the effect of guidelines on monetary penalties.

Methodological Issues and Improvements

The advantage of these pre/post guideline studies is that they provide a baseline for understanding the effect of extralegal factors once the guidelines are in place. The disadvantage is that they rely on regression techniques that cannot account for selection bias, thus increasing model dependence. That is, there is reason to expect that a massive change in sentencing policy such as the implementation of sentencing guidelines may affect more aspects of the criminal justice system than just the sentencing decision. In particular, there is a distinct possibility that such events alter decisions made by prosecutors early in the process. This notion of a "hydraulic displacement of discretion" predicts that post-guideline sentencing disparities will simply occur in other domains

[44] Differences in jurisdiction and year range may also be a source of discrepancies.

such as pleas and decision about severity and maintenance of charges (Miethe, 1987; Engen & Steen, 2000; Koons-Witt 2002; Wooldredge 2009). For example, prosecutors may be more likely to pursue certain types of cases or offenders in a calculation of probability of likelihood of success.

The issue of selection bias emerges when some aspect of the policy intervention is related to the outcome of interest. Importantly, it could be that the characteristics of the average offender changed after Booker and that these characteristics influence sanctioning severity. For example, women are more likely to receive restitution even when criminological and other extralegal factors are controlled for [chapter 2]. So, if there were more women being sentenced pre-Booker, an assessment of monetary sanctioning likelihood would be overestimated. Unobservable characteristics are another source of potential bias. A factor like family stability may affect both propensity to offend and how well an offender fares through the arrest, pre-trial detention (or release), and charging stages preceding sentencing. Yet, sentencing data do not include a direct measure of such factors. The perceptions on the part of those involved in the pre-sentencing stages are also important considerations. For example, a prosecutor may have been more likely to pursue a particular type of case pre-Booker when judges had less discretion than after Booker when judges had more discretion. Of particular concern is the potential for momentous shifts in policy to alter the composition of the caseload such that observed disparities (such as on the basis of extralegal factors) are actually due to changes in the prominence of criminological factors such as offense type, criminal history, or other legal considerations for sentencing. It follows that the main goal of this article is to address the issue of selection bias in pre- and post-Booker cases. Doing so helps account for the fact that the before and after cases may differ in ways that are not readily apparent.

Addressing the main question of this analysis – what is the effect of *Booker* on federal criminal sanctions – requires taking into account the fact that there are yearly fluctuations in both caseload and sentencing outcomes and that the caseload characteristics changed post-Booker. To address the former concern, I combine several years of data pre-Booker and compare them to several years of combined post-Booker data. To address the latter, I use a matching algorithm to create comparison groups that have a more balanced distribution of covariates than the unmatched dataset. Utilizing a matching algorithm to construct comparison groups also helps address the issues that necessitate a research design that does not rely exclusively on regression analysis.

Matching

A simplistic approach to understanding the effect of Booker on the severity of custodial sanctions would be to compare the average number of months of a prison sentence before Booker to the same average after Booker. The same could be done with the average amount of monetary sanctions or with the likelihood of receiving either type of sanction. In terms of identifying the effect of Booker, the ideal analysis would be to examine the same individual being sentenced by the same judge for the same crime and with the same criminal history both prior to and after Booker. Given the impossibility of this counterfactual, estimating the effect of Booker requires analytical techniques that approximate it.

As mentioned above, the main concern here is that selection bias (a change in the caseload composition) will contribute to bias from unbalanced unobservable characteristics. Achieving balance on observed characteristics helps reduce of bias from these sources. By limiting the analysis to observations that have close matches in the control (pre-Booker) and treatment (post-Booker) groups, model dependence and bias are diminished. With a perfect match (i.e., distribution of the observable characteristics is identical in treatment and control groups), the average effect of Booker can then be calculated as the mean difference in sentence likelihood, severity, and mix between the matched pre- and post-Booker groups. Since Booker had the effect of changing policy nationally all at once, the only way to assess its effect is in a before-and-after design. Using matching can eliminate the effect of the differences in the profile of the group of offenders sentenced pre-Booker versus

those sentenced post-Booker. However, it cannot readily separate these effects from temporal effects. To put the question in terms of program evaluation, Booker's national implementation is akin to mandatory participation, in which case selection is not an issue since everyone who is eligible participates.

The matching algorithm I use to construct comparison groups with better balance is the "Coarsened Exact Matching" (CEM) package in STATA. The method was developed in Iacus, King, and Porro (2008) to improve upon prior methods for reducing imbalance in the covariates of treatment and control groups that require the researcher to make more assumptions about the data and are computing resource intensive. A key advantage of CEM is the use of substantively meaningful cut-points in the data. For example, while there are 94 districts in the federal system, many states have more than one district and each circuit consists of multiple districts. Thus, the CEM facilitates grouping these districts by state for the purposes of achieving an efficient and balanced match. Then the districts are disaggregated for the purposes of analysis. Similarly, rather than using a continuous variable for years of education to perform the match, logical breaks (such as that between high school and college) are used. Naturally occurring breaks in the data also provide useful cut-points as in the case of offense level, which has 43 categories but the frequency of which clusters in groups of five or six.

Comparison Group Construction

The decision rule for selecting variables on which to match is to use those covariates that affect both participation and outcome – in this case 1) being sentenced post-Booker; and, 2) likelihood and severity of sentence. The idea being that these variables will vary systematically in the groups and affect outcomes (Rosenbaum & Rubin 1985; Bryson et al 2002). Therefore, I match on a selection of criminological, sentencing, and extralegal factors:

Balanced Criminological Factors	Balanced Extralegal Factors	Other Controls
criminal history (zone)	race	district
offense level (zone)	age	presentencing location
immigration	education	disposition
	number of dependants	
	citizen	
	gender	

Criminological factors must be matched between the comparison groups, since these form the legal basis for sentencing outcomes. In particular, I match on guideline "zone" to achieve balance on criminal history and offense level. Each cell of the guideline grid represents the intersection of an offender's criminal history and offense level. Mustard (2001) provides compelling support for using the structure of the sentencing guidelines grid for analysis of disparities and [chapter 2] shows the value of doing so for questions of likelihood and severity of monetary sanctions. There are four zones in the sentencing guidelines ("A" through "D" – see Appendix A).

Immigration requires careful treatment owing to its unique qualities. On the one hand, immigration offenders are atypical due to their being subject to other types of sanctions such as deportation. On the other hand, the massive increase in immigration cases during the study period must be taken into account. To do so, I create a summary variable for the level of immigration by district (high, medium, or low pre-Booker) and an indicator variable for whether the district experienced a negative or positive shift in the proportion of immigration cases post-Booker. This approach has the advantage of factoring in the effect of immigration in

both a cross-sectional sense and longitudinal sense. Yet, for the reasons explained at length in Chapter 2, individual cases of immigration are excluded from the analysis of the effect of Booker on sentencing outcomes. Although immigration offenses are excluded from this analysis, citizenship is still an important factor for matching.

I balance the extralegal factors that are of direct interest to the research question, in addition to those likely to affect sentencing. Race and gender are necessary, because the goal is to investigate the role of the interaction of these factors in sentencing. Prior research on gender indicates that there is a negative relationship between number of dependents and incarceration for women (Koons-Witt 2002), so this factor is included in the match. Similarly, evidence that younger and less educated males are subjected to harsher penalties is the justification for matching on age and education (see Spohn 2000 for a review). I also match on district owing to a series of recent studies indicating that the context of sentencing – the judge and the court – is an important factor in how sentencing decisions are made and how the guidelines are applied (Johnson 2005; Johnson 2006; Johnson, Ulmer, and Kramer 2008). Because judge characteristics have been shown to influence custodial sentencing, it is necessary to investigate if and how they affect decisions about monetary sanctions.

