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Race, drugs, and sentencing: A quantitative analysis of sentencing outcomes for federal cocaine and methamphetamine drug offenses

By

Makeela Johari Wells

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Sociology
in the Department of Sociology

Mississippi State, Mississippi

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Makeela Johari Wells

2017



Race, drugs, and sentencing: A quantitative analysis of sentencing outcomes for federal cocaine and methamphetamine drug offenses

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For decades, the United States has fought a "War on Drugs" with no success. This war has led to substantial increases in the number of individuals incarcerated in the United States prison system. The following dissertation investigates the impact of the Fair Sentencing Act of 2010 (FSA 2010) on sentencing decisions for crack and powder cocaine offenders sentenced in the federal system. The FSA 2010 is a federal policy that reduced the crack-to-powder cocaine quantity from 100-to 1 to 18-to-1 in an effort to reduce racial/ethnic disparity in sentencing associated with harsh penalties. Specifically, I examined federal crack cocaine and powder cocaine offenders sentenced during the years 2005-2009 (pre-FSA 2010) and 2011-2015 (post-FSA 2010). I begin with a discussion of how the social construction of drug use has framed society's ideas about drugs and how drug offenders should be handled. Second, I outline how the perceived threat of racial/ethnic minorities has contributed the disproportionate number of racial/ethnic minorities in the United States prison system. Data for these analyses are drawn from the United States Sentencing Commission's (USSC) Monitoring of the Federal Criminal Sentences program for the years 2005-2015 and state data from the American



Community Survey, the United States Federal Election Commission, and the FBI's Uniform Crime Report. Multilevel analyses were used to examine the influence of extralegal, legal, and contextual factors on the incarceration decision and the determination of sentence length for federal drug offenders. Results revealed that the FSA 2010 has had some influence on federal sentencing decisions after its introduction. Additional analyses examined sentencing decisions for federal cocaine and methamphetamine offenses to determine whether the factors influencing sentencing decisions for federal drug offenders vary by drug type. The existing literature shows that cocaine and methamphetamine have been socially constructed in different ways, with cocaine production and use framed as a crime problem and methamphetamine as a public health concern. Supplemental analyses revealed that there was no substantive significance in the sentencing outcomes for federal cocaine and methamphetamine offenders. Theoretical and policy implications, limitations, and directions of future research are discussed.



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CHAPTER I

INTRODUCTION

America's criminal justice system, which continues to grapple with the disproportionate number of racial and ethnic minorities imprisoned in jails and prisons, has led to a new phenomenon: mass incarceration. Mass incarceration, a term coined by sociologist David Garland, refers to the unequal distribution of imprisonment that has led to the systematic confinement of particular groups in the United States population (Alexander, 2012; Clear, 2007; Garland, 2001; Reiman & Leighton, 2013; Tonry, 2011). Those most harmed by mass incarceration are racial and minority groups, particularly young black and Hispanic males. Mass incarceration has not only created a racial divide in attitudes toward the criminal justice system, with blacks having little to no trust in the criminal justice system but it has also created a new racial caste system in which racial and ethnic minorities experience cumulative disadvantages as a result of incarceration. These cumulative disadvantages include decreased life chances of success and longevity, lower rates of employment, higher levels of poverty, and family disruption (Alexander, 2012; Kinder & Winter, 2001; Reiman & Leighton, 2013; Cochran & Chamlin, 2006; Western, 2006).

Policymakers and scholars, alike, have attributed mass incarceration to the "War on Drugs" (Mauer & King, 2007). Recent data on the prison population reveal that, at



year-end 2015, approximately 16% of state prisoners and nearly half of federal prisoners were incarcerated for drug-related offenses (Carson & Anderson, 2016). More than half of drug offenders in federal prisons are black or Hispanic. In state prisons, whites, blacks, and Hispanics are similarly represented for drug offenses (roughly 15%; Carson & Anderson, 2016). A great deal of the increase in the imprisonment of minority offenders is the result of crime control policies geared toward drugs.

Drug markets and drug use have had serious and devastating effects in the United States, including drug addiction and abuse and disparities in sentencing outcomes.

Cocaine is one drug, in particular, that has had severe consequences in American society. Millions of individuals have become addicted to the deadly drug, leading to broken and damaged homes, criminal activity, and significant increases in the prison population (Alexander, 2012; Tonry, 2011). An additional problem with cocaine is the sentencing disparity that exists between crack and powder cocaine offenses. Furthermore, although blacks and whites use cocaine at similar rates, a disproportionate number of racial and ethnic minorities have been incarcerated for drug offenses (Mauer & King, 2007).

Federal and state policies created in response to the "War on Drugs" have disproportionately affected racial and ethnic minorities. These policies (e.g., the Anti-Drug Acts of 1986 and 1988) disproportionately targeted crack cocaine use, sale, and distribution in inner-city neighborhoods. After the death of basketball player Len Bias in 1986 from a powder cocaine overdose, politicians and legislators began pushing for more punitive sanctions for crack cocaine, despite the fact that Bias died from an overdose of powder cocaine. Crack and powder cocaine are different forms of the same drug with the same chemical composition and similar effects on the nervous system (Alexander, 2012;



Hecht, 2011). However, the government has mandated federal drug laws that set a sentencing disparity between the two forms. The Anti-Drug Abuse Acts of 1986 and 1988 established a 100-to-1 sentencing disparity between the two drugs and set a mandatory prison sentence for the simple possession of crack (United States Sentencing Commission, 2015a). This meant, for example, that possession of 1 gram of crack cocaine triggered the same penalty as possession of 100 grams of powder cocaine.

After these two policies took effect and many racial and ethnic minorities, particularly young black males, were incarcerated in greater numbers, researchers, politicians, and medical professionals began paying attention to the stark differences between crack and powder cocaine. The overrepresentation of blacks in federal and state prisons has created a social group that now must deal with concentrated levels of poverty and unemployment as well as the increased likelihood of incarceration. In response to the differential treatment of crack cocaine and powder cocaine offenders, President Barack Obama signed into law the Fair Sentencing Act of 2010 (hereafter FSA 2010), which reduced the crack-powder cocaine quantity disparity from 100-to-1 to 18-to-1. The goal of the FSA 2010 was to reduce the sentencing disparity associated with crack and powder cocaine offenses in an attempt to eliminate the racial disparity in crack and powder cocaine sentencing and to reduce the number of offenders incarcerated for low-level crack cocaine possession (United States Sentencing Commission, 2015a).

Scholars interested in racial and ethnic disparities in sentencing have produced a large body of research exploring whether race and ethnicity have a direct or indirect effect on sentencing. Overall findings have revealed that blacks, on average, are more likely to be incarcerated and receive longer sentences than whites (Chiricos & Crawford,



1995; Spohn, 2000; Mitchell, 2005; Steffensmeier, Ulmer, & Kramer, 1998; Zatz, 1987). A growing body of literature addressing the effects of ethnicity on sentencing shows that Hispanics are sentenced more harshly than whites and, in some instances, more harshly than blacks (Brennan & Spohn, 2008; Demuth & Steffensmeier, 2004; Hartley, Maddan, & Spohn, 2007b; Hartley & Miller, 2010; Hartley, Miller, & Spohn, 2010; Johnson, 2006; LaFrentz & Spohn, 2006; Steffensmeier & Demuth, 2000, 2001; Ulmer & Johnson, 2004). Additionally, researchers have observed that race/ethnicity indirectly affects sentencing decisions through both legal (e.g., drug type) and extralegal factors (e.g., gender) to produce differential and disadvantageous sentencing outcomes for blacks and Hispanics.

This dissertation investigates the effects of extralegal, legal, and contextual characteristics on federal sentencing decisions for cocaine offenses before and after the introduction of the Fair Sentencing Act of 2010. Three research questions will guide this study. First, how did the Fair Sentencing Act of 2010 influence sentences imposed on individuals convicted of crack and powder offenses? Second, do the effects of extralegal, legal, and contextual factors on the decision to incarcerate and the determination of sentence length for crack and powder cocaine offenders vary by race/ethnicity? Third, do the effects of extralegal, legal, and contextual factors on the decision to incarcerate and the determination of sentence length for drug offenders vary by drug type (i.e., crack vs. powder cocaine)?

Chapter 2 begins by outlining the role of the media in the social construction of moral panics over cocaine and methamphetamine use. Moral panics are constructed social problems in which an issue, such as drug use, is exaggerated by the media and



political leaders. These exaggerated portrayals increase the fears and concerns of the public which, in turn, lead to calls for action to eliminate the problem (Cohen, 1972, 2002; Goode & Ben-Yehuda, 2009; Young, 1971). The moral panics over cocaine and methamphetamine use led to differential responses for each drug. Cocaine use, particularly crack cocaine use, has been socially constructed as a crime problem, while methamphetamine use has been socially constructed as a health and environmental problem. Second, I provide an overview of federal drug sentencing policies that have been established in response to the moral panics over cocaine and methamphetamine use. Finally, I will discuss extant research on the effects of extralegal, legal, and contextual characteristics on sentencing decisions.

Chapter 3 outlines the theoretical framework guiding the analyses. Racial/ethnic threat perspective assumes that relative increases in the minority population may lead to a sense of threat to the limited resources in society. As a response to the perceived threat, dominant groups may rely on the criminal justice system as a mechanism to keep racial/ethnic minorities in subordinate positions in relation to the dominant groups. I begin my discussion describing the role of the criminal justice system as a racialized social system that aids in perpetuation of the marginalization of certain racial/ethnic groups. Second, I describe Blalock's (1967) power threat perspective, racial/ethnic threat perspective, and existing literature examining this perspective. I conclude the chapter by outlining an integrative approach whereby the Unites States represents a racialized social system in which the criminal justice system is a racial social structure that utilize forms of racialized social controls (e.g., policies and practices).



Chapter 4 describes the hypotheses guiding the analyses. I predict that the Fair Sentencing Act of 2010 will reduce the difference in the likelihood of incarceration and sentence length for crack and powder cocaine offenders sentenced between 2011 and 2015. Additionally, crack cocaine offenders are expected to receive similar sentences as powder cocaine offenders. I also predict that the effects of race/ethnicity will be greater during the years after introduction of the Fair Sentencing Act of 2010 due to the fact that federal judges are allowed more discretion in sentencing decision making. Judges may now rely more heavily on stereotypes of blacks and Hispanics as "dangerous drug offenders" which, in turn, influences the severity of sentences for black and Hispanic drug offenders sentenced at the federal level. Third, Chapter 4 describes the data used to examine sentencing decisions. The data for this study consists of federal crack and powder cocaine offenses drawn from the Monitoring of the Federal Crime Sentences program by the United States Sentencing Commission (USSC) for the years 2005-2009 and 2011-2015. It also utilizes data from the United States Census Bureau's American Community Survey for the years 2008 and 2012, from the United States Federal Election Commission for the years 2008 and 2012, and from the Uniform Crime Reports for the years 2005-2009 and 2011-2015. Finally, Chapter 4 provides an overview of the analyses used in this study. Descriptive analyses will be utilized to describe individual and contextual characteristics. Multilevel modeling will be utilized to explore the effects of extralegal, legal, and contextual characteristics. I close by discussing the steps taken in each model of the analyses.

Chapter 5 discusses the results of descriptive and multilevel regression analyses for crack and powder cocaine offenses for the years 2005-2009 and 2011-2015.



Chapter 6 will describes the supplemental analyses that will explore the impact of sentencing predictors for cocaine and methamphetamine offenses for the years 2005-2015. As previously mentioned, these two drugs have been linked to certain racial and ethnic groups and have been socially constructed in contrasting ways. I will discuss the hypotheses, sample, and measures utilized in the analyses. The data used in this supplemental analysis will also be drawn from the USSC's Monitoring of the Federal Crime Sentences program, the United States Census Bureau, the United States Federal Election Commission, and the Uniform Crime Reports. Descriptive and multilevel analyses were utilized to explore the effects of extralegal, legal, and contextual characteristics on incarceration decisions and the determination of sentence length for federal cocaine and methamphetamine offenders.

Chapter 7 provides an overall summary of the current study. First, I restate the goal(s) of the study. Second, I review and summarize the major findings from both the main and supplemental analyses of the current study. Finally, I will discuss implications for policy, as well as limitations and directions for future research.



CHAPTER II

LITERATURE REVIEW

This chapter begins with a discussion of the social construction of drug use and how the social constructions of race/ethnicity and class framed the moral panics over crack cocaine and methamphetamine use. Next, it examines federal drug sentencing policies that emerged from the moral panics over crack cocaine and methamphetamine. Finally, it provides an overview of existing literature examining the effects of individual-and contextual-level factors on sentencing decisions.

Social Construction of Drug Use

Moral panics over drugs emerged from the social construction of drug use as deviant behavior. Social construction refers to the process through which a particular society or culture defines a social phenomenon in a social context (Goode & Ben-Yehuda, 2009; Bush-Baskette & Smith, 2012). The meanings surrounding social constructs are typically developed from cultural values rather than scientific facts. Social constructions of certain social conditions have been known to evolve into social problems. Social problems are generated from public concerns and fears about a condition that is viewed as deviant or immoral (Goode & Ben-Yehuda, 2009). Social problems are manifested through accounts of the pervasiveness of a particular condition. For example, news outlets may report that drug use is out of control and is being experienced among all groups in society. What is determined to be deviant within a given



society depends on what is judged to be wrong or evil. When there is great concern among members of the public, especially the elite, over a certain behavior or condition, it becomes viewed as a social problem (Goode & Ben-Yehuda, 2009). From social problems emerge what are known as moral panics. First developed by Young (1971) and Cohen (1972), moral panics can be described as conditions viewed as a threat to social values and interests. Moral panics are social constructions that involve claims-making, actual and fabricated, in which the media present messages about a condition that are overexaggerations of the truth. A defining feature of a moral panic is that worst case scenarios are portrayed as typical cases. Although short-lived, moral panics leave a legacy that has severe consequences for individuals in society. (Cohen, 1972, 2002; Goode & Ben-Yehuda, 2009). Moral panics represent the public concern associated with a social problem.

Significant actors in the making of a moral panic include the media, the general public, social control agents, and "folk devils." The media serve as one of the first actors to introduce a moral panic through depictions of conditions as an "epidemic," garnering immediate concern and action. Although there are various actors who influence the creation of a moral panic, the media largely generate the messages associated with a moral panic. It is then that the general public reacts to the media's call for action with increasing concern. A result of both media portrayals and the public's concern is the introduction of social control agents, which include law enforcement officials, legislators, and social action groups. The purpose of social control agents in a moral panic is to establish a remedy or set of remedies to alleviate the epidemic, which may include law enforcement officials taking zealous actions to apprehend those associated with the



epidemic and legislators passing laws and policies to combat the epidemic. The final actors associated with a moral panic are "folk devils," or individuals prescribed negative qualities and attributes due to their involvement in the epidemic. After the media label an individual or group as a "folk devil," others within society focus exclusively on their negative qualities (Cobbina, 2008; Cohen, 1972, 2002; Goode & Ben-Yehuda, 2009). "Folk devils" represent distorted images of marginalized groups that inform public opinion about these individuals and lead to unequal social policies. In the end, the "folk devil" serves as the ideal enemy, the actor liable for the epidemic.

One social problem that has morphed into several moral panics throughout United States history is illegal drug use. There exists a great deal of media accounts of drug use and abuse. All moral panics associated with drug scares contain a single message: "Be afraid – be very afraid" (Goode & Ben-Yehuda, 2009, p. 217). Stories and messages surrounding drug use and abuse tend to exaggerate the harmful effects of that particular drug, the number of users, and the social circles that were more likely to use and abuse the drug. A defining feature of moral panics over drug use is that each drug has been associated with a particular racial or ethnic group. The association of racial/ethnic groups with drugs and their use has been one of the driving forces in pushing harsher penalties for drug crimes.

During the 19th century, the Chinese immigrated to the western United States to assist in building railroads. Their arrival also brought opium, which they smoked to increase their energy to work long hours on the railroads (Chiricos, 1996; Cobbina, 2008; Cohen, 1972, 2002; Goode & Ben-Yehuda, 2009; Reinarman, 1994). The media portrayed the drug as problematic due to Chinese men's use of the drug to seduce white



women into prostitution. These accusations grew out of concerns with Chinese immigrants gaining economic prosperity in the United States. Even though such claims were not proven, legislation was created to make opium illegal (Cobbina, 2008; Reinarman, 1994).

In the 1920s, racial fears were significant in sparking hysteria surrounding cocaine use by blacks. Anti-drug crusaders asserted that cocaine use led black men to rape white women. This fear grew out of concern by whites that blacks would retaliate for the harsh and unequal treatment they had experienced. In the end, the moral panic over cocaine use among blacks was not the result of the drug, but rather the anticipation of rebellion and violence from blacks (Cobbina, 2008; Hoffman, 1990; Reinarman, 1994). By the 1930s, racial and ethnic fears shifted to Mexicans and marijuana use. Fears about Mexicans and marijuana use arose due to increasing unemployment resulting from the effects of the Great Depression and violent crime. The media increased portrayals of Mexicans smoking marijuana, which led 29 states to ban the drug (Chiricos, 1996; Cobbina, 2008; Reinarman, 1994).

More contemporary moral panics, shaped by social constructions of race/ethnicity and class, have involved the use of crack cocaine and methamphetamine. Both drugs are stimulants and, in small doses, increase alertness and energy. Both have also been framed as dangerous, destructive, and undermining the norms of American society. Although similar in some respects, the moral panics over crack cocaine and methamphetamine also contrasted significantly. Crack cocaine was more often associated with inner-city blacks and Hispanics and with violent crime, while methamphetamine was more often associated with poor, Midwestern and Southern whites and with environmental and



public health concerns relating to toxic and combustible chemicals used in methamphetamine production (Cobbina, 2008; Inciardi & McElrath, 2008).

Moral Panic Surrounding Crack Cocaine

The moral panic over crack cocaine began in the spring of 1986, peaking after the death of University of Maryland basketball standout, Lens Bias, and lasting until 1992. Media coverage erroneously attributed Bias' death to the overdose of crack cocaine when, in fact, he died from a powder cocaine overdose. During this time, the media continuously produced news stories and programs on the dangers of crack cocaine. For example, between April and November of 1986, *NBC* ran 400 cocaine-related stories (Chiricos, 1996). Crack cocaine use represented the destruction of the black community and family. It symbolized the cumulative disadvantages experienced by blacks. Rather than addressing the real causes of these disadvantages (e.g., structural inequities), crack cocaine was used a scapegoat to explain black plight.

At the time the moral panic over crack cocaine emerged, there was another drug that was also popular: powder cocaine. Although derived from the same plant, the leaves of the coca plant, there were two stark differences between crack and powder cocaine: the method used to consume the drugs and the individuals most likely to use them. Crack cocaine is a smokable, less pure form of powder cocaine that also produces a quicker high. Powder cocaine, which tends to be more pure, is either snorted, injected, or ingested orally. Crack cocaine use was often associated with urban blacks and the poor, while powder cocaine use was often associated with whites and those in middle- and upper-class neighborhoods (Davis, 2011; Hartman & Goulb, 1999; Hecht, 2011). Media portrayals have contributed to the perception of crack users as being disproportionately



black. For example, Cobbina (2008) found that articles published on crack cocaine between 1985 and 1987 frequently referenced blacks. However, research shows that crack use was similar across racial and ethnic groups (Cobbina, 2008; Inciardi & McElrath, 2008).

The media produced several myths surrounding the crack cocaine "epidemic" of the late 1980s. Media outlets portrayed crack cocaine as the most dangerous and addictive drug on inner-city streets, one responsible for killing urban blacks and Hispanics. However, research has shown that crack cocaine is no more dangerous or addictive than powder cocaine or any other drug (Hartman & Goulb, 1999). One of the most prominent folk devils during the moral panic over crack cocaine was the female crack user. Female crack users were often portrayed as hypersexual or as prostitutes who would engage in sexual activity for crack cocaine, but evidence shows that crack cocaine itself did not automatically transform female crack users into prostitutes. In fact, some women who chose to use crack cocaine did so to "numb" themselves from the life of prostitution. Additionally, research has shown that crack cocaine use lowered sexual inhibitions among females (Boyd, 2002; Hartman & Goulb, 1999; Murphy & Rosenbaum, 1997).

Female crack users were also demonized as selfish mothers who placed their unborn children's lives in danger through their crack use. The crack mother represented the antithesis of femininity and was portrayed as the cause of poverty in black communities. The crack mother was an individual who refused to "kick" her drug habit for the health of her unborn child and who refused to seek and maintain employment in order to care for her children (Carpenter, 2012). From this negative portrayal emerged the



crack baby, who was described as an infant born addicted to crack cocaine. Crack babies were often depicted as victims who suffered from more severe health issues than babies born to mothers who used other drugs or alcohol. The media relied on doctors and other medical professionals to warn the public about the hazards of using crack cocaine while pregnant (Carpenter, 2012; Hartman & Goulb, 1999; Lyons & Rittner, 1998). Later evidence was produced that mothers who abused any drug while pregnant were just as likely as pregnant mothers who abused crack cocaine to have a child who suffered from health-related issues resulting from fetal exposure to toxins. In fact, some research has even argued that the effects of fetal alcohol exposure can be more severe than the effects of fetal exposure to illegal drugs (Hartman & Goulb, 1999; Lyons & Rittner, 1998).

During the rise of the moral panic over crack cocaine, violent crimes increased. This led the media, politicians, and legislators to draw a link between the inner-city crack market and violent crime. Inner-city crack markets were characterized as giving birth to violence, creating crack wars in which gang members engaged in violent crime to secure turf for drug selling. In the end, crack cocaine was blamed for the increases in violent crime (Chiricos, 1996; Cobbina, 2008; Reinarman & Levine, 1997b). Responses to the moral panic over crack cocaine included increased law enforcement presence in urban communities and more punitive laws and policies enacted to reduce crack use and abuse (Reinarman & Levine, 1997b). The annual budget for the anti-drug efforts skyrocketed; in 1981, \$2 billion was set aside to fight the "War on Drugs". By 1993, the budget had reached \$12 billion, with the majority of the funds going to law enforcement agencies (Reinarman & Levine, 1997b). Additionally, more punitive responses led to increases in the prison population, with young minority males being disproportionately represented in

state and federal prisons across the United States. Between 1986 and 1991, black incarceration increased by 242% (Chiricos, 1996). Another drug that experienced a moral panic over its use was methamphetamine

Moral Panic Surrounding Methamphetamine

In contrast to crack cocaine, the moral panic over methamphetamine, which lasted from 2000 to 2007, focused on poor, Midwestern and Southern whites and frequently referenced methamphetamine as a public health concern (Cobbina, 2008; Omori, 2013). In fact, Cobbina's (2008) analyses of methamphetamine articles published between 2001 and 2003 found that no article on the dangers of methamphetamine and its use mentioned blacks. Methamphetamine was considered a dangerous drug for four reasons. First, the drug was described as highly addictive, with highs lasting 8 to 12 hours. Additionally, after the initial high, the user may become agitated and violent. Second, methamphetamine can be manufactured using common household items, including overthe-counter drugs and cleaning supplies. Third, the chemicals produced from cooking methamphetamine have the potential to create public health and environmental issues through the emission of toxic gases (Cobbina, 2008). Fourth, due to the ease of manufacturing, methamphetamine is cheap and has become more popular than cocaine in certain U.S. cities. For example, Linnemann (2010) reported that methamphetamine use was a major problem in Omaha, Nebraska and other Midwestern cities.

Methamphetamine users are often portrayed as "hard workers" who are trying to fulfill multiple obligations (e.g., truck drivers, students, housewives). The "meth mom," for example, uses methamphetamine to make it through the day to accomplish various tasks, such as child and home care responsibilities. Meth moms were depicted as societal



victims who had too much demanded of them, supporting the media's tendency to explain whites' drug use as not being inherent to their innate features (Anglin, Burke, Perrochet, Stamper, & Dawud-Nouri, 2000; Cobbina, 2008; Linnemann, 2010).

Because methamphetamine increases alertness, improves concentration, and aids in weight loss, it is argued to be particularly attractive to middle-class white women.

Jenktot (2008) interviewed 31 incarcerated women about their experiences with methamphetamine and found that participants were first introduced to the drug as a remedy for weight loss. As with portrayals of the "crack mom," the meth baby emerged from media depictions of the meth mom. Meth babies were depicted as suffering from the same birth defects and ailments that plagued the crack baby. Lewis (2005) argued that the caricature of the crack baby provided the framework for the depiction of the meth baby. As with the crack baby, it was later revealed that meth babies were no more likely to suffer from birth defects than babies carried by mothers using other drugs or alcohol. Eventually, the "meth mom" was demonized for her use of methamphetamine because it led her to neglect her children and her other responsibilities. In contrast to the crack mother, the meth mom was depicted as redeemable through media portrayals of her seeking treatment for her addiction (Anglin, et al., 2000; Linnemann, 2010).

Although the meth mom was viewed as a victim, female meth users who engaged in sexual activity or prostitution to procure methamphetamine were vilified for their methamphetamine use. Female drug users who trade sexual favors for drugs are often referred to as "dope ho's." They also sleep with cooks for drugs because their primary function in methamphetamine groups is to keep cooks sexually happy (Jenktot, 2008).



These females were often viewed as victims who were being taking advantage of because of their addiction.

Although the moral panic over methamphetamine failed to highlight the link between methamphetamine and crime, researchers have found that methamphetamine users were just as likely as (if not more likely than) other drug users to engage in criminal behavior. For example, Gizzi and Gerkin (2010) examined criminal behavior among a sample of incarcerated drug users in western Colorado and found that methamphetamine users have more extensive criminal records than other drug users. They also found that methamphetamine users were more likely than other drug users to be involved in drug crimes (e.g., possession) followed by property crimes. Other drug users were no more likely than methamphetamine users to engage in violent crime (Gizzi & Gerkin, 2010).

A distinguishing feature of moral panic over methamphetamine was the environmental and health concerns associated with methamphetamine production. Media depictions of methamphetamine included images and stories about fires and explosions resulting from clandestine methamphetamine laboratories in homes, vehicles, and abandoned buildings. Additionally, the media alerted the public that the chemicals emitted from methamphetamine production can have detrimental effects on the environment and on children and non-meth using citizens exposed to these dangerous chemicals (Anglin, et al., 2000; Cobbina, 2008; Linnemann, 2010; Omori, 2013). The meth cook, or producer of methamphetamine, served as an added "folk devil" in the moral panic over methamphetamine. Although vilified by media coverage and depictions as being responsible for methamphetamine distribution and the environmental hazards relating to methamphetamine production, cooks hold the highest position in the



methamphetamine production hierarchy and are viewed with prestige among methamphetamine users (Jenktot, 2008).

Concerns over the environmental impact of methamphetamine production, as well as its use, led to the passing of the 2005 Combat Methamphetamine Epidemic Act that increased pharmacy regulations of precursor chemicals, including cold and sinus medicines containing pseudoephedrine (e.g., *SUDAFED*). Additionally, law enforcement agencies were provided additional funding and resources to seize methamphetamine laboratories. Seizures of methamphetamine laboratories served as a visible metric of law enforcement efforts to combat methamphetamine manufacturing. Lastly, this piece of legislation was established to increase funding for treatment for methamphetamine users (Cobbina, 2008; Omori, 2013).

In conclusion, social constructions create ideologies that reinforce how things should be in society. When a certain behavior or condition does not align with the established norms of a society, it becomes a social problem. Social problems refer to conditions that have the potential to damage and negatively affect a society. One example of a social problem is the use of illegal drugs. Illegal drugs have been portrayed as substances that can destroy one's life and produce negative societal consequences, including unemployment, poverty, and crime. One consequence of the fears and concerns associated with illegal drug use is the creation of moral panics surrounding illegal drug use. Moral panics are socially constructed problems that exaggerate a specific issue.

More recently, moral panics over crack cocaine and methamphetamine have been created, but have been associated with divergent social groups. The moral panics over these two drugs were developed in similar ways through the identification of folk devils;



however, the public concerns and responses associated with each drug crime differed. The moral panic over crack cocaine use, which was associated with inner-city blacks and Hispanics, depicted users as dangerous individuals who would do anything to get their next "high." Crack cocaine and the inner-city crack markets were also associated with increases in violent crime during the late 1980s. In response, policies were adopted that discriminated against racial/ethnic minorities as a means to maintain social order. As a result, blacks and Hispanics, specifically young minority males, have been disproportionately incarcerated (Alexander, 2012; Mauer & King, 2007; Steffensmeier, et al., 1998). In contrast, methamphetamine use, which was associated with poor, rural whites, was described as a drug that had devastating effects on hard-working men and women who were viewed as societal victims attempting to achieve the "American Dream." Methamphetamine was also described as an environmental concern due to the hazardous chemicals needed for its production. In response, policies were established to eliminate methamphetamine production and provide treatment for users (Anglin, et al., 2000; United States Sentencing Commission, 1999). Inevitably, one moral panic demonized a group of users while the other humanized them.

Overview of Federal Drug Sentencing Policy

Cocaine/Crack

The social construction of crack cocaine as an epidemic led to Congress calling for several initiatives to remedy America's crack cocaine problem. The previously discussed concern over Bias' erroneously reported death from a crack cocaine overdose led Congress to enact the Anti-Drug Abuse Act of 1986, which provided harsh mandatory minimum sentences for crack-related offenses (Alexander, 2012; Bush-Baskette, 2010;



Hartley & Miller, 2010; United States Sentencing Commission, 2015a). This Act established five- and ten-year mandatory minimum sentences for crack and powder cocaine trafficking offenses. Additionally, the Act set a 100-to-1 sentencing disparity between crack and powder cocaine. A person guilty of possessing 5 grams of crack cocaine would receive the same mandatory minimum sentence of five years as a person guilty of possessing 500 grams of powder cocaine (United States Sentencing Commission, 2015a). The mandatory minimum sentences associated with the Anti-Drug Abuse Act of 1986 were the first mandatory minimum penalties established since the repeal of mandatory minimums in 1970 (United States Sentencing Commission, 2015a).

In 1988, Congress passed the Anti-Drug Abuse Act, which made a first-time conviction of simple possession of crack cocaine punishable by a mandatory minimum sentence of at least 5 years of imprisonment. Crack cocaine became the only drug with such a penalty. Additionally, the revision expanded mandatory minimums to the act of conspiring to commit a drug-related crime (Cobbina, 2008; Hartley & Miller, 2010; United States Sentencing Commission, 2015a). This meant that those agreeing to commit a drug-related crime, but failing to do so, were still eligible for the same punishment they would receive had they successfully completed the crime. These sanctions associated with the Anti-Drug Abuse Acts of 1986 and 1988 caused the prison population to increase significantly and led law enforcement officials to disproportionately arrest, convict, and imprison blacks and Hispanics because they were more likely to be profiled as drug couriers (Mauer & King, 2007; Schmalleger, 2011).

By the 1990s, Congress passed the Violent Crime Control Enforcement Act, which required the United States Sentencing Commission to study, observe, and present



information and recommendations relating to the federal cocaine sentencing policy. The findings of the report led Congress and the United States Sentencing Commission to collaborate and implement a "safety valve," which permitted courts to sentence certain low-level drug offenders and those who assisted the state in convicting others of drug crimes, with less than mandatory minimum (United States Sentencing Commission, 2015a). The newly implemented safety valve was also made available to crack cocaine offenders. In 1995, the United States Sentencing Commission provided Congress with one of four reports on the federal cocaine sentencing policy. Racially disparate findings, in terms of who was more likely to be sentenced for crack and powder cocaine offenses, led the United States Sentencing Commission to recommend reducing the crack-powder quantity disparity to a 1-to-1 drug quantity ratio. The United States Sentencing Commission also suggested that Congress revisit the sentences associated with simple possession of crack cocaine (United States Sentencing Commission, 2015a), but Congress rejected their recommendations.