The goal of matching is to eliminate observed covariates as a source of bias and the present goal is to use a matched sample to estimate the effect of Booker on the outcomes of interest: likelihood and severity of monetary penalties and prison. Comparing averages on the basis of the matched dataset provides a superior description of post-Booker trends, since doing so accounts for changes in the composition of the caseload. By the same token, the estimates herein describe the trends for the set of offenders who were similar prior to and after Booker. Thus, it does not provide a global account of sentencing practices. However, the goal is to focus on the effect of Booker, and accomplishing that task requires a narrowed scope but an increased reliability.

Analysis

I use a statistic of "standardized difference," developed by Rosenbaum and Rubin (1985) and applied to criminological analyses by Ridgeway, McCaffrey, and Morral (2006) and Paternoster & Brame (2008)[45] to assess post-match balance. The standardized difference is a calculated by dividing the difference between the means for the treatment and control group by the standard deviation for the treatment group. Table 1 shows that matching improved the balance of nearly all covariates. The exception is *number of dependents*, with a mean difference of 0.04. Substantively, this difference is negligible, since it indicates a very small difference in the average number of dependants in the treatment (post-Booker) and control (pre-Booker) groups. The proportion of drug offenses also becomes slightly less balanced, but the importance of this balance is greatly diminished by either conducting analyses separately for these offenses or otherwise controlling for them.

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45 "When the means for the two groups are approximately the same on a particular characteristic, we say the groups are 'balanced' with respect to that characteristic. Following Rosenbaum and Rubin (1985), we assess balance by calculating the "standardized difference" statistic as implemented by Ridgeway, McCaffrey, and Morral (2006). In general, for any given covariate, this statistic is calculated by dividing the difference between the means for the treatment and control group by the standard deviation for the treatment group. Rosenbaum and Rubin (1985) suggest that a standardized difference statistic in excess of .20 or less than –.20 indicates lack of balance between the groups on that characteristic" (Paternoster & Brame 2008, p. 284-5).

Table 1: Pre- and Post-Match Balance

	matched			unmatched				
	diff in means	sd(post)	standardized difference	diff in means	sd(post)	standardized difference	change in standardized difference	
AGE	0.47	9.73	0.048	0.51	9.85	0.051	-0.003	
# dependents	0.04	1.66	0.027	0.04	1.72	0.025	0.002	*
education	0.01	1.66	0.004	0.01	1.69	0.005	-0.001	
citizen	-0.01	0.74	-0.010	0.00	0.77	-0.002	-0.008	
race	0.02	1.10	0.021	0.04	1.20	0.034	-0.012	
gender	-0.01	0.33	-0.030	-0.01	0.36	-0.019	-0.010	
zone	0.08	0.75	0.110	0.10	0.86	0.112	-0.003	
violent	0.00	0.12	0.013	0.00	0.14	0.019	-0.006	
white collar	-0.02	0.39	-0.048	-0.02	0.41	-0.044	-0.004	
drugs	-0.01	0.50	-0.019	-0.01	0.50	-0.025	0.007	*
circuit	0.00	2.87	0.001	0.01	2.89	0.003	-0.002	
immigration level (pre)	-0.04	0.84	-0.053	-0.04	0.83	-0.051	-0.002	
change in immigration	-0.02	0.66	-0.023	-0.01	0.67	-0.021	-0.002	

* *a positive value indicates that these variables became less balanced post-match*

Sanction Severity and Departure Status

The first phase of analysis focuses on descriptive statistics. Because the goal is to investigate pre-/post-Booker differences with a focus on comparing monetary penalties use to prison, these preliminary descriptions provide a useful context for understanding the results of the model-based analysis below. Figures 1a-1d display the average sanctions and departure rates for each *race x gender* category. Figure 1a shows that the average length of prison sentences increased post-Booker. Based on these averages, severity increases more with race than with gender: the averages are higher for all male categories and the averages for all female categories are comparable. The pattern within male groups is consistent with much of the literature referenced above in than Black men receive the longest prison sentences, followed by Latinos. White men receive the shortest. While the severity of prison sentences varied by category, the extent of the shift in severity is fairly constant across the groups. Figure 1b shows a rather different pattern. Here, white men receive the largest average penalty and, in other racial categories, women receive larger monetary sanctions than men. In addition, the severity of monetary penalties varied significantly post-Booker, but inconsistently across *race x gender* groups. Taken together, the information in these two figures is an initial indication that the greater judicial discretion post-Booker is associated with more volatility in the use of monetary penalties than prison and that the effect of race and gender vary for each type of sanction.