In a 1997 report, the United States Sentencing Commission revisited the effects of the policy in a second report. Once again, the United States Sentencing Commission recommended a change to the drug quantity ratio and mandatory minimum sentence for simple possession of crack cocaine (United States Sentencing Commission, 1997, 2015a). Five years later, in 2002, they published a third report detailing the impact of the federal cocaine sentencing policy. The Commission recommended that the crack-to-powder drug quantity be reduced to 20-to-1 and that Congress eliminate mandatory minimum penalties for simple possession of crack cocaine (United States Sentencing Commission, 2015a).



The Commission argued that crack cocaine still posed a greater threat than powder cocaine; therefore, some disparity was still warranted.

Three Supreme Court decisions are particularly relevant to crack cocaine sentencing: United States v. Booker (2005), Kimbrough v. United States (2007), and Spears v. United States (2009). The Booker case questioned whether sentencing guidelines associated with the crack-cocaine drug quantity ratio should be advisory, allowing judges limited discretion in sentencing for crack cocaine offenses. The Supreme Court ruled that the sentencing judge in a case may consider the sentencing disparity associated with the drug, thereby making the guidelines advisory when determining a sentence for the offense. However, Booker only applied to crack and powder cocaine cases that did not trigger mandatory minimum sentences or in cases where judges imposed additional penalties beyond the statutory minimum. In 2007, the Kimbrough v. *United States* decision granted judges discretion to sentence offenders outside of the ranges associated with federal sentencing guidelines. The United States Sentencing Commission reduced the guidelines for crack cocaine offenses, whereby crack cocaine offense levels corresponded to mandatory minimum penalties rather than exceed them. This allowed courts to reduce offenders' sentences that were based on higher guidelines (United States Sentencing Commission, 2015a). Two years later, in Spears v. United States (2009), the Court ruled that a district court had the authority to substitute crackpowder cocaine drug quantity ratio with one that differed from the original 100-to-1 ratio (United States Sentencing Commission, 2015a).

In August 2010, President Obama signed the Fair Sentencing Act, which limits the rigid mandatory minimum sentences for low-level crack cocaine offenses. The new



law reduced the disparity between cocaine and crack from 100-to-1 to 18-to-1 for the five- and ten-year mandatory minimum sentences that were first established in 1986. Under the new law, possession of 28 grams of crack cocaine triggered the same penalty associated with 500 grams of powder cocaine. The new law did not allow those currently incarcerated or awaiting sentencing for crack cocaine offenses to benefit from the changes in the policy (Tonry, 2011; United States Sentencing Commission, 2015b). However, in 2011, the Commission implemented new penalties resulting from the Fair Sentencing Act, making the changes retroactive. The new penalties applied to convictions occurring on or after August 3, 2010, regardless of when the actual crime took place (United States Sentencing Commission, 2015b). By 2014, Congress reduced the drug guidelines for all drugs by two levels, decreasing the severity of the sentence imposed, and made the change retroactive. The new base offense levels for crack cocaine under the Fair Sentencing Act of 2010 were established so that the mandatory minimum penalties corresponded to levels 26 and 32, with offenses involving 28 grams or more of crack cocaine assigned to level 26 and offenses involving 280 grams or more of crack cocaine assigned to level 32 (see Appendix; United States Sentencing Commission, 2015b).

Methamphetamine

In response to the moral panics surrounding methamphetamine use and production, several policies have been implemented in an attempt to eliminate the manufacturing, distribution, and possession of methamphetamine in the United States. The Anti-Drug Abuse Act of 1988 established five- and ten-year mandatory minimums for methamphetamine trafficking offenses. Similar to the crack-powder cocaine sentencing disparity, sentencing disparities were established for methamphetamine and

methamphetamine mixture. Methamphetamine mixture is a less pure form of methamphetamine or a substance containing a detectable amount of methamphetamine. However, there was a 10-to-1 ratio placed on methamphetamine offenses. A 5-year mandatory minimum was triggered if the offender was convicted of drug offenses involving either 10 grams of pure methamphetamine or 100 grams of methamphetamine mixture. A ten-year mandatory minimum sentence was triggered if the offender was convicted of drug offenses involving 100 grams of pure methamphetamine or 1 kilogram (i.e., 1,000 grams) of methamphetamine mixture (Franco, 2007; United States Sentencing Commission, 1999).

The 1990 Crime Control Act was passed two years later, focusing on a particular form of methamphetamine: Ice. Ice is a crystallized and smokeable form of methamphetamine with purity levels ranging between 80 and 90 percent (United States Sentencing Commission, 1999). In response to concerns that ice would spread across the United States, the USSC assigned the same guidelines for pure methamphetamine to Ice. By 1996, Congress proposed tougher legislation with the Comprehensive Methamphetamine Control Act, which broadened federal restrictions on precursor chemicals and classified over-the-counter cold and sinus medicine as a Schedule II drug. Schedule II drugs are drugs with some medicinal purposes, but have great potential for abuse (Schmalleger, 2011). The act also increased penalties for trafficking and manufacturing methamphetamine and precursor chemicals (Anglin, et al., 2000; Franco, 2007; United States Sentencing Commission, 1999).

The Methamphetamine Trafficking Penalty Enhancement Act, enacted in 1998, reduced the required amount needed to trigger mandatory minimums by half. In order for



an offense to trigger a 5-year mandatory minimum, it had to involve 5 grams of pure methamphetamine or 50 grams of methamphetamine mixture. To trigger the 10-year mandatory minimum, the offense had to involve 50 grams of pure methamphetamine or 500 grams of methamphetamine mixture. These provisions made the penalties for methamphetamine similar to the penalties associated with crack cocaine (United States Sentencing Commission, 1999).

In 2006, Congress passed, as part of the USA PATRIOT Act, the Combat Methamphetamine Epidemic Act, which established additional penalties for the manufacturing of methamphetamine. The act also limited the availability of the chemicals needed to produce methamphetamine in homemade laboratories. Additionally, the act restricted the amount of over-the-counter cold and sinus drugs consumers are allowed to purchase and required that pharmacies document consumer purchases (signed into law and made effective on March 9, 2006; Franco, 2007; Omori, 2013).

Lastly, the act amended federal penalties for methamphetamine production and distribution. First-time offenders possessing 5 to 49 grams of pure methamphetamine or 50 to 499 grams of methamphetamine mixture could receive a sentence ranging from 5 years to life imprisonment and could be fined up to \$5 million. Second-time offenders possessing similar amounts of pure methamphetamine and methamphetamine mixture could receive a sentence ranging from 10 years to life imprisonment and could be fined up to \$10 million (Franco, 2007). First time offenders convicted of possessing 50 grams or more of pure methamphetamine or 500 grams or more of methamphetamine mixture could receive sentences ranging from 10 years to life imprisonment and could be fined up to \$10 million. Second time offenders convicted of possessing similar amounts of pure



methamphetamine or methamphetamine mixture could receive sentencing ranging from 20 years to life imprisonment and could be fined up to \$20 million (Franco, 2007).

Factors Affecting Sentencing Decisions

The following sections discuss previous research exploring the role of individual-level (i.e., extralegal and legal) and contextual factors on sentencing outcomes. First, I begin with describing the previous literature on the effects of extralegal factors, such as race/ethnicity and age, on the incarceration decision and the determination for sentence length. Second, I explore previous research on the influence of legal factors, such as criminal history and offense severity, on sentencing decisions. Finally, I describe existing literature examining contextual factors (i.e., racial/ethnic composition) on sentencing decisions.

Individual-level factors

At the individual level, researchers typically examine the effects of both extralegal factors (e.g., the offender's race/ethnicity, gender, and age) and legal factors (e.g., offense severity and prior criminal record) on sentencing decisions.

Extralegal (i.e., offender-related) factors. Extralegal (i.e., offender-related) factors refer to offender attributes that judges are prohibited from considering in sentencing. They include the offender's race/ethnicity, gender, age, and socioeconomic status. Although extralegal factors, such as employment status, are not expected to influence sentencing, some jurisdiction allow judges to consider offender attributes while other jurisdictions prohibit such consideration. For example, the Illinois Criminal Code states that judges can consider several mitigating factors in sentencing decisions;



however, the Minnesota Sentencing Guidelines prohibit judges from taking into consideration an offender's employment status. At the federal level, sentencing guidelines state that an offender's demographic and social stability characteristics should not be relevant in determining sentencing decisions (Spohn, 2009).

Race/ethnicity. The disproportionate incarceration of blacks and, more recently, Hispanics in federal and state prisons remains an important issue in American society. Although blacks and Hispanics represent relatively small percentages of the general United States population, they are often disproportionately represented in state and federal prisons (Doerner & Demuth, 2010). In 2015, blacks represented close to 36% of all individuals incarcerated in state and federal prisons. Whites represented 34% of all individuals incarcerated (Carson & Anderson, 2016). At yearend 2012, blacks represented roughly 39% and white represented 22% of all drug offenders incarcerated in federal prisons (Taxy, Samuels, & Adams, 2015). These numbers are alarming given that blacks represent only about 13% of the general population. Legislators and researchers alike have increasingly investigated the imprisonment patterns among Hispanics. Hispanics have surpassed blacks in the United States population, with Hispanics making up roughly 17% of the general population. However, Hispanics represent 22% of individuals incarcerated in federal and state prisons and, at yearend 2012, represented 37% of all drug offenders incarcerated in federal prisons (Carson & Anderson, 2016; Taxy, et al., 2015). This disproportionality continues to be a great concern due to the possibility that unwarranted racial disparities in sentencing may be at play.

Nevertheless, when examining the role of race in sentencing decisions, the evidence has been mixed. Some studies find, even after controlling for criminal history



and offense severity, that blacks and Hispanics are more likely to be incarcerated and to receive longer sentences than are whites. (Albonetti, 1997; Chappell & Maggard, 2007; Doerner, 2015; Doerner & Demuth, 2010; Feldmeyer & Ulmer, 2011; Johnson, 2006; Kramer & Steffensmeier, 1993; Martinez & Pollock, 2008; McDonald & Carlson, 1993; Spohn, 2000, 2009; Steffensmeier, et al., 1998; Ulmer & Bradley, 2006; Ulmer & Johnson, 2004; Unnever, 1982). Unnever (1982) found that both blacks and Hispanics were over two times more likely to be sentenced to prison than whites; however, the sentencing differences between whites and Hispanics disappeared when bail type and release prior to trial were added to the model. Steffensmeier and colleagues (1998) observed that blacks were more likely to be incarcerated and received longer sentences than whites; however, the effects of race on sentencing decisions were smaller than the effects of gender and age. Therefore, they concluded that race, in conjunction with gender and age, disadvantaged blacks, particularly young, black males.

More recently, Doerner (2015) found that black offenders received an average sentence length of 92 months, while whites and Hispanics received an average sentence length of 56 and 59 months, respectively. Overall, this evidence reveals that blacks and Hispanics are more likely than whites to be incarcerated and receive longer sentences than whites. These studies also reveal that blacks received more severe sentences than Hispanics; however, there have been studies that found Hispanics received more severe sentence when compared to similarly situated blacks (Hartley & Miller, 2010; Spohn & Spears, 2003; Ulmer & Bradley, 2006; Unnever, 1982). For example, Spohn and Spears (2003) found no racial differences in sentence length among racial/ethnic minorities and



whites; however, they did uncover a difference in sentence length between blacks and Hispanics, with Hispanics receiving longer sentences than blacks.

Other studies find that blacks and Hispanics are more likely to be incarcerated than whites; however, when incarcerated, they receive shorter sentences (Britt, 2000; LaFrentz & Spohn, 2006; Myers, 1989; Myers & Talarico, 1986b; Sacks, et al., 2015). For example, Britt (2000) revealed that blacks were more than 1.5 times more likely to be sentenced to incarceration than non-blacks, but received sentences that were shorter than non-blacks.

Finally, others find that race/ethnicity has no significant effect on sentencing (Brennan & Spohn, 2009; Chiricos & Bales, 1991; Miethe & Moore, 1985; Pratt, 1998; Spohn and Spears, 2003; Williams, 2002). For example, Brennan and Spohn (2009) found that there were no significant racial differences in sentence length among blacks, whites, and Hispanics. Additionally, Miethe and Moore (1985) revealed that race had no significant effect on sentence length in Minnesota.

In another study, Pratt (1998) analyzed 47 race and sentencing studies, published in academic journals between 1974 and 1996. Results showed that race had no significant effect on sentence severity. Pratt (1998) concluded that the way race is operationalized (e.g., black/white or white/non-white) influenced race's effects on sentence severity. When race was measured in the form of white/non-white classification, researchers found a significant racial effect on sentence length that was greater than the black/white or other racial classifications. These findings illustrate that operationalization matters. The way a researcher measures race may mask the true impact of race on sentencing.



An underdeveloped area in race and sentencing research is the effect of race/ethnicity on sentencing outcomes before and after the introduction of a new policy or sentencing guidelines. Findings from this body of research have produced mixed results (Bush-Baskette & Smith, 2012; Crow & Kunselman, 2009; Miethe & Moore, 1985; Myers, 1989). Crow and Kunselman (2009) examined the main and joint effects of race/ethnicity and drug offense type on sentencing decisions for female drug offenders convicted in Florida under two distinct sentencing policies, the 1994 guidelines and the Criminal Punishment Code. The Criminal Punishment Code, which was implemented to replace Florida's 1994 guidelines, allowed judges more discretion in their sentencing decisions. Results revealed that racial/ethnic disparity in sentencing was more pronounced when the new policy allowed for judicial discretion. Under the 1994 guidelines, black females were 27% more likely and Hispanic females were 24% more likely to be incarcerated than white females (Crow & Kunselman, 2009).

Under the Criminal Punishment Code, the likelihood of incarceration for both black and Hispanic females increased to 38%. Race/ethnicity had no significant effect on sentence length under the 1994 guidelines; however, under the Criminal Punishment Code, black and Hispanic females received longer prison terms than did whites (Crow & Kunselman, 2009). More recently, Bush-Baskette and Smith (2012) examined the effects of ethnicity on sentencing among female methamphetamine offenders before (year 1996) and after (year 2006) the introduction of the 2005 Combat Methamphetamine Epidemic Act. Ethnicity proved to be a positive and statistically significant predictor in the determination of sentence length in 2006, but not in 1996. Hispanic females received longer prison sentences than did non-Hispanic females in both time periods.



There are three explanations that have been identified as contributing to the overrepresentation of blacks and Hispanics in the criminal justice system. One explanation is that racial discrimination has become more structural and is exhibited through the passing of laws and policies that disproportionately impact racial/ethnic minorities. The policies associated with the "War on Drugs" is one such example in which policies relating to crack cocaine offenses were disproportionately applied to blacks and Hispanics in inner-city neighborhoods (Provine, 2011; Reinarman & Levine, 1997a, 1997b). A second explanation has been that racial/ethnic minorities are disproportionately involved in criminal behavior and, therefore, are more likely to be have longer criminal histories than are whites. Due to the extensive criminal records, minorities are more likely to be incarcerated than whites and receive longer sentences (Spohn, 2000; 2009). A third explanation of racial disparity in sentencing is the negative stereotypes associated with racial and ethnic minorities. Research conducted by Steen, Engen, and Gainey (2005) and, more recently, by Spohn and Sample (2013) revealed that black offenders were more likely than either white or Hispanic offenders to have the characteristics of a dangerous drug offender when it comes to sentencing. Steen and colleagues (2005) defined the dangerous drug offender as a black male with an extensive criminal record convicted of drug trafficking. Additionally, research conducted by Steffensmeier and colleagues (1998) on judges' perceptions of offenders revealed that judges perceived criminal behavior committed by minorities, particularly young, black males, as more serious. Judges may believe that minority offenders were at a greater risk of offending, a threat to the community, and more able to handle incarceration than white offenders; therefore, judges may sentence them more severely than whites.