Figure 1a

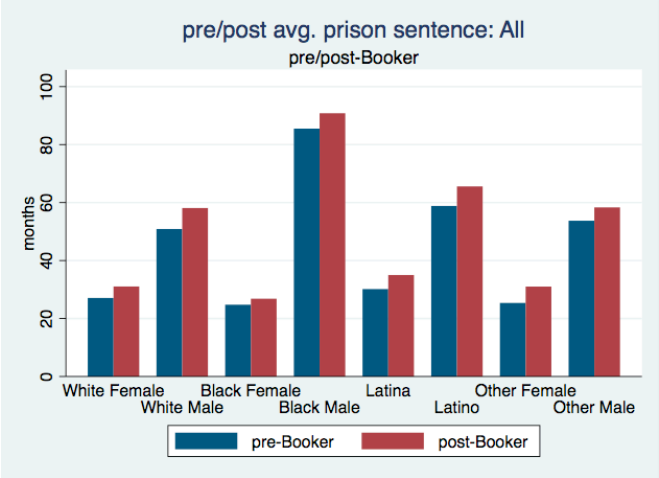


Figure 1b

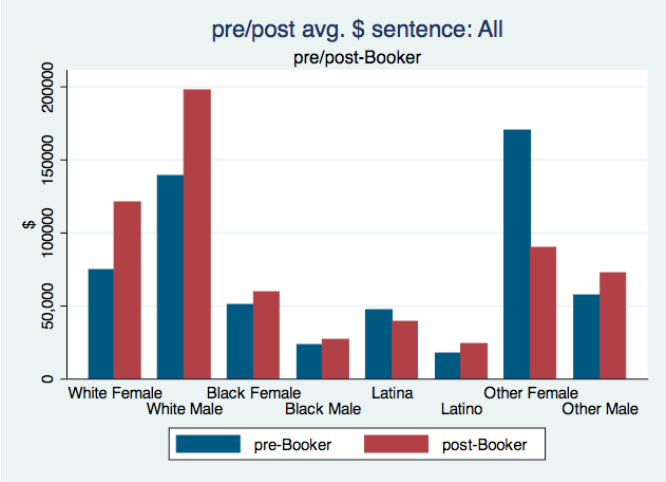


Figure 1c

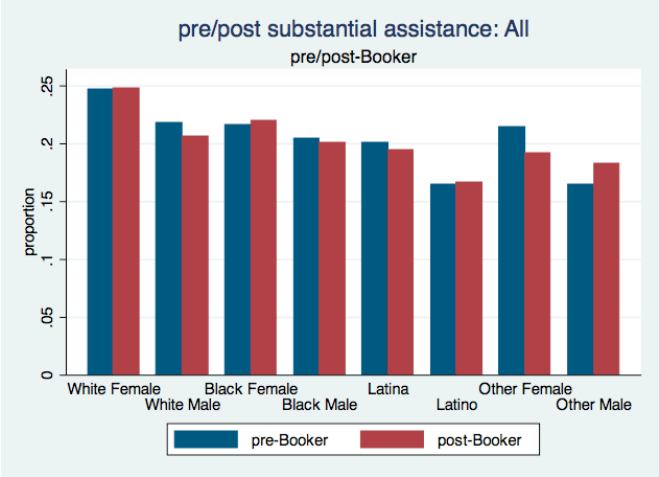
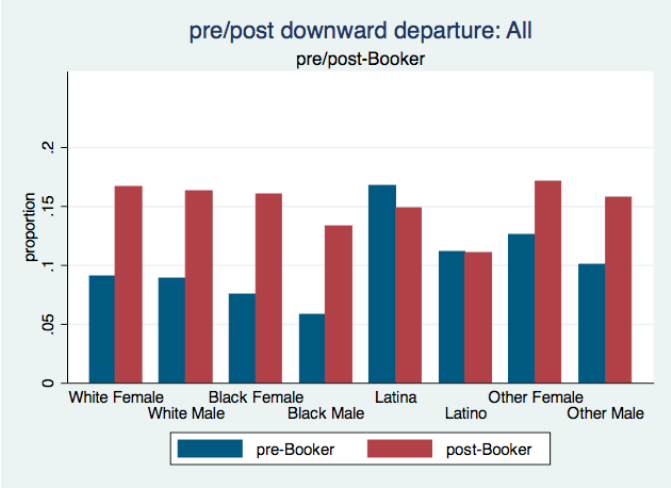


Figure 1d



Recalling that Substantial Assistance departures are those that are initiated by the prosecution, Figure 1c shows slight variation in the rates on the basis of race and gender (ranging between 17% and 25%) and that the prevalence of this type of departure changed very slightly post-Booker. In contrast, the judge-initiated Downward Departures varied significantly on the basis of race and gender and pre- versus post-Booker. For all groups but Latina and Latinos, the frequency of this type of departure increased significantly – almost doubling for White and Black offenders. Although the extent of the difference varies by race, women are more likely to receive this type of departure both pre- and post-Booker. Thus far, means for sanctions and departures based on the matched data underscore the important role of the extralegal factors of race and gender and provide preliminary evidence that Booker altered their effect on sentencing outcomes.

Sanction Likelihood and Severity

Figures 2a-d show the change in the likelihood and severity of prison and monetary sanctions as a percent of the pre-Booker value. Figure 2a shows the differences across all *race x gender* groups. Two key points are apparent in this figure. One is that the likelihood of both types of sanctions changed very little

post-Booker, increasing less than 5% for prison and ranging between -5% and +5% for monetary sanctions. Second, while the severity of prison increased across all groups and severity of monetary penalties changed for all groups (inconsistently), the severity of monetary penalties changed much more drastically than prison for most groups. So, for example, White women became slightly less likely to receive a monetary penalty post-Booker, but the average monetary penalty increased more than 60% for those who did receive a monetary penalty. This pattern is even more striking in Figure 2b, which excludes white collar and drug offenses. Here, the near-zero change in everything *except* monetary penalty severity is quite clear. Figure 2c narrows the focus to white collar offenses exclusively. For this group as well, likelihood of both sanctions varies only slightly, but severity of both types increases significantly (except for severity of monetary penalties for Latina offenders, which decreases). In this case as well, the increase in severity of monetary penalties outpaces that of prison sentences. There is less consistency in the influence of gender for this group of offenders. The change in sanction likelihood and severity for the subset of drug offenders, as shown in Figure 2d, again reveals a pattern of the severity of monetary penalties fluctuating much more post-Booker than prison or likelihood of monetary penalties. It is notable that monetary penalties tend to decrease for drug offenders.

Figure 2a

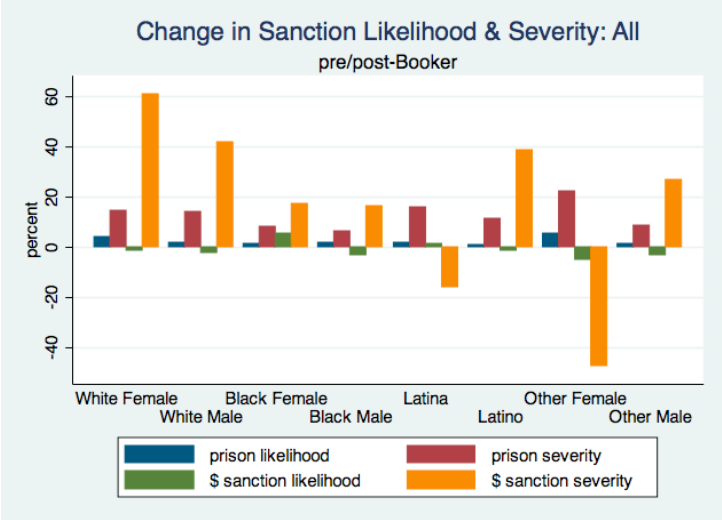


Figure 2b

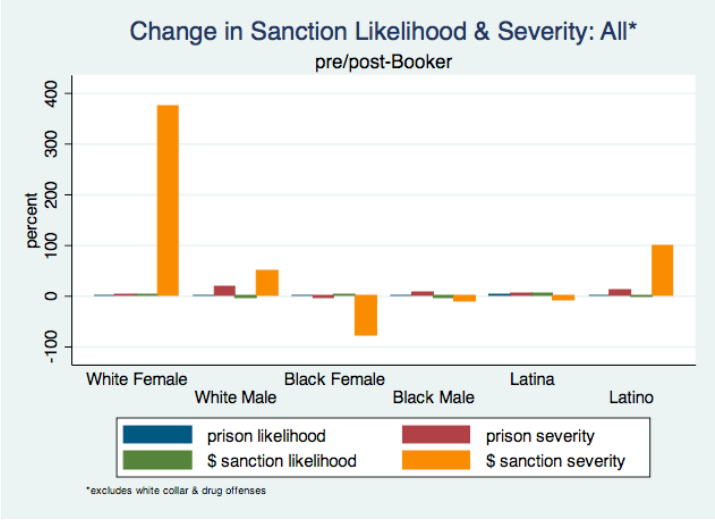


Figure 2c

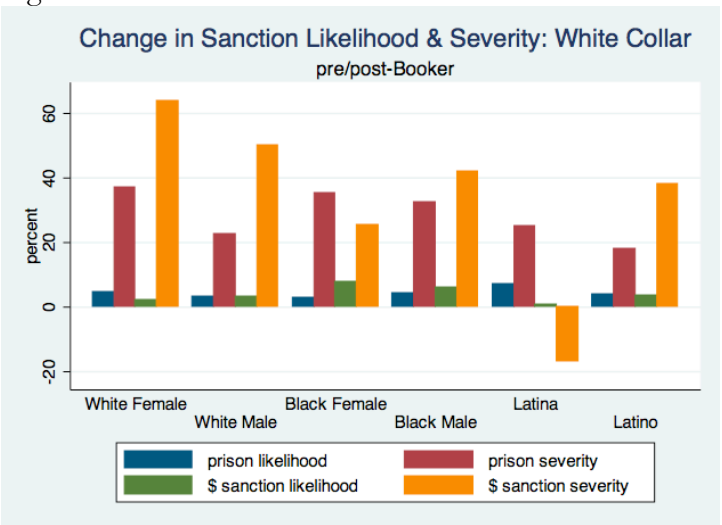
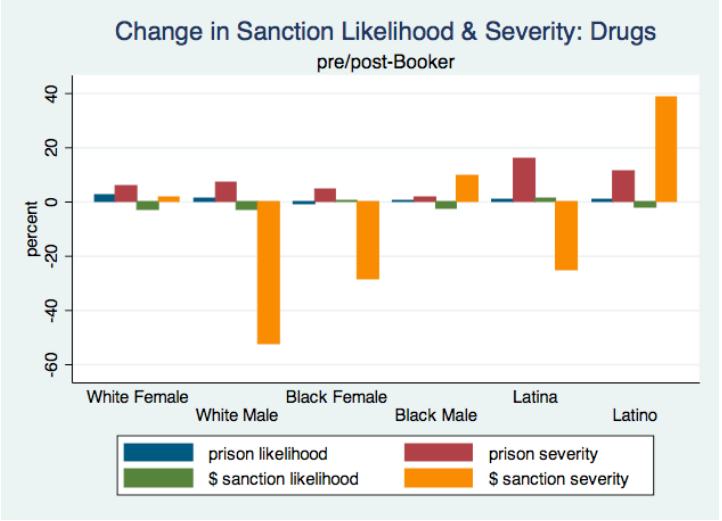