Race and ethnicity continue to be defining factors affecting sentencing decisions at both the federal and state level. However, the true effects of being black or Hispanic on sentencing decisions have been shown to be masked by other extralegal and legal factors. Overall, evidence suggests that race has a more pronounced and consistent effect on the decision to incarcerate than on the determination of sentence length (Chiricos & Crawford, 1995; Spohn, 2000, 2009; Steffensmeier, et al., 1998). Blacks and Hispanics are more likely than whites to be incarcerated; however, research on sentence length is less consistent. On the one hand, blacks and Hispanics may receive longer sentences than whites (e.g., Albonetti, 1997; Doerner, 2015; Steffensmeier, et al., 1998) while, on the other hand, blacks and Hispanics may receive shorter sentences (e.g., Britt, 2000; LaFrentz & Spohn, 2006; Myers, 1989; Myers & Talarico, 1986a; Sacks, et al., 2015). It can be suggested from these findings that the effects of race/ethnicity on sentencing are not uniform; rather, they are fluid, interacting with legally relevant factors (e.g., criminal history) and other extralegal factors (e.g., gender and age) to disadvantage blacks and Hispanics. To better understand the effects of race/ethnicity on sentencing decisions, researchers must account for race and ethnicity's effects on individual- and contextuallevel factors. The following sections discuss the effects of additional extralegal, legal, and contextual factors on sentencing and how race/ethnicity interacts with them to produce differential sentencing outcomes for whites, blacks, and Hispanics.

Gender. Research on gender consistently finds that female offenders tend to be punished more leniently than their male counterparts. Even after controlling for offense severity and criminal history, females are significantly less likely to be incarcerated and receive significantly shorter sentences than males (Albonetti, 1997; Blowers & Doerner,



2015; Bradley-Engen, et al., 2012; Crew, 1991; Doerner, 2015; Johnson, Kennedy, & Shuman, 1987; Kautt, 2002; Koons-Witt, et al., 2014; LaFrentz & Spohn, 2006; Spohn, 2009; Steffensmeier, et al., 1998; Sacks & Ackerman, 2014; Ulmer & Bradley, 2006; Ulmer, et al., 2010). Johnston, Kennedy, and Shuman (1987) investigated the impact of gender on the relationship between offense seriousness and the sentences imposed on males and females convicted of personal and property crimes. Results showed that females were more likely to have their charges reduced through plea bargains and were less likely to be incarcerated in jail or prison. When incarcerated, females also received leniency in sentence length (Johnston, et al., 1987). Crew (1991) analyzed separate models of male and female felony defendants to determine gender differences in legal and extralegal factors on sentencing. Although Crew (1991) found that males were sentenced to longer prison terms than were females, gendered differences were attributed to the offense seriousness and charge severity.

In another study, LaFrentz and Spohn (2006) found that gender had a significant direct effect on sentence length, with females receiving sentences that were 11 months shorter than those for males. Steffensmeier and Demuth (2006) revealed that males were 71% more likely to be incarcerated and received sentences that were 20% longer than those for females. Kautt (2002) observed that female drug offenders received a sentence that was about 4 months shorter than the sentence received by male drug offenders.

In contrast, some studies have concluded that males are sentenced no differently from females or that the relationship between gender and sentencing was relatively weak. Daly and Bordt (1995) examined sentencing studies published through the mid-1980s to determine what aspects of each study influenced gender differences in sentencing. They



found that there was no case in which overall results showed males receiving more favorable sentencing outcomes than females. Daly and Bordt (1995) concluded that the quality of the study impacted the relationship between gender sentencing; studies involving more advanced analytical procedures and those that included measures for offense severity and criminal record were less likely to produce gendered effects.

Steffensmeier, Kramer, and Streifel (1993) used Pennsylvania data collected between 1985 and 1987 to assess whether gender differences exist in imprisonment decisions, revealing that gender was weakly correlated with sentence outcomes. Gender had a small to moderate effect on the incarceration decision and no effect on the sentence length decision. Males were more likely to be incarcerated and received longer sentences because they committed more serious offenses and had lengthier prior records (Steffensmeier, et al., 1993). When judges were asked their reasons for departing from sentencing guidelines for females, reasons were based on legal and paternalistic considerations. Legal considerations included females having a minor prior record and playing a minor role in the offense while paternalistic considerations related to childcare responsibilities and females showing remorse for their crimes (Steffensmeier, et al., 1993).

The joint effects of race and gender have also been found to influence sentencing outcomes; however, findings on the interactive effects of race/ethnicity and gender have been mixed. Steffensmeier and colleagues (1998) found that the effects of race were weaker for females than males. Steffensmeier and Demuth (2006) revealed that males, in general, received the harshest sentences; however, black and Hispanic males received more severe sentences than white males, with Hispanic males receiving the harshest



sentences. They suggested that white males benefit from being white but are penalized for being male, while black and Hispanic males are penalized for being both male and minority.

Doerner & Demuth (2010) found that the gender gap in sentencing decisions was greatest for blacks and Hispanics when compared to whites. Black and Hispanic males were more likely to be incarcerated than were white males; however, there were no racial differences in the likelihood of incarceration for females. A similar pattern was found for sentence length. Crew (1991) observed that race affected sentence severity for men, with black males receiving longer sentences than whites and Hispanics; race also interacted with prior record and offense severity, such that black male offenders were sentenced more severely.

Brennan and Spohn (2009) analyzed race and ethnicity effects among a sample of drug offenders and found that race had an effect on sentence length for males, but not for females. Specifically, black male drug offenders received longer sentences than did their white counterparts; however, there were no differences in sentence length between white and Hispanic male drug offenders. The effects of gender on the relationship between race and sentencing revealed that gender had a direct effect on sentence severity on blacks and Hispanic offenders, but not white offenders (Brennan & Spohn, 2009; Spohn, 2009). Black and Hispanic males, on average, received longer sentences than female counterparts while white males and white females were not sentenced differently.

LaFrentz and Spohn (2006) found that the relationship between sentencing and gender was conditioned by race/ethnicity. Gender was found to affect sentence severity for blacks and Hispanics, but not for whites. Black and Hispanic females received



sentences that were shorter than those received by black and Hispanic males; however, there was no significant differences in sentencing for white females and males. LaFrentz and Spohn (2006) suggest that judges may view black and Hispanic female drug offenders in a more sympathetic light than other offenders convicted for drug offenses.

An often-debated issue relating to the effects of race/ethnicity on the gender-sentencing relationship is whether racial/ethnic minority females are treated more harshly than white females by the criminal justice system. Prior literature has shown that these results have been mixed as well. For example, Brennan and Spohn (2009) concluded that there was little evidence to indicate that white women receive preferential treatment relative to other women, suggesting that female offenders, regardless of race/ethnicity, are perceived as less dangerous, less blameworthy, and more likely to be amended through rehabilitation.

Crow and Kunselman (2009) found that black and Hispanic females had a greater likelihood of incarceration than white females. However, Doerner (2015) found that white females were more likely to be incarcerated than black and Hispanic females, and were more likely to receive longer sentences than were Hispanic females. Steffensmeier & Demuth (2006) revealed that the likelihood of incarceration was similar for black and white females, but Hispanic females were the most likely to be incarcerated. However, when it came to sentence length, Hispanic females received the shortest sentence while black females received the longest sentences.

How females are racially constructed may impact how they are sentenced. White females are often depicted as passive, dependent, and in need of protection by their male counterparts; however, the portrayals of racial and ethnic females, particularly blacks and



Hispanics, have differed greatly from those of white women. Black females have been stereotyped as dangerous and aggressive in comparison to their white female counterparts (Brennan, 2006; Young, 1986). This image of black females is perceived as a threat to both patriarchy and the black community (Brennan, 2006). Specifically, the ideals of self-reliance and assertiveness established in the slave community contradict the ideals of patriarchy. As for Hispanic females, they are often depicted as gang members, drug users, and "irresponsible mothers of gang members" (Brennan, 2006, 65). Such portrayals of black and Hispanic females may lead judges to assume they are both deserving of harsher punishment and more capable of serving such punishments in comparison to white females.

An explanation identified in explaining gender differences in sentencing argues that females tend to commit fewer and less serious offenses than do males, thereby decreasing their likelihood of contact with the criminal justice system. As a result, judges tend to perceive male offenders as more dangerous and posing a significant threat to society (Steffensmeier, et al. 1995, 1998).

Females receiving more lenient sentences than males has also been linked to chivalry and paternalism. Chivalry refers to the assumption that men are less willing to inflict additional harm on women by incarcerating them for their criminal actions while paternalism refers to the idea that women are less responsible for their actions and, therefore, need to be protected (Adler, 1975; Crew, 1991; Helms & Jacobs, 2002; Simon, 1975; Spohn & Spears, 1997; Steffensmeier, et al., 1995, 1998). Research shows that not all women benefit from chivalry and paternalism. Women who violate standard gender norms and who engage in "unfeminine" criminal behavior that is outside the bounds of



traditional sex role expectations are sentenced more harshly, receiving equal or more severe sanctions than men convicted of similar crimes (Crew, 1991; Koons-Witt, et al., 2014; Spohn & Spears, 1997).

Lastly, judges may believe that incarcerating females would present additional consequences associated with the disruption of family ties and support (Steffensmeier, et al., 1998). Judges are concerned with the issue of placing children when mothers are incarcerated. Additionally, having dependents exerts informal social control over individuals. Those with dependents are treated more leniently by the courts because they are perceived as more integrated in society through their familial ties (Brennan, 2006; Steffensmeier, et al., 1995). Consistent with this idea, studies find that having children reduces sentence severity for females (e.g., Crew, 1991). Brennan (2006) found that community ties and having children had direct effects on sentence outcomes for female misdemeanants. Females who were weakly tied to the community or who were childless had an increased likelihood of receiving a jail sentence.

Age. The relationship between age and sentencing has received less attention, despite the fact that age effects on sentencing decisions have been found at both the state and federal levels. A few studies have examined the direct effects of age on sentencing decisions (Blowers & Doerner, 2015; Champion, 1987; Mueller-Johnson & Dhami, 2010; Steffensmeier, Kramer, & Ulmer, 1995; Wilbanks, 1988; Wu & Spohn, 2009). Early studies conducted by Champion (1988) and Wilbanks (1988) explored the relationship between age and sentencing and found that offenders aged 60 and older received shorter sentences than offenders younger than 60 years old. The age difference in sentencing was found across different offense types (Champion, 1988; Wilbanks, 1988). Although both



Champion (1988) and Wilbanks (1988) found direct effects of age on sentencing, both studies failed to account for offense severity or prior criminal history.

Steffensmeier, Kramer, and Ulmer (1995) were the first to conduct analyses on the overall effect of age on sentencing decisions, accounting for the effects of offense severity and prior criminal history. They incorporated two models to determine the effects of age and sentencing decision. The first model examined age as a continuous variable, representing a linear relationship between age and sentencing, and the second model examined age as a quadratic term, representing a curvilinear relationship between age and sentencing (Steffensmeier, et al., 1995). Bivariate correlations revealed that age (in years) had insignificant, negligible effects on sentencing, while age squared (the quadratic term for age) was found to be significant. This finding showed the agesentencing relationship to be curvilinear, with younger and older offenders receiving more lenient sentencing outcomes than those in the middle of the age distribution.

Regarding the decision to incarcerate, Steffensmeier and colleagues (1995) found that although offense seriousness and lengthy criminal records were the two strongest predictors of the incarceration decision, age did influence sentencing. Offenders between the ages of 20 and 29 faced the largest odds of incarceration. They concluded that the likelihood of incarceration increases until offenders reach their thirties, then decreases for offenders 40 years of age and older (Steffensmeier, et al., 1995). These findings support the assumption that the relationship between age and sentencing is curvilinear. Analyses were also conducted to determine if the age-sentencing relationship is similar for violent, property, and drug offenses. It was found that, for all offense groups, the age-sentencing relationship was curvilinear, with advancing age having the greatest advantage for violent



offenses and the smallest advantage for drug offenses (Steffensmeier, et al., 1995). These findings suggest that, on the one hand, judges may perceive older offenders as less of a threat to community and less able to serve time, given their age and health. However, on the other hand, judges may believe that drug offenders are less likely to engage in future drug crimes, which results in the smaller advantages of age on sentencing for drug offenses.

Regarding sentence length, evidence suggests that offenders between the ages of 20 and 29 received the longest sentences and offenders aged 60 and older received the shortest sentences (Steffensmeier, et al., 1995). Eighteen- and 19-year-old offenders received sentences that were about one month shorter than those imposed on offenders aged 30 to 39, while offenders 60 years of age and older received sentences that were nine months shorter than those imposed on offenders aged 30 to 39. This curvilinear relationship was found to be greatest for violent offenders and smallest for drug offenders. Further analyses by Steffensmeier and colleagues (1995) revealed that, at about age 27, the relationship between age and sentencing becomes linear.

Steffensmeier and Motivans (2000) explored the direct effects of age on sentencing outcomes using Pennsylvania state sentencing data for years 1990-1994. The age effect was found to be similar across offense types. The old age advantage was greater for violent and property offenses than drug offenses. Offenders 60 years of age and over received sentences that were about three months shorter than those imposed on their younger counterparts (Steffensmeier & Motivans, 2000). Violent or property offenders received sentences that were about 7-14 months shorter than those imposed on drug offenders. Steffensmeier and Motivans (2000) concluded that age has a smaller



impact on drug offenses because judges may view drug offenders, regardless of age, as incapable of reform and therefore likely to commit future drug offenses.

More recently, Blowers and Doerner (2015) examined whether judges are inclined to apply leniency when sentencing offenders 50 years of age and older. They specifically examined three categories of older offenders, the young-old (ages 50 to 54), the middle-old (ages 55 to 64), and the old-old (ages 65 and over). Analyses of federal sentencing data revealed that 'young-old' offenders were most likely to be incarcerated while 'old-old' offenders were least likely to be incarcerated. When incarcerated, offenders 65 and over received longer sentences than offenders in the 50 to 54 age group (Blowers & Doerner, 2015). Additionally, older offenders sentenced for drug violations were more likely to be incarcerated and to receive longer sentences.

Wu and Spohn (2009) conducted a meta-analysis using 60 studies to determine whether age is a significant factor in deciding sentence length, the magnitude of the age effect, and the existence and impact of moderators on the varying effect sizes of age on sentence length. Findings revealed that the effect size of age, in more than half of the studies, was not significant. Of those studies found to have a significant effect size, about 19% had a positive effect while roughly 22% had a negative effect. Age had a stronger effect on sentence length in federal courts than in state courts, with the relationship being negative in federal courts and positive in state courts. Wu and Spohn (2009) concluded that the direct effect of age is suppressed by the direct effects of race/ethnicity and gender. Studies controlling for prior criminal record found the relationship between age and sentence length to be positive while those studies not controlling for prior criminal record produced a negative age-sentencing relationship. When case disposition was



controlled in the study, younger offenders received longer sentences; however, in those studies not controlling for case disposition, older offenders received longer sentences (Wu & Spohn, 2009).

The interactive effects of age on both offense- and offender-related characteristics have also been explored. Steffensmeier and colleagues (1998) explored the interactive effects of race/ethnicity, gender, and age on sentencing decisions in Pennsylvania. They observed that the influence of age depended on gender, finding that young, black, male offenders received the most severe sentences. However, Doerner and Demuth (2010) found that young, Hispanic, male offenders were the most likely to be incarcerated, while young, Black, male offenders received longer sentences. Additionally, the youngest Hispanic female offenders received sentences that were more similar to male offenders than other female offenders. Blowers and Doerner (2015) found that black offenders 50 years of age and older were sentenced more leniently than their white counterparts, with the odds of incarceration for older black offenders being 21% lower than those for older white offenders. However, when incarcerated, older black offenders received sentences that were about 7% longer than the sentences imposed on older white offenders.

Various explanations have been provided to explain why younger and older offenders are less likely than offenders who fall in the middle of the age distribution to receive severe sentences. Younger offenders are less likely to be incarcerated because they are still viewed as not fully culpable for their criminal behavior due to their lack of maturity. Another explanation is that judges may want to protect younger offenders from older prisoners as a way to prevent exposure to more serious criminal behavior. Lastly, judges may view younger offenders as more amenable to reform (Blowers & Doerner,



2015; Doerner & Demuth, 2010; Steffensmeier, et al., 1995; Steffensmeier & Motivans, 2000; Wu & Spohn, 2009).