Figure 2d



Departure Status

Figures 3a-d categorize the *race x gender* groups on the basis of departure status. Specifically, each group has four bars: the first set of two bars represent the average sanction for offenders who did *not* receive a downward departure ("in range"), the second set are for those who *did* received a downward departure ("DD or SA"); as in prior figures, the blue bars are the pre-Booker means and the red bars are the post-Booker means. Figure 3a resembles Figure 1a in that the effect of gender is clear here as well, as is the more severe average prison sentence for Black men. What these figures add is a depiction of the "departure discount" – or how much of a reduction in sanctions Substantial Assistance or Downward Departure status entails. In the case of prison sentences, the fairly consistent difference in height between the "in range" and "SA or DD" bars pre- and post-Booker shows that the departure discount did not change significantly with Booker. The exception being Latinos who received a larger departure discount pre-Booker than after. Figure 3b shows that this pattern is not apparent in the case of monetary penalties. This figure is also based on departures in prison sentences, but the bars represent average monetary penalty by *race x gender* group. For white offenders, any departure discount in prison sentences is offset by a significant increase in monetary penalties. While Black men and Latinos are subject to the longest average prison sentences, they receive the lowest average monetary penalty, regardless of departure status. Figure 3c shows the average sanctions for white collar offenders exclusively. Notable is the fact that the overall average prison sentence is a fraction of that for all offenders – the general maximum is just under 100 months, but only slightly more than 25 months for white collar offenders. Similarly, the average monetary penalty is much higher for these offenders than for offenders in general as shown in Figure 3d – ranging from $80,000 to over $1 million for white collar offenders compared to a range of less than $10,000 to $280,000 for offenders in general.

Figure 3a

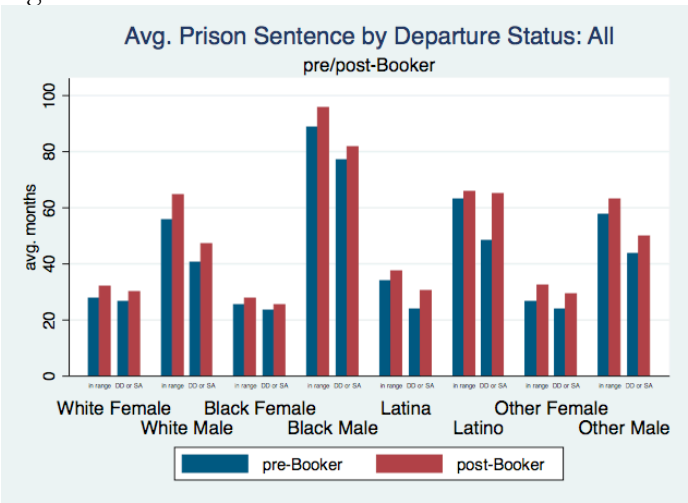


Figure 3b

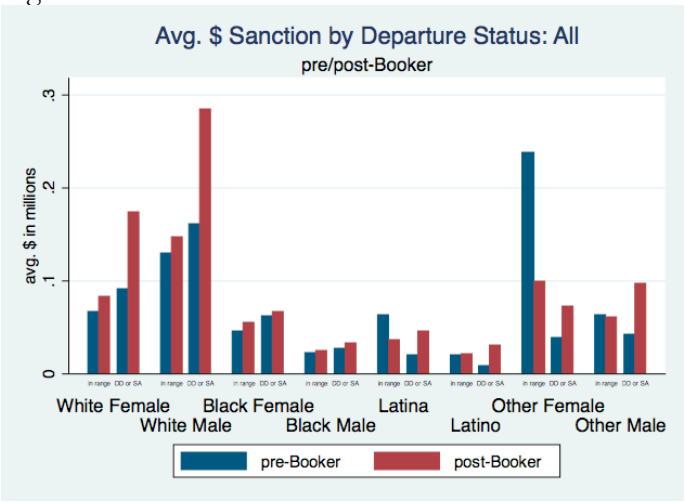


Figure 3c

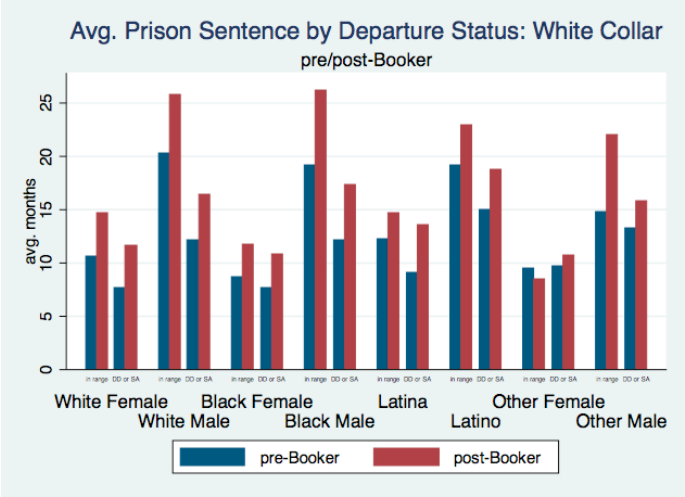
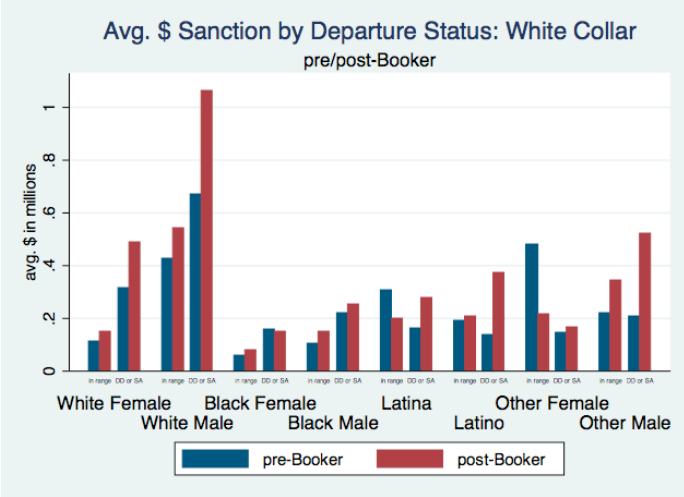


Figure 3d



Regression Models

While the matching solution significantly improved the covariate balance between the pre and post-Booker groups, it did not result in a perfect one-to-one match. Thus, the next step is to more specifically identify the effect of extralegal factors, departure status, and offense type on sentencing outcomes by using multivariate regression analysis to control for additional extralegal, criminological, and sentencing factors. The models have the following components. There are four outcome variables of interest: monetary sanction likelihood, prison likelihood, monetary sanction amount, prison sentence length (in months). All outcomes are logged in the models to achieve a more normal distribution. Offense type is controlled for either with indicator variables equal to one if the offense is white collar/drugs/violent and zero otherwise or by excluding all other offenses from the model entirely. Criminal history and offense level are included, since these are the essential criminological factors determining sentencing outcomes on the basis of the sentencing guidelines. Departure status is controlled for with an indicator variables equal to one if the offender received a Substantial Assistance or Downward Departure. Indicator variables also control for the race x gender combinations above: White, Black, Latino, and other men and women. Since each grid of the sentencing guidelines accounts for the statutory minimum and maximum prison sentence and the tendency to sentence at the high or low end of the range may vary by region of the guideline grid, I construct an indicator variable for each cell. While this approach allows a fixed effect estimate of each cell in the guidelines grid, its usefulness here is simply to control for structural disparities in sentencing that might otherwise contribute to overstating the effect of extralegal factors. Finally, the weights generated by the matching algorithm outlined above are also included in the model. Models are run separately for pre- and post-Booker cases. The reference category is White males.