As for older offenders, they are less likely to be incarcerated and sentenced to prison for a variety of reasons. First, judges are less likely to sentence older offenders to prison due to the belief that older offenders pose a less serious threat to the community when compared to younger offenders. Second, older offenders may place an added burden on the criminal justice system as a result of health issues associated with old age. Incarcerating older offenders can be financially costly and can pose special problems for prisons, including poor health and dietary restrictions. The cost of incarcerating an older offender can be twice that of a younger offender (Blowers & Doerner, 2015). Third, if sentenced and incarcerated, older offenders may be vulnerable to aggression at the hands of younger offenders. Fourth, judges may consider the impact sentencing may have on an older offender's remaining life. When considering a prison sentence as the proportion of an offender's life, a "year of imprisonment given to an older offender is much more 'severe' than a year of imprisonment for someone in their early twenties" (Blowers & Doerner, 2015, 61). Lastly, older offenders are viewed as being better able to reform themselves and as less likely to possess pervasive criminal tendencies; however, this assumption is not applied to offenders convicted of drug-related crimes (Steffensmeier, et al., 1995; Steffensmeier, et al., 1998; Wu & Spohn, 2009).

Socioeconomic status. Studies have shown that individuals who come from a disadvantaged background are more likely to receive severe sentences while those from more advantaged backgrounds receive some level of leniency in their sentencing (Albonetti, 1997; Doerner, 2015; Kruttschnitt, 1980; Miethe & Moore, 1985; Sharp, et



al., 2000). Some variables used to account for an individual's social status include educational attainment, employment status, and attorney type. Educational attainment affects sentencing in two ways. First, educational attainment is linked to positive outcomes, such as stable employment, which can directly influence judges' perceptions of dangerousness or threat of future offending, such that judges may willing to give better educated offenders an opportunity for reformation. Second, educational attainment may be viewed as a more acceptable extralegal factor than race/ethnicity, gender, or age by judges when making sentencing decisions; thus, judges may be more willing to consider educational attainment when making sentencing decisions (Franklin, 2017). Consistent with these ideas, Albonetti (1997) found that offenders with at least a high school education received shorter sentences than those with less than a high school education.

More recently, Franklin (2017) examined the effects of educational attainment, as the primary independent variable, on the decision to incarcerate and sentence length.

Offenders who did not graduate from high school were more likely to be incarcerated and received longer sentences than high school graduates. High school graduates received sentences that were significantly shorter than the sentences received by those with less than a high school education (Franklin, 2013). However, in terms of both the incarceration and sentence length decisions, college graduates were treated no differently than offenders who dropped out of high school. In another study, Miethe and Moore (1985) found that educational attainment had a significant effect on the decision to incarcerate, but not on the determination of sentence length. Specifically, those with less than a high school education were more likely to be incarcerated than those with at least a high school education.



Other studies have found that educational attainment has no effect on sentence severity (Bradley-Engen, et al., 2012; Brennan & Spohn, 2008, 2009; Bush-Baskette & Smith, 2012; Hartley & Miller, 2010; LaFrentz & Spohn, 2006; Kautt & Spohn, 2002). For example, Bradley-Engen and colleagues (2012) found that education had no impact on sentence length for offenders charged with terrorism. Furthermore, Brennan and Spohn (2008, 2009) revealed that educational attainment did not influence sentence length among drug offenders.

Studies have also found that the effect of educational attainment on sentencing decisions varies by race. According to Franklin (2017), educational attainment serves as a mitigating factor that shields against the disadvantages associated with the criminal stereotyping of blacks and Hispanics. He found that Hispanics were more likely than whites to be incarcerated and that being black was not significantly related to the odds of incarceration. The effect of educational attainment reduced the effect size of being Hispanic on the incarceration decision, but had no effect on sentence length (Franklin, 2017).

Furthermore, Albonetti (1997) found that the effect of educational attainment on sentence outcomes was significant for blacks and whites, with the effect being greater for white defendants. Whites received twice the reduction in sentence length for having at least a high school education. Ethnicity conditioned the effect of educational attainment on the probability of incarceration and the determination of sentence length, such that it produced advantageous sentencing outcomes for whites (Albonetti, 1997). Doerner (2015) found that the effects of educational attainment were greater for Hispanics than for blacks and whites, partially supporting the idea that educational attainment serves as a



mitigating factor for racial and ethnic minorities. However, Brennan (2006) observed that whites benefited more from greater educational attainment than blacks and Hispanics.

A second factor often used as a measure of socioeconomic status is employment status. Research examining the relationship between employment status and sentencing decisions has consistently found that unemployed offenders receive harsher sentences than employed offenders (Brennan, 2006; Brennan & Spohn, 2009; Chiricos & Bales, 1991; Crew, 1991; Kruttschnitt, 1980; Nobiling, Spohn, & DeLone, 1998; Spohn & Holleran, 2000; Unnever, 1982). Unemployed individuals are characterized as dangerous and threatening because they are perceived to be more likely to engage in crime as a means of obtaining financial resources. Research suggests that judges view unemployment as a threat to social order because it is believed to be a cause of crime and such a belief feeds harsher sentencing sanctions (Box & Hale, 1985; Kruttschnitt & McCarthy, 1980; Spitzer, 1975; Spohn & Holleran, 2000).

Unnever (1982) found that those who were unemployed at the time of their arrest were twice as likely as those who were employed to be sent to prison. Chiricos and Bales (1991) explored the influence of unemployment on punishment among adult felons and misdemeanants and found that unemployment had a strong and direct influence on sentencing decisions, with unemployment having a more consistent effect on the decision to incarcerate than on the determination of sentence length (also see Kruttschnitt, 1980; Myers, 1987; Miethe & Moore, 1985). Unemployed offenders were 3.2 times more likely than employed offenders to be incarcerated.

Nobiling and colleagues (1998) examined the relationship between employment status and sentence severity among felony offenders in Chicago and Kansas City. Results



revealed that employment status had a direct effect on the decision to incarcerate in Kansas City, but not in Chicago. Unemployed offenders in Kansas City were 1.5 times more likely than employed offenders to be incarcerated (Nobiling, et al., 1998). In Chicago, unemployed offenders did not face greater odds of incarceration; however, when incarcerated, they received sentences that were almost eight months longer than the sentences imposed on those who were employed.

Employment status has interacted with race/ethnicity in such a way that unemployed blacks and Hispanics had a greater likelihood of incarceration than employed blacks, unemployed Hispanics and all whites. The intersection of unemployment and race create a perception of "social dynamite," or individuals believed to pose an actual or perceived political threat to society. Such perceptions increase the likelihood of incarceration for the unemployed and for blacks (Chiricos & Bales, 1991; Spitzer, 1975). Chiricos and Bales (1991) found that unemployment influenced the incarceration of males, young males, and young black males; however, the effects of unemployment were greatest for young black males (also see Nobiling, et al, 1998). Spohn and Holleran (2000) observed that employment status was conditioned by gender and race/ethnicity in Kansas City, but not in Chicago. Unemployment interacted with both race/ethnicity and gender such that unemployed black and Hispanic males were sentenced more harshly. Unemployed whites and employed black and Hispanic males did not receive sentences that were significantly different from employed white males. Additionally, they found employment status had no effect on incarceration decisions among whites (Spohn & Holleran, 2000). In contrast, LaFrentz and Spohn (2006) also found that employment status was conditioned by race/ethnicity, with employment status



only affecting sentencing for whites. Unemployed white offenders received longer sentences than employed white offenders, suggesting that being employed benefits whites. These findings also imply that, regardless of employment status, racial and ethnic minorities are viewed as more dangerous and less amenable to rehabilitation. These stereotypical images of racial and ethnic minorities appear to weaken the advantageous effects of employment status for blacks and Hispanics. Nobiling and colleagues (1998) suggest that judges may perceive unemployment differently for white offenders and minority offenders. Unemployment rates tend to be higher among minorities than whites; therefore, judges may perceive unemployment as temporary for white offenders and as a permanent condition of minority offenders, particularly young black or Hispanic male offenders.

A third measure that has been used to examine the effects of social class on sentencing decisions is attorney type. The Sixth Amendment guarantees the right to counsel in most criminal prosecutions; however, the quality of representation is not guaranteed. There are three types of defense: private, public, and assigned. Defendants can retain a private attorney if they are able to afford one. If the accused is unable to afford an attorney, a public defender may be appointed to him or her by the government. Additionally, indigent defendants may be assigned counsel. Similar to a public defender, assigned counsel are private attorneys that are appointed indigent clients on a needed basis (Cohen, 2014). Public defenders are oftentimes the only option for poor defendants because these attorneys assist clients without any fees imposed on the client. Most defendants require court-appointed counsel, or public defenders, because of their inability to afford to retain a private attorney. In addition, those represented by public defenders



are disproportionately racial and ethnic minorities (Hartley, Miller, & Spohn, 2010; Williams, 2002).

Research examining the influence of attorney type, public or private, on sentencing decisions has been limited, with results being inconclusive at best (Brennan & Spohn, 2008; Cohen, 2014; Hartley, et al., 2010; Martinez & Pollock, 2008; Spohn & Holleran, 2000; Williams, 2002). For example, Brennan and Spohn (2008) and Hartley and colleagues (2010) found that attorney type had no influence on whether drug offenders were sentenced more severely. Williams (2002) observed that attorney type did not affect the likelihood of probation, the decision to incarcerate, or the determination of sentence length.

In a more recent study, Cohen (2014) explored the role of attorney type on conviction, the decision to incarcerate, and the determination of sentence length for a random sample of felony cases in the 75 most populous United States counties. Results revealed that defendants represented by either private attorneys or public defenders were similarly convicted and incarcerated and sentenced to similar jail or prison terms (Cohen, 2014). Defendants assigned counsel (i.e., private attorneys hired on a needed basis) were more likely to be convicted than defendants appointed a public defender; however, the likelihood of receiving some form of incarceration (jail or prison) was similar for the two groups. Differences in sentence length between defendants with private attorneys and defendants with public defenders were statistically insignificant.

Three conclusions can be drawn from these findings. First, private attorneys and public defenders provide equal representation for their clients. Second, public defenders have a sufficient working relationship with other courtroom actors which allows for



favorable outcomes for their clients. Third, the fact that there are no sentencing differences based on attorney type may be the result of sentencing guidelines and mandatary minimum sentences, which require judges to impose certain punishments and therefore limits attorneys' ability to present favorable deals for their clients (Chappell & Maggard, 2007; Cohen, 2014; Hartley, et al., 2010; Williams, 2003).

There have been a few studies finding that attorney type has a disadvantageous effect on sentencing decisions because private attorneys may have access to more resources than assigned counsel and public defenders to sufficiently defend their clients (Unnever, 1982; Martinez & Pollock, 2008; Wolf-Harlow, 2000). For example, Unnever (1982) found that defendants with public defenders were twice as likely as defendants with a private attorney to be sentenced to prison. Unnever (1982) concluded that a defendant's economic status was indirect, through a defendant's ability to retain a private attorney. Wolf-Harlow (2000) found that offenders represented by public defenders were more likely to be incarcerated and those represented by private counsel received longer sentences. Additionally, sentencing differences based on attorney type were largest for drug offenses. Drug offenders represented by public defenders were more significantly more likely to be incarcerated and received longer sentences than drug offenders represented by private attorneys

Studies have also examined the interactive effects of attorney type with other individual-level factors (Cohen, 2014; Hartley, et al., 2010; Martinez & Pollock, 2008; Williams, 2002). Cohen (2014) assessed the interactive effects of offense type and attorney type on criminal justice outcomes and found that attorney type partially impacted sentence length for drug offenses. Specifically, drug defendants with private



attorneys received longer sentences than drug defendants with public defenders (Cohen, 2014). There was no statistically significant difference in sentence length for drug offenses between defendants with assigned counsel and defendants with public defenders. Martinez and Pollock (2008) assessed whether race/ethnicity influenced the role of attorney type on sentence severity and concluded that, regardless of race/ethnicity, offenders who retained a private attorney were less likely to be sentenced to jail or prison when compared to offenders who were appointed a public defender. However, the effects of attorney type were greater for blacks and Hispanics.

In contrast, Hartley and colleagues (2010) assessed the interactive effects of offense type, race/ethnicity, and gender on the decision to incarcerate and sentence length. Attorney type failed to significantly interact with offense type, race/ethnicity, or gender to influence sentencing decisions. Williams (2002) found that the interaction between race and attorney type had no significant influence on the likelihood of probation, the decision to incarcerate, or sentence length.

In the end, it is important to continue to examine the effects of socioeconomic factors on sentencing decisions. Although the relationship between socioeconomic status and sentencing is inconsistent, it can be concluded that socioeconomic status is not a strong predictor of the decision to incarcerate or the determination of sentence length. Socioeconomic factors may interact with other factors, including race/ethnicity, to disadvantage certain offenders.

Legal (i.e., offense-related) factors. Legal factors refer to case and offense characteristics that judges take into consideration when deciding sentencing outcomes; studies consistently find that they are the most significant predictors of sentencing



outcomes (Hartley, Miller, & Spohn, 2010). These factors include the seriousness of the crime, the type of crime committed, and the offender's prior criminal record. Most sentencing research finds that offense severity and criminal history are the strongest predictors of sentencing decisions (including Albonetti, 1997; Kautt, 2002; Kramer & Ulmer, 1995; Spohn, 2009; Steffensmeier, Kramer, & Strefiel, 1993; Ulmer & Johnson, 2004). Researchers have also examined case processing factors, such as pretrial release status and case disposition, to determine whether those held prior to disposition and those who plead guilty receive differential treatment. Failure to include such these measures has the potential to lead to erroneous conclusions relating to judicial decision making.

Offense severity and type. The severity and type of the offense and the offender's criminal history affect both the likelihood of incarceration and the determination of sentence length (Albonetti, 1997; Brennan, 2006; Bradley-Engen, Engen, Shield, Damphousse, & Smith, 2012; Hartley, Maddan, & Spohn, 2007a; Kautt, 2002; Koons-Witt, Sevigny, Burrow, & Hester, et al., 2014; Sacks & Ackerman, 2014; Spohn, 2009; Steffensmeier & Demuth, 2006; Ulmer & Johnson, 2004). Offense severity refers to the seriousness (e.g., misdemeanor, felony) of the offense while offense type refers to the type of crime committed (e.g., violent, property, or drug). The more severe the offense, the more likely the offender will be incarcerated and receive a longer sentence. Offenses characterized as a felony or as violent are more likely to result in incarceration and longer sentences (Spohn, 2009). Judges rely on the offense severity and offense type to determine how dangerous an offender is to the community.

Researchers often measure offense severity in two ways. First, researchers may utilize a continuous measure based on seriousness of the offense. Prior literature reveal



that as the offense severity score increases, the severity of the sentence increases (Spohn, 2009). Second, researchers may measure offense severity as either or felony or misdemeanor. A felony refers to a criminal offense that is punishable by at least one year of incarceration while a misdemeanor is a criminal offense punishable by one year or less (Schmalleger, 2011). Those convicted of a felony receive more severe sentences than offenders convicted of a misdemeanor. Williams (2003) observed that a defendant charged with a felony was 2.5 times more likely to be incarcerated. As for sentence length, offenders charged with felony conviction received 104 more days of incarceration.

Offense severity has also been found to interact with other factors to influence sentencing. For example, female defendants are much more likely than male defendants to be charged and convicted of less serious offenses. Moreover, they tend to be less likely to be charged or convicted for multiple offenses (Spohn & Spears, 1997). Koons-Witt and colleagues (2014) found that males and females who commit less serious offenses are treated equally; however, as the severity of the offense increases sentencing is more severe for males than for similarly situated females.

Research on the relationship between offense type and sentencing has been mixed. Oftentimes, offenses type is characterized as either a violent, property, or drug offense (Spohn, 2009). A violent offense usually refers to an offense committed against a person and includes murder, rape, robbery and aggravated assault. A property offense is an offense committed against property, such as burglary or larceny theft. Drug offenses are those that involve the trafficking, manufacturing, sale, or possession of drugs deemed illegal; however, drug offenses can also include the illegal sale, trafficking and



possession of legal drugs, such as prescription painkillers. Offenders convicted of violent crimes tend to be sentenced more severely than offenders convicted of property crimes (Spohn, 2009). Drug offenses have been found, in some cases, to be sentenced more severely than offenders convicted for other offenses (see Doerner, 2015) and, in others, drug offenses were punished less severely (see Sacks & Ackerman, 2014).