Basic Ordinary Least Squares / Logistic Regression Model:

log(sanction severity) [or Prob(sanction=1)]= β_{0j} + $\beta_{1,2,3}$*(offense type) + β_4*(criminal history) + β_5*(offense level)

Sanction Severity

The results of the OLS models based on the full matched dataset are summarized in Figures 4a-d. The general trend is that the effect of race and gender on monetary penalty severity is diminished post-Booker (Figure 4a). All groups receive lower monetary penalties than White males pre- and post-Booker. The sentencing factor of departure status and the criminological factors of criminal history and offense level do not have a strong effect on monetary penalty severity either before or after Booker (Figure 4b). Conversely, offense type is a

significant predictor of monetary penalty severity and this effect is stronger post-Booker. A very different pattern emerges for prison sentences. Here, gender once again appears to be a significant factor (Figure 4c). Women receive significantly shorter prison sentences than men pre- and post- Booker. However, for women only the post-Booker coefficients for Black females and Latinas are statistically significant. Thus the trend is that gender matters less post-Booker, and the effect reaches the level of significance under advisory guidelines. Latinos receive slightly longer prison sentences both pre- and post-Booker, but the disparity increases post-Booker (from less than 2% to 5% longer). Of the criminological factors, only the category of violent offenses has a statistically significant effect, although of a very small magnitude.

Figure 4a

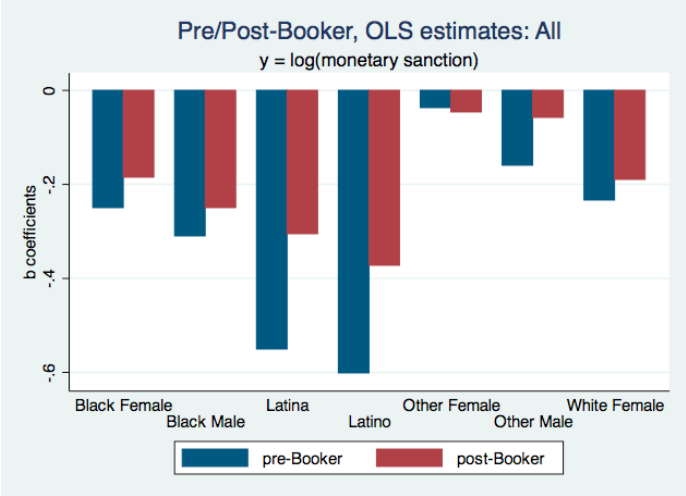


Figure 4b

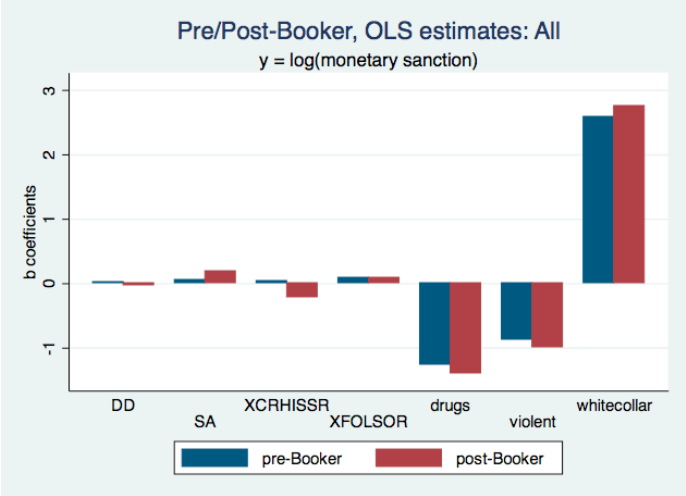


Figure 4c

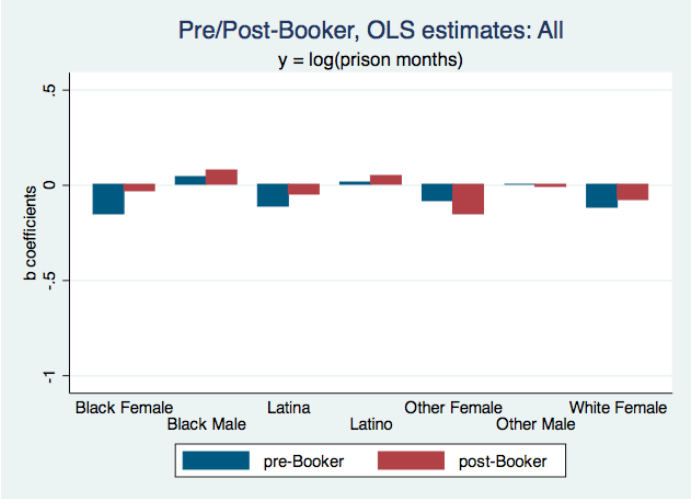
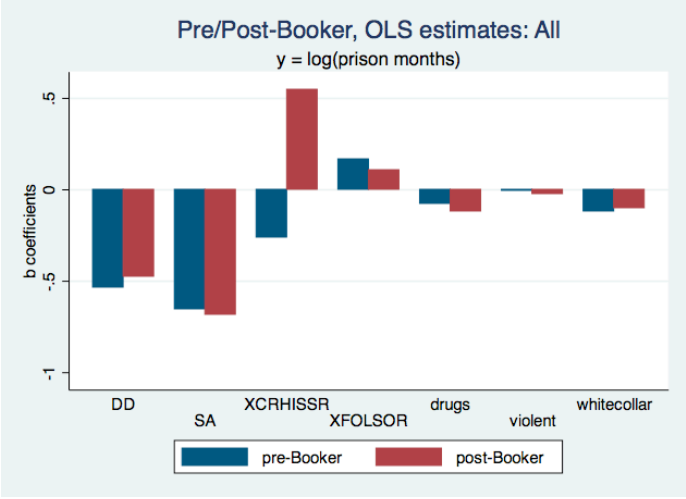


Figure 4d



Sanction Likelihood

Compared to White men, the likelihood that offenders in other race x gender categories receive a monetary penalty only changed slightly post-Booker (Figure 4e). All of the coefficients are statistically significant except for offenders in the Other category pre-Booker, and White females post-Booker. Given that an odds ratio of one means that there is zero difference in the odds between the groups being compared, it is clear that Latina and Latino offenders are the atypical groups. Their odds are less than 50% the odds of White men and their odds did not change significantly post-Booker. The odds decreased for all other groups except for Black females, whose likelihood became more similar to that of White men. Figure 4f shows that the odds of receiving a monetary penalty remain the highest for white collar offenses and increased post-Booker. While Latina and Latino offenders are least likely to receive a monetary penalty, they have much higher odds of receiving a prison sentence and the odds increased for Latinos post-Booker. As with prison severity, we see the pattern that prison likelihood also increased for all groups post-Booker, with men's odds being higher and increasing more than women's. Offense type influences the odds of receiving a prison sentence. It is interesting to note that the odds of violent offense receiving a prison sentence were similar to those of drug offenses pre-Booker, but dropped to more closely resemble those of white collar offenses post-Booker.