Race/ethnicity has been shown to be related to the type of offense for which one is arrested. Schlesinger (2005) observed that blacks and Hispanics were more likely to be arrested for drug offenses and whites were more likely to be arrested for property offenses. Blacks were also more likely than either whites or Hispanics to be arrested for violent offenses.

Relevant to the current study is the influence of race/ethnicity on sentencing decisions for drug offenses. Several studies have examined the effects of race/ethnicity on incarceration and sentence length decisions for drug offenders. Prior research consistently finds that black and Hispanic drug offenders are sentenced more severely than white drug offenders (Albonetti, 1997; Brennan & Spohn, 2008; 2009; Demuth & Steffensmeier, 2004; Doerner, 2015; Kramer & Steffensmeier, 1993; Sacks & Ackerman, 2014; Spohn & Sample, 2013; Steen, et al., 2005; Spohn, 2009). Kramer and Steffensmeier (1993) found that race had a more substantial impact on sentencing. Black drug offenders were one and half times more likely than whites to be incarcerated and received a prison sentence that was, on average, 2 months longer. Doerner (2015) found that being sentenced for a drug offense rather than a non-drug offense increased the likelihood of incarceration, with effects being greater for Hispanics than blacks and whites.



Regarding the effects of drug type on sentencing outcomes, Chappell and Maggard (2007) examined the role of crack and powder cocaine in influencing charging and sentencing decisions in New York City. Results revealed that about 49% of the sample was arrested on crack cocaine charges. Crack offenders were significantly more likely than powder cocaine offenders to be charged with a felony and to be sentenced to prison. Hartley and colleagues (2007) found that offenders convicted of crack cocaine offenses faced harsher sentences than offenders convicted of powder cocaine offenses. However, contradictory findings from Brennan and Spohn (2009) found that offenders convicted of either powder cocaine or methamphetamine offenses received longer sentences than offenders convicted for marijuana or other drugs (e.g., heroin). Crack cocaine was not found to be significantly related to sentence length.

The type of drug associated with drug offenses tends to vary by race and ethnicity. For example, Hartley and Miller (2010) explored the effects of media portrayal of narcotic offenders on judicial sentencing. Powder cocaine offenses comprised the majority of offenses for both whites and Hispanics while blacks represented the majority of crack cocaine cases. LaFrentz and Spohn (2006) observed that blacks were more likely to be convicted of crack cocaine offenses; however, whites and Hispanics were more likely to be convicted of methamphetamine offenses.

Race and ethnicity have also been found to interact with drug type to influence disparate sentencing decisions. The image of a dangerous drug offender was found to affect the sentence length of black offenders convicted of trafficking crack cocaine (Sample & Spohn, 2013). Blacks and Hispanics convicted of cocaine-related offenses are more likely to be charged with a felony and sentenced to prison than whites convicted of



cocaine-related offenses (Chappell & Maggard, 2007). Hartley and Miller (2010) found that ethnicity was significant in crack cases; Hispanics received average sentences that were 8 months shorter than non-Hispanics. Brennan and Spohn (2009) found that the effects of drug type were only significant for white offenders. White offenders convicted of powder cocaine or methamphetamine offenses received longer sentences than whites for offenses involving marijuana or other drugs. Bush-Baskette (2010) found that crack cocaine offenses increased the sentence length for black females, but not for white and Hispanic females. Kautt and Spohn (2002) found no significant sentencing differences based on the type of cocaine for either blacks or whites. A study conducted by McDonald and Carlson (1993) examined federal sentencing decisions for offenses involving crack and powder cocaine. For powder cocaine, blacks and Hispanics received more severe sentences than whites. For crack cocaine offenses, only blacks received more severe sentences than whites.

Criminal history. Criminal history (i.e., an offender's prior criminal record) includes prior arrests, convictions, and incarcerations; in some instances, it also includes whether the offender has an active criminal justice status (e.g., probation or parole; Spohn, 2009; Spohn & Welch, 1987; Steffensmeier, et al., 1993). An offender's criminal history assists judges in determining whether he or she will commit future offenses and whether he or she is amendable to rehabilitation. Additionally, criminal history serves as a proxy for an offender's threat or danger to society. It is typically assumed that offenders with extensive prior criminal histories are a threat to the safety of the community and cannot be reformed. Research shows that those with a previous criminal record have a greater likelihood of being arrested, convicted, and sentenced for future crimes. If



sentenced, these individuals are more likely to receive more severe sentences than their counterparts with no prior criminal record. (Brennan, 2006; Doerner, 2012; Helms & Jacobs, 2002; Spohn, 2009; Spohn & Welch, 1987; Ulmer & Johnson, 2004; Ulmer & Kramer, 1996; Williams, 2003).

Spohn and Welch (1987) conducted an extensive analyses examining the effects of various measures of prior record on sentencing for violent and non-violent offenses. They utilized ten measures to represent prior record, including number of arrests, number of felony convictions, and number of prior prison terms. Overall, prior prison terms served as the best predictor of the likelihood of imprisonment and sentence severity, followed by prior convictions, and prior arrests. Regardless of gender, a prior prison term of more than one year was the most consistent predictor of sentence severity and imprisonment for both males and females (Spohn & Welch, 1987). It was also found that, for non-violent offenses, such as drug crimes, prior arrests and prior convictions were better predictors of sentence severity and imprisonment.

Among a sample of female misdemeanants, Brennan (2006) found that having a prior conviction had both direct and indirect effects on sentencing decisions. Direct effects revealed that a prior conviction increased the likelihood of receiving a jail sentence by 17%. In terms of its indirect effects, prior convictions were associated with the inability to gain pretrial release, which increased the likelihood of incarceration (Brennan, 2006). Furthermore, females with a prior conviction were likely to have more severe charges; as a result, they were more likely to be incarcerated.

Research has also explored the interactive effects of race/ethnicity and criminal history on incarceration and sentence length (Demuth, 2003; Schlesinger, 2005; Spohn,



Gruhl, & Welch, 1981-82). Evidence suggests that blacks have the most serious prior record and whites have the least serious, with Hispanics falling in the middle. Blacks are also more likely to have active criminal status, a prior felony arrest and/or convictions, a record of either a jail or prison term, and a record of failure to appear in court for a prior offense (Demuth, 2003; Schlesinger, 2005). Because blacks are more likely to have an extensive criminal background, it is reasonable to expect blacks to be sentenced more severely. Spohn and colleagues (1981-82) examined the interactive effects of race/ethnicity, gender, and criminal history and found that black males were more likely to have prior criminal records when compared to similarly situated white males.

Pretrial release status. Two case processing factors have been found to be influential in sentencing outcomes, pretrial release and case disposition. Pretrial release status is a key decision point in the criminal justice process that has immediate effects, with offenders who are unable to make bail or denied release remaining in custody until their case is disposed (Sacks, Sainato, & Ackerman, 2015). The granting of pretrial release is based on the severity of the offense and the offender's criminal record (Reitler, Sullivan, & Frank, 2013; Williams, 2003). Having an extensive criminal history and committing serious offenses, such as felonies, increases the likelihood of being held in pretrial detention (Albonetti, Hauser, Hagan, & Nagel, 1989; Freiburger, Marcum, & Pierce, 2010; Myers, 1989; Reitler, et al., 2013; Sacks, et al., 2015; Spohn, 2009; Williams, 2003). For example, Freiburger and colleagues (2010) found that defendants with a greater number of felony charges were less likely to be released. Aside from offense severity and criminal history, extralegal factors are associated with the likelihood detention. Overall results reveal that males are more likely to be detained prior to trial



and sentencing when compared to their female counterparts (Freiburger, et al., 2010; Reitler, et al., 2013; Sacks, et al., 2015; Williams, 2003).

Additionally, research has examined the relationship between race/ethnicity and pretrial release status, consistently finding that blacks and Hispanics are more often detained prior to trial and sentencing than are whites (Albonetti, et al., 1989; Demuth, 2003; Freiburger, Marcum, & Pierce, 2010; Freiburger & Hilinski, 2010; Katz & Spohn, 1995; LaFree, 1985b, Sacks, et al., 2015; Schlesinger, 2005; Spohn, 2009; Stryker, Nagel, & Hagan, 1983; Turner & Johnson, 2005). Stryker and colleagues (1983) examined bail decisions in 10 federal districts and found that the effect of race/ethnicity no longer existed when controls relating to other defendant characteristics were added to the model, including employment status and risk posed by the defendant. Research by Albonetti and colleagues (1989) found that the interaction of race with education and income benefitted whites more than blacks. Also, it was revealed that the interaction between race and prior criminal record had a more negative effect on bail severity for blacks than for whites. LaFree (1985b) explored Hispanic-white differences in pretrial release outcomes in Tucson, Arizona and El Paso, Texas. In Tucson, Hispanics received more favorable outcomes while in El Paso, whites received more favorable outcomes.

Freiburger and colleagues (2010) examined the effect of race on pretrial decisions among black and white drug defendants and found race to be the strongest predictor of being released on recognizance (ROR), with blacks being 80% less likely to be granted ROR. One reason for this finding, however, may be that blacks were more likely to have more extensive and serious criminal backgrounds. Spohn (2009) revealed similar results, concluding that blacks had a more extensive criminal background and whites had more



community ties, such as employment and access to financial resources. Thus, racial differences in pretrial detention may be the result of racial differences in the factors judges can legally take into consideration when making pretrial decisions.

Demuth (2003) analyzed racial and ethnic differences in pretrial release decisions among whites, blacks, and Hispanics charged with violent felonies. After controlling for offense severity and criminal history, blacks and Hispanics were significantly more likely to be detained in comparison to their white counterparts. The odds of blacks and Hispanics being detained was 66% and 91% higher, respectively, than the odds for whites. More recently, Sacks and colleagues (2015) showed that both blacks and Hispanics are more likely to be detained prior to case disposition, with blacks having a greater disadvantage. In another study, Cohen and Reaves (2007) concluded that Hispanic felony defendants suffered the greater disadvantage because they were less likely to be released on bail when compared to whites and blacks.

Interactive effects of race and gender on pretrial decisions revealed that black males were the least likely to be released prior to trial and white females were the most likely to be released prior to trial (Katz & Spohn, 1995). Contrary results by Freiburger and Hilinski (2010) revealed that black females were the least likely to be detained prior to trial when compared to other groups. They suggested that black females are least likely to be detained because they are more likely to be single parents and judges are reluctant to disrupt families. Furthermore, black females possess better financial resources than black males to secure bail.

Pretrial detention can influence the final stage of criminal justice decision making

– sentencing. The assumption is that judges may perceive offenders held prior to trial as



more dangerous than those who are released. Research examining the relationship between pretrial release status and sentencing decisions has produced mixed results; however, overall findings suggest that defendants held prior to disposition receive harsher sentences (Cohen & Reaves, 2007; Goldkamp, 1980; LaFrentz & Spohn, 2006; Olsen, Lowenkamp, Cadigan, VanNostrand, & Wooldredge, 2016; Sacks & Ackerman, 2014; Tartaro & Sedelmaier, 2009; Williams, 2003). Goldkamp (1980) relied on Philadelphia data to determine the effects of pretrial status on adjudication decisions. Findings revealed that those held prior to adjudication were more likely to be convicted and sentenced and less likely to receive a diversion when compared to offenders released within 24 hours. After multivariate analyses, Goldkamp (1980) found that the relationship between pretrial status and diversion was spurious, and could be explained by a correlation of both pretrial status and diversion to such variables as offense severity and prior arrests. Additionally, there was a weak relationship between pretrial release status and conviction, with pretrial release status having no noticeable effect on the offender's conviction. For offenders convicted for their crime, the effects of pretrial release status were more pronounced for the incarceration decision than for the determination of sentence length (Goldkamp, 1980). In another study, Sacks and Ackerman (2014) examined whether pretrial detention increases sentence severity for New Jersey offenders and found that pretrial detention significantly influence sentence length, not incarceration decisions.

Williams (2003) assessed whether pretrial detention influenced incarceration decisions for felony offenders in Florida and found that pretrial detention was a strong and significant predictor of incarceration and sentence length. Pretrial detention was the



strongest predictor of the likelihood of incarceration, with those detained prior to case disposition being six times more likely to be incarcerated when compared to released defendants. Defendants detained prior to case disposition received a sentence length that was close to 110 days longer than defendants released prior to case disposition. LaFrentz and Spohn (2006) found that offenders held prior to sentencing received a sentence that was about eight months longer than offenders released prior to sentencing. More recently, Oleson and colleagues (2016), using federal sentencing data, assessed the relationship between pretrial detention and sentencing. They found that pretrial detention was a significant predictor of sentence length, with those detained receiving a harsher sentence.

The interactive effects of race/ethnicity and pretrial release status on sentencing have also been explored. Reitler and colleagues (2013) found that blacks and Hispanics had more legal factors that triggered detention eligibility than did whites, making them more likely to be detained prior to detention and increasing the severity of the sentence they received. LaFrentz and Spohn (2006) revealed that the disadvantages associated with pretrial custody were linked to both blacks and whites, but had a greater effect on blacks. Specifically, blacks held in custody received a sentence that was one and a half years longer than blacks released prior to trial, while whites held prior to trial received a sentence that was about six months longer than whites released prior to trial. They argued that pretrial status may be a source of cumulative disadvantage because blacks were more likely to be detained prior to trial and sentenced more harshly as a result of their criminal background. In contrast, Tartaro and Sedelmaier (2009) found that being held prior to trial significantly influenced sentencing decisions; however, race/ethnicity did not have conditioning effects on pretrial detention.



Based on the previous literature, pretrial release status can affect both the decision to incarcerate and the determination of sentence length, with some researchers arguing the effects are greater on the decision to incarcerate (see Goldkamp, 1980; Williams, 2003). Whether an offender is held prior to trial or prior to entering a plea significantly increases the likelihood of incarceration and the amount of time given to an offender. Some support has also shown that the influence of race/ethnicity on pretrial release status may affect later decisions relating to sentencing that may increase the severity of sentence imposed on the offender. Critics of the pretrial release process argue that it disadvantages racial and ethnic minorities and that race/ethnicity should not play a role in whether an offender is released or detained (Goldkamp, 1980; Williams, 2003). However, there is no way to guarantee that judges will not consider these factors when deciding to grant bail or release. If minorities are stereotyped as less reliable in returning to court and as more dangerous than whites, then judges may be more inclined to detain minorities, regardless of their assessment of flight risk or dangerousness.

Case disposition. Guilty pleas are the primary method of case disposition, accounting for over 90% of convictions (Johnson, 2003; Uhlman & Walker, 1979). Most cases brought before a judge are settled through a plea deal, whereby the defendant pleads guilty in exchange for a less serious charge and/or a reduced or more lenient sentence. The idea behind plea bargaining is that the defendant benefits from waiving his or her constitutional right to trial. Plea deals are usually based on an agreement between prosecutor and defense attorney or on the belief that pleading guilty is better for the defendant than going to trial. Pleading guilty also preserves the time and resources that would have been expended had the case gone to trial. Lastly, pleading guilty signifies



that a defendant is accepting responsibility for his or her actions which, in turn, translates into rehabilitative potential and leniency in sentencing. A presumed consequence of plea bargaining is that it weakens the deterrent and incapacitative effects of the law by allowing defendants to minimize their punishment (Dixon, 1995; Smith, 1986; Uhlman & Walker, 1979). However, research has shown that defendants charged with more severe offenses rarely benefit from pleading guilty because they are less likely to receive a plea deal and, when offered a plea deal, they still receive severe sentences (Albonetti, 1997; LaFree, 1985a; Uhlman & Walker, 1979).