Figure 4e

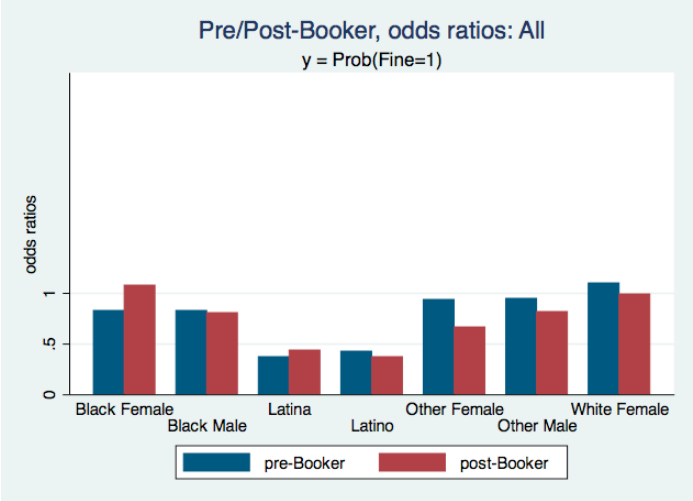


Figure 4f

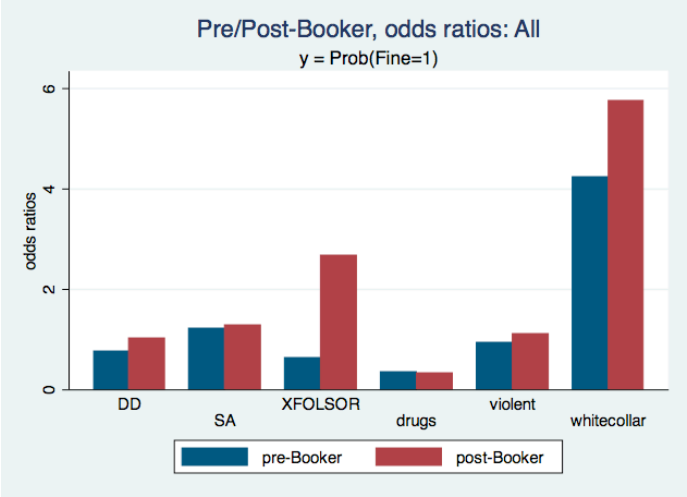


Figure 4g

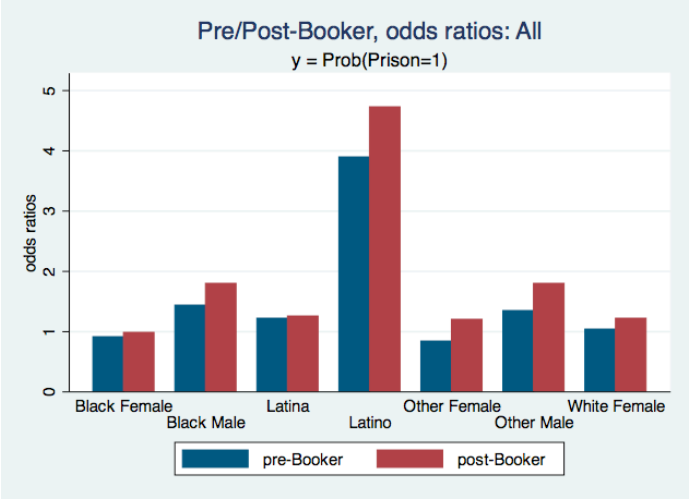
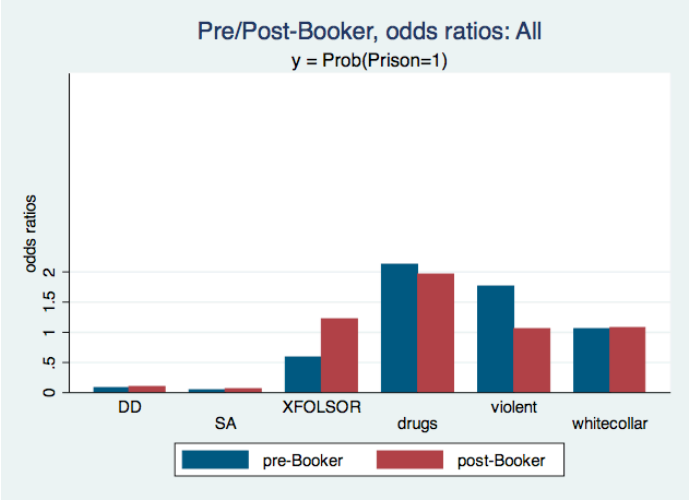


Figure 4h



White Collar Offenses: Severity

For the reasons outlined above, it is useful to identify the effect of offense type and Figures 5a-h show the results of regressions using data including *only* white collar crimes. Post-Booker the effect of *race x gender* on monetary penalty severity increased for most groups. The main exception is Latinos, who experienced a reduced effect of *race x gender* after Booker. The post-Booker coefficient for men in the "Other" category is not statistically significant. Post-Booker, receiving a Downward Departure or Substantial Assistance is associated with a reduced monetary penalty (pre-Booker coefficient is not significant). Comparing Figure 5c and Figure 5d shows that the effect of race and gender on prison severity for white collar offenders is minimal compared to departure status, when all factors are included in the same model. A key conclusion to be drawn from this portion of the analysis is that extralegal factors have a greater effect on the severity of monetary penalties than on the severity of prison sentences. Conversely, while it is to be expected that downward departures are associated with reduced prison sentences (Figure 5d), these departures are also associated with reduced monetary penalties (Figure 5b). This finding suggests that, in terms of severity, the two sanctions are not functioning as substitutes for the precise offense category that theory suggests would be the most probable site of such a trade-off.

Figure 5a

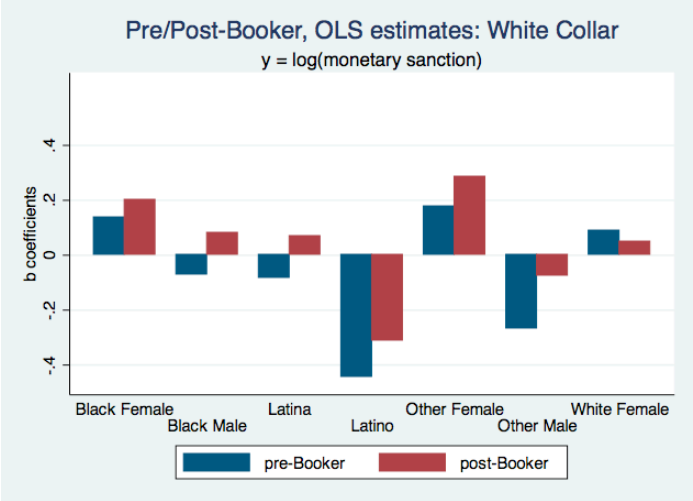


Figure 5b

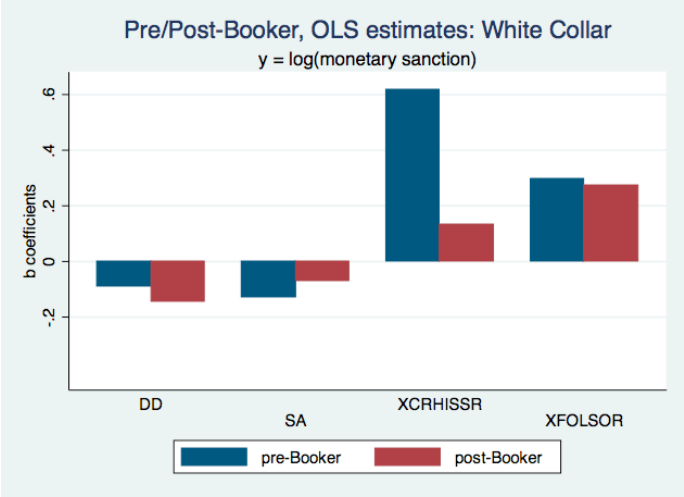


Figure 5c

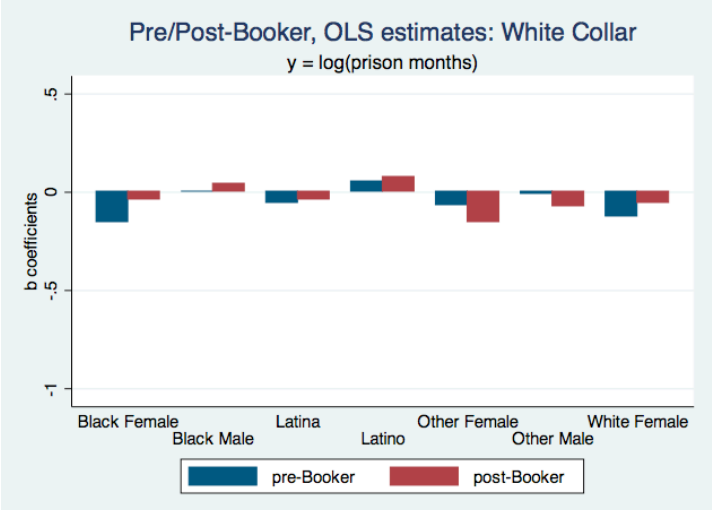
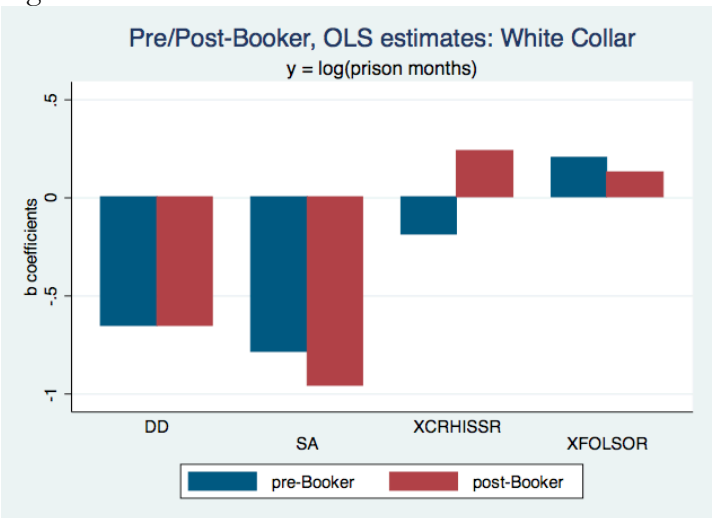


Figure 5d



White Collar Offenses: Likelihood

The groups for which both the pre and post-Booker coefficients are significant – Latinas, Latinos, Other males, and White females – show that the odds of receiving a monetary penalty decreased only slightly post-Booker (Figure 5e). The pattern of female offenders being more likely to receive a monetary penalty is evident here. The coefficients on departure status are not statistically significant post-Booker. The effect of race and gender on prison likelihood are only significant for two groups: Black men and Latinos. For these groups, the likelihood increases post-Booker for white collar crimes. Departure status is consistently significant for likelihood before and after Booker, but criminal history and offense level are not.

Figure 5e

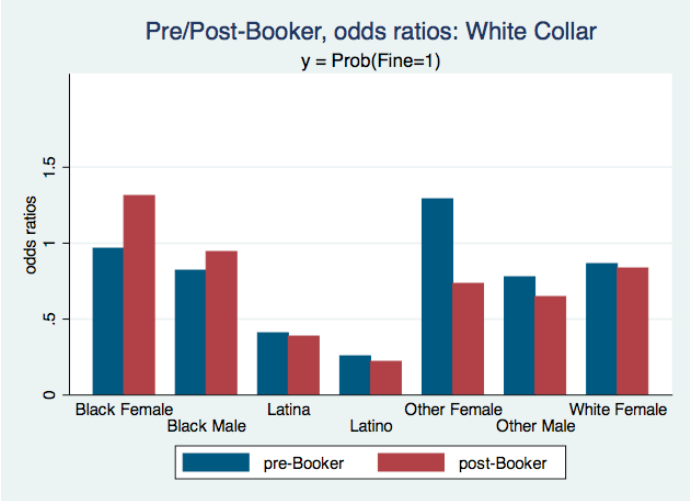


Figure 5f

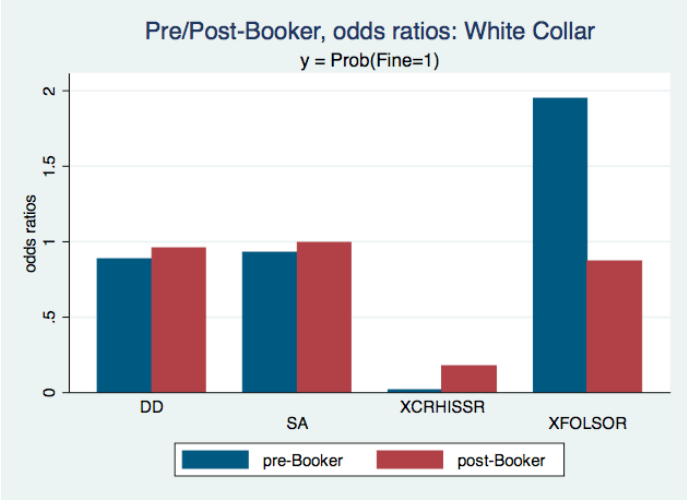


Figure 5g

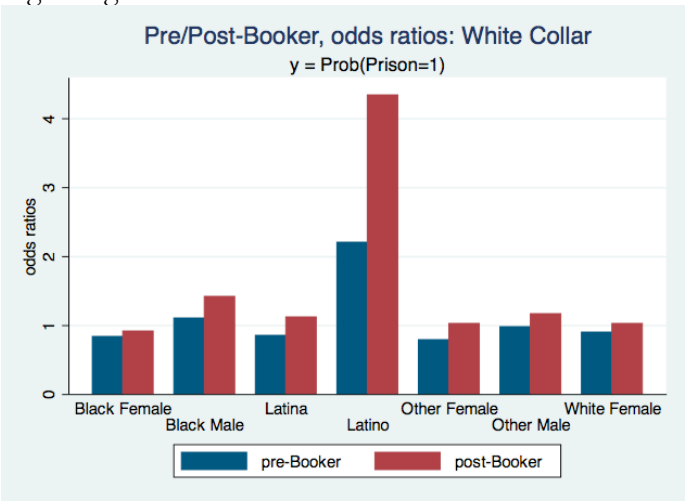
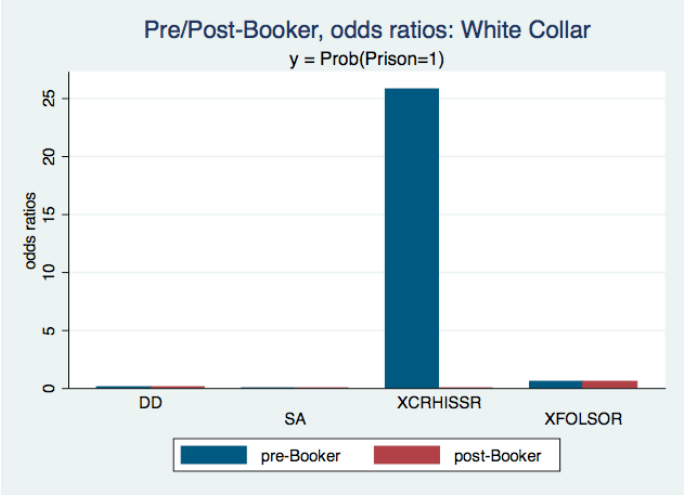