Findings from research regarding the effects of case disposition on sentencing outcomes have been mixed. Analyses of the direct effects of case disposition have found that offenders who go to trial receive more severe punishments (Bradley-Engen, et al., 2012; Uhlman & Walker, 1979; Ulmer & Bradley, 2006; Ulmer, Eisenstein, & Johnson, 2010). Uhlman and Walker (1979), for example, explored the impact of case disposition in an effort to determine whether defendants benefit from a guilty plea. Overall findings showed that defendants who pled guilty fared better; however, such benefits may be exaggerated, since defendants who decide to go to trial may be acquitted of their charges. Additionally, the advantages of pleading guilty were not present when offense severity and type of crime were taken into account (Uhlman & Walker, 1979). Therefore, those who have committed serious offenses (e.g., violent offenses) do not receive as a large of an incentive for pleading guilty as assumed.

Ulmer and Bradley (2006) analyzed sentencing differences among serious violent offenders who either pled guilty or went to trial and found that the size of the sentencing difference between plea and trial was quite large. Those convicted by trial were more



likely than those who pled guilty to be incarcerated; offenders convicted by bench trial were 2.2 times more likely to be incarcerated while offenders convicted by jury trial were 2.7 times more likely to be incarcerated (Ulmer & Bradley, 2006). They also found that going to trial disadvantaged offenders with more serious criminal histories. The interaction between offense severity and jury trial conviction was found to significantly influence the incarceration decision, but not the determination of sentence length. In another study, Ulmer and colleagues (2010) assessed sentencing outcomes for offenders who pled guilty and those convicted by trial in United States district courts and found that offenders who go to trial receive sentences that are 45% greater than offenders who accept a plea.

Bradley-Engen and colleagues (2012) examined the effects of case disposition and how the amount of time it takes to dispose of a case influences disparities in sentencing among terrorism offenders. Offenders convicted through trial received longer sentences than those who pled guilty. Those who went to trial received a sentence that was 88% longer than sentences received by defendants who pled guilty. Time to conviction had a significant effect on the relationship between trial penalty and sentence length, such that the trial penalty decreased by 20% when accounting for time to conviction (Bradley-Engen, et al., 2012). As the time to conviction increased for offenders who went to trial, sentence length increased by roughly 6%. The time to conviction had a significant, but smaller, effect on who offenders who pled guilty. Overall, when time to conviction is taken into account, the plea-trial disparity in sentencing increases.



Other studies revealed that offenders were not penalized for going to trial and that the benefits from pleading guilty are more imagined than real (LaFree, 1985a; Smith, 1986). LaFree (1985a) analyzed the effects of case disposition on sentence severity among robbery and burglary offenders in three high control jurisdictions and three low control jurisdictions. High control jurisdictions refer to jurisdictions where prosecutors exercised great discretion in plea bargaining while low control jurisdictions are those where prosecutorial discretion is limited in regards to plea bargaining decisions (LaFree, 1985a). Although pleading guilty was not the strongest predictor of sentence severity, guilty verdicts (bench or trial) resulted in more severe sentences than guilty pleas. Additionally, it was found that offenders with more serious criminal records who accepted a plea deal received more severe sentences, refuting the claim that those with serious criminal records receiving leniency by pleading guilty (LaFree, 1985a). LaFree (1985a) argued that although offenders with serious criminal records were offered the opportunity to plead guilty, prosecutors offered offenders a sentence that slightly less severe than the expected punishment.

Smith (1986) analyzed sentencing outcomes for over 3,300 felony robbery and burglary cases in five sites to determine the effects of case disposition. Little difference was observed in sentencing decisions for those who pled guilty and those who went to trial. Additionally, plea bargaining appears to be a rational choice, whereby defendants with serious cases and extensive prior criminal records do not benefit from plea bargaining (Smith, 1986). Rather, those with less serious criminal backgrounds gain the most from pleading guilty.



The effects of pleading guilty on sentence severity have also varied by race and ethnicity. For example, Smith (1986) revealed that pleading guilty was found to slightly benefit whites when compared to blacks because plea bargaining had no effect on the latter (Smith, 1986). Ulmer and Bradley (2006) found that, for Hispanics, going to trial did not significantly impact decisions about incarceration or sentence length. For blacks, going to trial significantly influenced sentence length; however, this effect disappeared when the model controlled for the conditioning effects of court caseload. Ulmer and colleagues (2010) found that racial differences in sentence length were greater among guilty pleas than trials; therefore, trials did not increase black/white sentencing differences.

In the end, pleading guilty rather than going to trial has the potential to benefit defendants, some more than others. Those who plead guilty to their offense are more likely to be viewed by judges as remorseful and as accepting responsibility for their actions, leading to a more lenient sentence. It is believed that those who benefit the most from pleading guilty are the most serious offenders; however, research reveals that serious offenders rarely, if at all, benefit from plea bargaining. In addition, the trial penalty may be a product of the fact that those who choose to go to trial tend to commit more severe offenses and have more extensive criminal histories.

Contextual Factors

Sentencing scholars have produced a growing body of literature exploring the role of contextual factors on sentencing decisions. Although most of the variation in sentencing decisions is explained by case-level factors, case-level factors may be conditioned by characteristics of the courtroom, neighborhood, county, or state in which



the case is adjudicated (Eisenstein et al., 1988; Helms & Jacobs, 2002; Kautt, 2002; Steffensmeier, et al., 1993; Ulmer & Johnson, 2004). Contextual factors may be either proximal or distal. Proximal contextual factors relate to characteristics of courtroom actors (i.e., judges, prosecutors, and defense attorneys), including their race/ethnicity, gender, age and legal experience (Haynes, Ruback, & Cusick, 2010). For example, Johnson's (2006) analysis of the influence of judge- and county-level factors on sentencing found that older and minority judges tend to be less punitive than younger and white judges.

Distal contextual factors refer to characteristics of the jurisdiction in which the case is processed (Haynes, et al., 2010). For the purposes of the current study, only prior research on distal contextual factors will be explored. Some of the most common distal contextual factors examined are the unemployment rate, the level of political conservativism, the racial/ethnic composition of the population, and the crime rate. Studies have examined the unemployment rate because unemployment may be viewed as a threat to public order, making judges more willing to incarcerate offenders. Unemployment leads to heightened fears of rising crime and, in turn, harsher punishment (Box & Hale, 1982; Chiricos & Bales, 1991), especially for minorities who are at greater risk of unemployment and viewed as a threat to the community. Myers (1989) examined Georgia sentencing data and found that as unemployment rates increased, the likelihood of imprisonment increased and the likelihood of probation decreased. In another study, Myers and Talarico (1987) examined the indirect effect of the unemployment rate on the race-sentencing relationship and found that black offenders received harsher sentences in areas characterized by relatively high unemployment rates. In contrast, there have also



been studies finding that unemployment rate has no impact of sentencing decisions (Britt, 2000; Helms & Jacobs, 2002; Johnson, 2006; Weidner, Frase, & Pardoe, 2004).

Political values of the community can influence judicial sentencing decisions.

Conservatives rely on law-and-order appeals to attract working- and lower-class voters who are at greater risk of victimization; however, liberals have increasingly taken similar get-tough-on crime stances. Additionally, Republicans tend to allocate more resources to the criminal justice system than do Democrats. A growth in political conservativism has led to an increase in the prison population and law enforcement (Helms & Jacobs, 2002). Thus, it might be assumed that judicial decisions made in more politically conservative areas will be more punitive than judicial decisions made in more politically liberal areas. Nevertheless, the bulk of the evidence suggests that political conservativism has no significant influence on sentencing outcomes (Fearn, 2005; Helms & Jacobs, 2002; Johnson, 2006; Ulmer & Johnson, 2004). However, Helms & Costanza (2010) found that drug offenders were sentenced more severely in counties with a higher percentage of Republican voters, supporting the 1980s discourse by Republican politicians on criminal punishment for serious drug violations.

The influence of political conservatism on the relationship between offender race/ethnicity and sentencing has also been explored. Helms and Costanza (2010) found that black offenders received harsher sentences in counties with larger percentages of Republican voters. Furthermore, Helms and Jacobs (2002) found that interaction between race and political conservativism increased sentence length for black offenders who were sentenced in jurisdictions where the percentage of Republican votes was greater. Black



offenders received sentences that were roughly three months longer in counties where the percentage of Republican voters increased from 40% to 60%.

The racial composition of the population has also been found to influence sentencing decisions. It has been argued that areas with a higher population of minorities (i.e., blacks, Hispanics, or both) are likely to punish minorities more severely than whites because minorities are viewed as a threat by whites to political and economic resources. A product of this perceived threat is stereotypical images of racial/ethnic minorities as criminal and the introduction of criminal policies to reduce the threat. Due to negative perceptions of minorities as more dangerous, violent, and crime prone than whites, it may be assumed that minorities are the cause increased levels of crime are linked to larger populations of blacks or Hispanics, which poses a threat to the community. Therefore, sentencing may be used as an instrument to not only eliminate this threat, but to also maintain power over limited political and economic resources (Blalock, 1967; Bobo & Johnson, 1996; Feldmeyer & Ulmer, 2011; Helms & Jacobs, 2002; Myers & Talarico, 1986a).

Previous literature exploring the effects of racial or ethnic composition on individual sentencing decisions has produced mixed results. Some studies have concluded that the percentage of minorities in an area influences sentencing (Bridges & Crutchfield, 1988; Britt, 2000; Johnson, 2006; Myers & Talarico, 1986a, 1987; Ulmer & Bradley, 2006; Ulmer & Johnson, 2004). Other studies have found that racial composition has no effect on sentencing decisions (Fearn, 2005; Helms & Jacobs, 2002; Kautt, 2002; Steffensmeier, et al., 1993; Ulmer, 1997; Weidner, et al., 2004). Britt (2000) found that the proportion of the population that is black has a significant, positive



effect on the incarceration decision, with all offenders at a higher risk of incarceration in counties with a larger black population. However, the proportion black had a significant, negative effect on sentence length, with those sentenced in counties with larger black populations receiving shorter sentences.

Johnson (2006) and Ulmer and Johnson (2006) observed that counties with larger populations of Hispanics sentenced offenders to longer incarceration terms; however, the percentage of the population that was Hispanic had no effect on the incarceration decision. In contrast, Myers and Talarico (1986a) found that in counties with a relatively large black population, offenders received shorter sentences. This was found to be true for both blacks and whites. More recently, Helms & Costanza (2010) found that black offenders received more lenient punishments in areas with larger percentages of blacks, suggesting that increased interactions with blacks reduced fear and garnered sympathy for them. Helms and Jacobs (2002) found that the percentage of blacks in a county's population had no significant effect on sentence length.

Racial composition has been shown to have indirect or joint effects on the relationship between race/ethnicity and sentencing such that the percentages of racial and ethnic minorities impact sentence severity for blacks and Hispanics. Ulmer and Johnson (2004) found that the relationship between minority status and sentence length varied by the percent minority in the county. Being black had a larger effect on sentence length in counties with a larger percentage of blacks, with black offenders receiving longer sentences. Similar results were found for Hispanics. Myers and Talarico (1986b) concluded that the size of the black population had no effect on sentence severity for blacks; however, it increased sentence severity for whites. More recently, Feldmeyer and



Ulmer (2011) found that sentence length for blacks was not conditioned by the black population; however, Hispanics received longer sentences than whites in districts with smaller Hispanic populations and shorter sentences in districts with larger Hispanic populations. These findings suggest that Hispanics are perceived as less of a threat when they make a larger percentage (more than 27%) of a district's population. In contrast, Britt (2000) found that proportion black had no significant effects on the relationship between race and sentencing. Racial composition had no effect on the sentence severity for blacks. Helms and Constanza (2010) found that sentence severity was reduced for black offenders sentenced in communities with a large black population, arguing that increased intra-racial exchanges reduce general fear of blacks.

Research examining the effects of local crime rates on sentencing decisions has produced mixed results (Britt, 2000; Fearn, 2005; Helms & Costanza, 2010; Helms & Jacobs, 2002; Myers & Talarico, 1986a, 1986b; Omori, 2016; Ulmer & Bradley, 2006; Ulmer & Johnson, 2004; Ulmer & Kramer, 1996). High rates of violent crime increase media coverage and trigger public anxiety and fear. Public fear then leads to political demands for swift and certain punishment (Helms & Costanza, 2010; Helm & Jacobs, 2002). Fearn (2005) revealed that offenders sentenced in counties with higher violent crime rates received harsher punishments. More recently, however, Omori (2016) found that violent crime rates had no significant effect on sentence length.

Studies have also revealed that violent crimes rates interact with offender race to influence sentencing decisions. For example, Britt (2000) observed that violent crime rates influenced the relationship between race and sentence length, finding that black offenders received longer sentences in counties with higher violent crime rates.



However, violent crime rates had no significant effect on the relationship between race/ethnicity and the decision to incarcerate.

Summary

In sum, the literature on sentencing has demonstrated great advances in understanding sentencing disparities. Sentencing research emerged as an important topic because of the development of sentencing reforms in the 1980s and 1990s. The goal of sentencing reform was to reduce or eliminate unwarranted disparity in sentencing (Mauer & King, 2007; United States Sentencing Commission, 2015a). As a result, researchers have made great advances in identifying extralegal, legal, and contextual factors that contribute differences in sentencing.

When it comes to extralegal factors, the sentencing literature shows that there are relatively small racial and ethnic differences in sentences for blacks, whites, and Hispanic offenders. Black and Hispanic offenders, all else being equal, are more likely to be incarcerated than white offenders (Albonetti, 1997; Kramer & Steffensmeier, 1993; McDonald & Carlson, 1993). However, when it comes to the determination of sentence length, findings are less conclusive, with some studies finding that black and Hispanic offenders receive either shorter or longer sentences than whites and others finding no racial/ethnic differences in sentence length (Albonetti, 1997; Brennan & Spohn, 2009; Britt, 2000 Feldmeyer & Ulmer, 2011; Kramer & Steffensmeier, 1993; Miethe & Moore, 1985; Myers, 1989; Steffensmeier, et al., 1998).

Research on the relationship between gender and sentencing has been more consistent, with male offenders being more likely to be incarcerated and receive longer sentences than similarly situated female offenders. Research on the joint effects of



race/ethnicity and gender has been more mixed. Individual studies found that race/ethnicity are more likely to affect sentencing outcomes for male offenders than female offenders. Black and Hispanic male offenders are more likely to be incarcerated and receive longer sentences than white male offenders (Brennan & Spohn, 2009; Crew, 1991; Doerner & Demuth, 2010; Steffensmeier & Demuth, 2006). Additionally, black and Hispanic male offenders received more severe sentences than black and Hispanic female offenders. The effects of race/ethnicity on gender in sentencing decisions are less consistent for female offenders.

Age and its effects on sentencing decisions have received limited attention, but findings reveal that age has a curvilinear effect on sentencing, with younger and older offenders receiving sentences that were less severe than the sentences received by offenders in the middle of the age distribution (Blower, 2015; Steffensmeier, et al., 1995; 1998; Steffensmeier & Motivans, 2000; Wu & Spohn, 2009). The joint effects of race/ethnicity, gender, and age reveal that young black and Hispanic males are more likely than young white males to be incarcerated and to receive longer sentences (Steffensmeier, et al., 1998; Doerner & Demuth, 2010).

Sentencing research consistently finds that legal factors, such as offense severity and criminal history, are the strongest predictors of the likelihood of incarceration and determination of sentence length. Judges rely heavily on these two factors in their sentencing decisions for offenders. Most studies find that those with lengthy criminal histories and sentenced for serious offenses are more likely to be incarcerated and receive longer sentences (Albonetti, 1997; Brennan, 2006; Spohn, 2009). However, the effects of race/ethnicity on these two factors in sentencing decisions can exacerbate outcomes, with



black and Hispanic offenders being disadvantaged (Demuth, 2003; Schlesinger, 2005; Spohn, 2009; Spohn, et al., 1981-82).