Figure 5h



Discussion

There is consistent evidence that race and gender continue to be quite influential in sentencing outcomes – a fact that is underscored by considering likelihood and severity of prison and monetary penalties both separately and simultaneously. Across multiple analytical approaches, the outcomes of interest vary significantly as a function of the interaction of race and gender. Overall, Booker affected likelihood of both sanctions. Prison likelihood increased for all groups, with men's odds being higher and increasing more than

women's. Monetary penalty likelihood changed slightly post-Booker across all groups. While there is an overall pattern of men receiving harsher prison sentences both before and after Booker, there is also evidence that the interactive effect of race and gender on monetary penalty severity tends to diminish post-Booker. Taking departure status into account further illuminates this finding. The discount in prison sentences arising from a downward departure is inconsistent. For white offenders, the discount is offset by a significant increase in monetary penalties, while Black men and Latinos receive the lowest average monetary penalty, regardless of departure status. In general, the severity of monetary penalties changed much more drastically than prison for most groups. There is also evidence that extralegal factors have a greater effect on the severity of monetary penalties than on the severity of prison sentences. Taken together, the pattern is that the severity of monetary penalties fluctuates much more post-Booker than prison or likelihood of monetary penalties.

Using a pre-/post- dataset that is restricted to cases with comparable match on a variety of observable characteristics permits more reliable estimates of the effect of Booker. Using this matched dataset for descriptive analyses, shows that the greater judicial discretion post-Booker is associated with more volatility in the use of monetary penalties than prison. This echoes the findings in Chapter 2 that found greater volatility in monetary penalty severity as a function of offense level. This recurrence of this finding supports the proposition outlined in Chapter 1. That is, since the guidelines call for prison sentences to be based on both offense level and criminal history, while monetary penalties are based solely on offense level, the structure of the guidelines facilitates greater variation in monetary penalty use. Thus, a useful insight is that the increased discretion post-Booker interacts with the logic of the sentencing guidelines to generate volatility in monetary penalty use. This finding illuminates a consideration for future efforts to adjust sentencing policy.

The clarity this study provides in understanding how an increase in judicial discretion affects the influence of extralegal factors, offense type, and criminological factors on sentencing outcomes is essential for future policy adjustment and creation. For example, if the goal of the guidelines is consistency, then both likelihood and severity much be addressed for both prison and monetary sanctions. If the goal is equity, then the sharp spikes in changes in monetary sanctions post-Booker suggests that these sanctions require stricter constraints. The importance of this analysis is that it not only reveals the importance of both likelihood and severity, but it illuminates how extralegal factors statutorily mandated to be excluded from consideration (race and gender) interact with sanction type. In addition, it provides a significant advance in our understanding of the effect of Booker – particularly in the two following ways. First, it facilitates more reliable estimates by utilizing balanced pre-/post-Booker comparison groups. Second, it considers not just prison but monetary penalties and how the two sanctions interact. By investigating how monetary sanctions and prison likelihood and severity change post-Booker, this study advances our understanding of the differential effects of policy and changes therein. In sum, this analysis furthers our understanding of the effect of major shifts in sentencing policy, which is pertinent to the perennial tension between legislative efforts to homogenize sentencing (and typically make it more punitive) and judicial impetus to maintain and maximize discretion in sentencing decisions.

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APPENDIX A
USSC Sentencing Guidelines

2006 Federal Sentencing Guidelines; CHAPTER FIVE - PART A - SENTENCING TABLE

		CRIMINAL HISTORY CATEGORY (Criminal History Points)					
		I (0 or 1)	II (2 or 3)	III (4, 5, 6)	IV (7, 8, 9)	V (10, 11, 12)	VI (13 or more)
OFFENSE LEVEL							
Zone A	1	**0-6**	**0-6**	**0-6**	**0-6**	**0-6**	**0-6**
	2	**0-6**	**0-6**	**0-6**	**0-6**	**0-6**	1-7
	3	**0-6**	**0-6**	**0-6**	**0-6**	2-8	3-9
	4	**0-6**	**0-6**	**0-6**	2-8	4-10	6-12
	5	**0-6**	**0-6**	1-7	4-10	6-12	**9-15**
	6	**0-6**	1-7	2-8	6-12	**9-15**	12-18
	7	**0-6**	2-8	4-10	**8-14**	12-18	15-21
	8	**0-6**	4-10	6-12	**10-16**	15-21	18-24
Zone B	9	4-10	6-12	**8-14**	12-18	18-24	21-27
	10	6-12	**8-14**	**10-16**	15-21	21-27	24-30
Zone C	11	**8-14**	**10-16**	12-18	18-24	24-30	27-33
	12	**10-16**	12-18	15-21	21-27	27-33	30-37
Zone D	13	12-18	15-21	18-24	24-30	30-37	33-41
	14	15-21	18-24	21-27	27-33	33-41	37-46
	15	18-24	21-27	24-30	30-37	37-46	41-51
	16	21-27	24-30	27-33	33-41	41-51	46-57
	17	24-30	27-33	30-37	37-46	46-57	51-63
	18	27-33	30-37	33-41	41-51	51-63	57-71
	19	30-37	33-41	37-46	46-57	57-71	63-78
	20	33-41	37-46	41-51	51-63	63-78	70-87
	21	37-46	41-51	46-57	57-71	70-87	77-96
	22	41-51	46-57	51-63	63-78	77-96	84-105
	23	46-57	51-63	57-71	70-87	84-105	92-115
	24	51-63	57-71	63-78	77-96	92-115	100-125
	25	57-71	63-78	70-87	84-105	100-125	110-137
	26	63-78	70-87	78-97	92-115	110-137	120-150
	27	70-87	78-97	87-108	100-125	120-150	130-162
	28	78-97	87-108	97-121	110-137	130-162	140-175
	29	87-108	97-121	108-135	121-151	140-175	151-188
	30	97-121	108-135	121-151	135-168	151-188	168-210
	31	108-135	121-151	135-168	151-188	168-210	188-235
	32	121-151	135-168	151-188	168-210	188-235	210-262
	33	135-168	151-188	168-210	188-235	210-262	235-293
	34	151-188	168-210	188-235	210-262	235-293	262-327
	35	168-210	188-235	210-262	235-293	262-327	292-365
	36	188-235	210-262	235-293	262-327	292-365	324-405
	37	210-262	235-293	262-327	292-365	324-405	360-life
	38	235-293	262-327	292-365	324-405	360-life	360-life
	39	262-327	292-365	324-405	360-life	360-life	360-life
	40	292-365	324-405	360-life	360-life	360-life	360-life
	41	324-405	360-life	360-life	360-life	360-life	360-life
	42	360-life	360-life	360-life	360-life	360-life	360-life
	43	life	life	life	life	life	life