Other legal factors have been examined to determine their effects on sentencing outcomes. Research on offense type and sentencing decisions has been mixed, with some studies finding that violent offenders are sentenced more severely while others find that drug offenders are sentenced more severely (Doerner, 2012, 2015; Sacks & Ackerman, 2014; Spohn, 2009; Spohn & Welch, 1987; Ulmer & Kramer, 1996). The effect of race/ethnicity on these factors' influences on sentencing outcomes also varies, disadvantaging blacks and Hispanics (Demuth, 2003; Schlesinger, 2005; Spohn, et al., 1981-82). More specific to the current study, black and Hispanic drug offenders receive more severe sentences than white drug offenders (Albonetti, 1997; Doerner, 2015; Spohn & Sample; Steen, et al., 2005; Spohn, 2009). The research on the relationship between drug type and sentencing decisions has been mixed, with crack cocaine offenses have either a positive or no significant effect on sentence severity. The joint effects of race/ethnicity and drug type reveal that black drug offenders are more likely to be sentenced for crack cocaine offenses while white and Hispanic drug offenders are more likely to be sentenced for powder cocaine and methamphetamine offenses (Brennan & Spohn, 2009; Bush-Baskette, 2010; Chappell & Maggard, 2007; Hartley & Miller, 2010; McDonald & Carlson, 1993).

Pretrial release status and case disposition are two case processing factors that impact sentencing decisions. Offenders with extensive criminal histories and who commit more serious offenses are less likely to be released either on their own recognizance or through bail or bond (Albonetti, et al., 1989; Reitler, et al., 2013; Sacks, et al., 2015).



Research on the relationship between pretrial release status and sentencing has been mixed, with overall results revealing that offenders who are denied release prior to trial or sentencing received more severe sentences (Cohen & Reaves, 2007; LaFrentz & Spohn, 2006; Olsen, et al., 2016). The joint effects of race/ethnicity and pretrial release status on sentencing decisions reveal that black and Hispanic offenders are disadvantaged by both criminal history and offense severity, making them more likely than whites to be detained and increased sentence severity for black and Hispanic offenders (LaFrentz & Spohn, 2006; Reitler, et al., 2013; Tartaro & Sedelmaier, 2009).

The manner in which a case is disposed also influences sentencing outcomes. Most cases are settled through a plea of guilty. Research revealed that offenders benefit from pleading guilty, receiving a more lenient sentence than offenders who opt to go to trial (Bradley-Engen, et al., 2012; Ulmer & Bradley, Ulmer, et al., 2010). However, these advantages do not exist for offenders who have committed serious crimes and those who have extensive criminal histories. The effects of pleading guilty on sentencing decisions have been found to vary by race/ethnicity, with whites slightly benefiting from pleading guilty. Pleading guilty had no significant effect on sentence severity for blacks and Hispanics (Smith, 1986; Ulmer & Bradley, 2006).

Although they play a limited role in sentencing decisions, research is increasingly exploring the influence on contextual factors on incarceration decision and sentence length. Some of the commonly analyzed contextual factors include unemployment rate, racial and ethnic composition, political conservatism, and crime rate. When it comes to unemployment, existing research has been inconclusive on the effects of unemployment rate on sentencing decisions. Some studies find that increases in unemployment result in



more severe sentences (Box & Hale, 1982; Chiricos & Bales, 1991; Myers, 1989) while others find that unemployment has no effect on sentencing decisions (Britt, 2000; Helms & Jacobs, 2002; Johnson, 2006; Weidner, et al., 2004).

As for political conservatism and its effects on sentencing decisions, the majority of the research reveals that political conservativism has no direct influence on sentencing decisions (Fearn, 2005; Helms & Jacobs, 2002; Johnson, 2006; Ulmer & Johnson, 2004); however, the effects of political conservativism have been found to influence the race and sentencing relationship, with black offenders receiving severe sentences in areas with a larger percentage of Republican voters (Helms & Costanza, 2010; Helms & Jacobs, 2002).

The literature on the effects of racial composition on sentencing decisions has also been mixed. Some studies conclude that the percentage of racial and ethnic minorities in an area influences judicial sentencing (Bridges & Crutchfield, 1988; Britt, 2000; Johnson, 2006; Myers & Talarico, 1986a, 1987; Ulmer & Bradley, 2006; Ulmer & Johnson, 2004) while others find no significant relationship between racial composition and sentencing decisions (Fearn, 2005; Helms & Jacobs, 2002; Kautt, 2002; Steffensmeier, et al., 1993; Ulmer, 1997; Weidner, et al., 2004). Additionally, racial composition has been found to influence the relationship between race/ethnicity and sentencing, with increases in the percentages of blacks and Hispanics in the population increasing the severity of sentences imposed on black and Hispanic offenders (Feldmeyer & Ulmer, 2011; Ulmer & Johnson, 2004).



CHAPTER III

THEORETICAL FRAMEWORK

The fear of losing resources (economic, political, or social) serves as a key component in the hostility by whites toward racial and ethnic minorities. The following theoretical framework explores the racial/ethnic threat perspective, which argues that relative increases in minority populations lead dominant groups to fear competition for economic, political and social resources. This fear, in turn, leads dominant groups to rely on both informal (i.e., cultural practices) and formal (i.e., the criminal justice system) mechanisms to reduce or prevent the perceived threat (Blalock, 1957, 1967; Blumer, 1958; Dollar, 2014; Turk, 1976). The discussion begins by describing Bonilla-Silva's (1997) concept of racialized social systems which suggests that race structures all aspects of society, including processes and outcomes related to the criminal justice system. Next, I describe Blalock's (1967) power threat perspective, which outlines the perceived political, economic, and social competition posed by increases in the racial/ethnic population. Third, I discuss how research focused explicitly on the criminal justice system incorporates theories of racial/ethnic threat and describe how both informal and formal social control mechanisms have been implemented to reduce the perceived threat of increasing black and Hispanic populations, focusing specifically on traffic stops, arrests, and sentencing. Finally, I provide an integrative approach that outlines the perspective that the criminal justice system is a racialized social structure within the United States in which incarceration is utilized as a form of racialized social control.



Racialized Social Systems

Bonilla-Silva (1997) asserts that the social construction of race, in the United States and globally, has created a racialized social system. He states that "when race emerged in human history, it formed a racial structure (a racialized social system) that awarded systemic privileges to Europeans (the peoples who became 'white') over non-Europeans (the peoples who became 'non-white')" (p.8-9). Racialized social systems are societies in which economic, political, and social resources are allocated along racial lines. A system becomes racialized through the definition of race whereby race becomes socially determined categories of identity and group association (Bonilla-Silva, 1997, 2014/2018). It is through social construction of race that societies ascribe meaning to race in the larger racialized social system. This does not mean that the racialized social system is independent of the actions of racialized actors. Rather, it signifies that relations between racial groups have become institutionalized, affecting both social institutions and the social life of individual members of racial groups (Bonilla-Silva, 1997, 2014/2018; also see Omi & Winant, 1994). Social structures in the United States become racialized and the social relations and practices in such societies are based on racial differences developed at all levels (Bonilla-Silva, 1997, 2014/2018). According to Bonilla-Silva (2018), "racial structures exists because they benefit members of the dominant race" (p. 9). Within racialized social systems, the dominant group within the racial hierarchy are at an advantage in every domain in the social structure. Although mechanisms used to keep others in a subordinate position change over time, one thing is clear: the life chances, power, and representation of the dominant group are far greater than those of the subordinate group (Blalock, 1967; Blumer, 1958; Bonilla-Silva, 1997, 2014/2018).

Over time, the social construction of race, or racialization, becomes independent of the system and is reproduced in the racial ideology and racial practices of a society. Racial ideology

is "the racially based frameworks used by actors to explain and justify (dominant race) or challenge (subordinate race or races) the racial status quo" (Bonilla-Silva, 2018, p. 9). Racialized ideology and practices reproduce themselves and are passed from generation to generation (Bobo & Hutchings, 1996; Bonilla-Silva, 1997, 2014/2018; Omi & Winant, 1994). Once they are reproduced, there is no longer a need for overt and blatant racialized ideology and practices; rather, racialized ideology and practices become institutionalized whereby racism, prejudice, discrimination, and oppression become enmeshed the policies and institutions in the United States. Also, they no longer require the conscious efforts of individual actors to produce racial consequences (e.g., discrimination). As long as the United States remains a racial structure, disproportionate racial outcomes will continue to be understood as "natural," "expected," and "taken-for-granted," as this is the power of the racial ideologies that hold up this system (Bonilla-Silva, 1997, 2014/2018). Two models associated with racialized social systems that add a comprehensive understanding of racialization in the criminal justice system are Blalock's (1967) power threat model and the racial/ethnic perspective. These models will be discussed below.

Blalock's Power Threat Model

Blalock's (1957, 1967) power threat model extends the work of Blumer's (1958) group position model, asserting that racial prejudice is the product of a collective process in which racial/ethnic groups conceive themselves in relation to other racial/ethnic groups. This is often done through group identification in which individuals create an image or concept of one's own racial/ethnic group that differentiates it from other racial/ethnic groups (Blumer, 1958). Blalock (1957, 1967) argued that dominant groups are threatened by increases in the number of subordinate groups, which increases group conflict and leads dominant groups to rely on



mechanisms to reduce both the threat and advancement of subordinate groups. Dominant groups are those who maintain power over the economic, political, and social resources in society while subordinate groups are those with limited societal resources (Blalock, 1957, 1967; Blumer, 1958). Dominant groups are threatened by increases in the number of subordinate groups because this increase represents competition for the limited resources. The dominant group seeks to preserve their position of power and any conflict with (or threat posed by) the subordinate group creates disorder in the current social order.

Blalock (1967) developed four propositions to support his perspective: (1) economic factors, (2) competition, (3) power, and (4) minority composition. Economic and status factors are likely to be determinants of minority discrimination if two ideas hold. First, there must exist a relatively small number of means to achieve economic and status goals. Second, when economic power is threatened, discrimination and associated behaviors can prove to be instrumental in maintaining economic power and status. Individuals who are least able to achieve economic power and status through non-discriminatory means will be more likely to resort to discrimination to achieve such goals (Blalock, 1967; also see Reiman & Leighton, 2012).

Competition refers to the "idea that two or more individuals are striving for the same scare objectives, so that the success of one implies a reduced probability that other will also attain their goals" (Blalock, 1967, p. 73). Blalock (1967) goes on to examine intergroup competition and expects the degree of intergroup competition to be high when (1) there is a greater degree of competition overall and (2) competitors believe and act as if a coalition has been formed, where rewards are allocated to those who are successful. Competition can be economic, political, and social (Blalock, 1967).



Economic competition refers to the struggle for economic achievement, including employment opportunities, between dominant and subordinate groups. When opportunities for economic achievement are limited, economic power is evidenced by higher unemployment rates in general and for certain groups (i.e., the poor and racial/ethnic minorities). Political competition refers to the struggle between dominant and subordinate groups for the allocation of resources and power. It is represented by the political composition of an area and how political affiliation affects policy. Conservatives are more likely to support policies and punishment that tend to be more punitive (Helms & Jacobs, 2002; Ulmer & Johnson, 2004) Social competition can occur through increases in the percentage of subordinate groups, such as racial/ethnic racial groups. Racial/ethnic groups, particularly blacks and Hispanics, are marginalized groups with limited resources and political power. Additionally, when their percentage in society increases, they may have a greater political presence. Greater political presence has the potential to increase the life chances of those who were once marginalized (Alexander, 2012; Blalock, 1957, 1967; Reiman & Leighton, 2012; Ulmer & Johnson, 2004).

In his discussion of power in relation to minority group relations, Blalock (1967) does not define power in terms of motives or goals; instead, he defines power as "the actual overcoming of resistance in a standard period of time" (p. 110). He examined how the availability of resources (or the actual sources of power or the ability to exercise power) to a particular individual or group aids in the amount of power possessed by that individual or group. Those who have greater access to resources are those who hold the greatest power. Blalock (1967) identified two types of resources associated with power, competitive resources and pressure resources. Competitive resources are those resources possessed by the dominant group that the subordinate group wants to possess. Oftentimes, these resources belong more to the individual



than to the group. Pressure resources are those that involve the power to punish and are more likely to be applied by the group as a whole (Blalock, 1967). For example, when the dominant group feels that their access to scarce resources is threatened, they create mechanisms, such as law and policy, to reduce the threat posed by the subordinate group. More specifically, the criminal justice system serves as a pressure resource that dominant groups utilize when they perceive their power or position to be threatened by subordinate groups (i.e., the poor and racial/ethnic minorities).

The final proposition, minority composition, explores the relationship between discrimination and the relative size of racial and ethnic groups. Under this proposition, there are three general types of discrimination that may arise from the perceived threat posed by racial and ethnic minorities, (1) political discrimination, (2) economic discrimination, and (3) symbolic discrimination (Blalock, 1967; Dollar, 2014). He suggests that an increase in the relative size of the racial/ethnic minority population could result in the use of any of the types of discrimination, individually or collectively. Political discrimination occurs when the dominant racial group feels that their political power is threatened as the size of minority population increases (Blalock, 1967). Research reveals that increases in the minority population increases political involvement among racial and ethnic minorities in which they serve various political roles (Parker, Stults, & Rice, 2005). An example of political discrimination is the restriction of minority group's right to vote. During slavery, blacks did not have the right vote because they were considered to be property rather than people. After slavery, blacks were still the denied the right to vote and, when granted the right, mechanisms were put into place (e.g., tests to determine voter eligibility) that made it difficult for blacks to obtain the right vote. During the Post-Civil Rights era, a new form of voting restriction has emerged, felony disenfranchisement. Felony disenfranchisement refers



to the loss of voting rights due a felony conviction. Data show that blacks are overrepresented in those who have become disenfranchised due to felony convictions (Alexander, 2012; Burris-Kitchen & Burris, 2011; Clear, 2007; Tonry, 2011).

Economic discrimination results from the dominant racial group viewing racial and ethnic minorities as a threat to economic resources, including job availability, stability, and wages (Blalock, 1967; Dollar, 2014; Parker, et al., 2005). In other words, as blacks and Hispanics compete for jobs and economic resources with whites, they increasingly become a threat to the economic status and position of whites. In reaction to such perceived threats, the dominant racial group may create obstacles that make it difficult for racial and ethnic minorities to obtain certain positions. One such obstacle is the criminal record, which makes it increasingly difficult for individuals to obtain suitable employment. Blacks and Hispanics are overrepresented among those with a criminal record (Alexander, 2012; Pager, 2003).

Discrimination resulting from symbolic segregation serves to draw a line between the two groups. Symbolic segregation refers to the process of dividing racial/ethnic groups in physical and symbolic ways that reinforce social arrangements between racial/ethnic groups. In some cases, this line of division may be overt and clear (Blalock, 1967). Such an example includes Jim Crow laws that criminalized certain actions committed by blacks during the Pre-Civil Rights era, including legally separate water foundations and restaurants (Takaki, 2008; Burris-Kitchen & Burris, 2011). Although such laws had no economic or political consequences, they have symbolic value for whites as a way to maintain their dominant position within the racial hierarchy. Blalock (1967) argues that a possible fourth type of discrimination, known as symbolic forms of violence, may exist. An example of a symbolic form of violence is the lynching of blacks Pre-Civil Rights. Lynching, serving as mechanism of informal racialized



social control, was used by whites against blacks to instill fear and acted as a way to keep blacks in a subordinate position (Burris-Kitchens & Burris, 2011; Davenport, Soule, & Armstrong, 2011; Takaki, 2008; Wacquant, 2001). In other cases, the line of division may be more subtle and less clear. An example of a less overt form of symbolic segregation would be the crack-powder cocaine sentencing disparity, which warrants severe punishments for smaller amounts of crack cocaine, a drug most likely to be used by blacks. The following section discusses the emergence of racial/ethnic threat perspective and related criminal justice research.

Racial/Ethnic Threat Perspective

Racial/ethnic threat perspective draws on Blalock's (1967) social component of his power threat model and its emergence can be linked to racialized social systems and race relations in the United States. It is Blalock's fourth proposition, minority composition, that guides the racial/ethnic threat perspective. Racial/ethnic threat perspective has been one of the most widely used perspective to explain racial disparity in criminal justice outcomes (Dollar, 2014). Racial/ethnic threat perspective proposes that racialization occurs when whites use their disproportionate power and resources to disadvantage racial and ethnic minority groups and to implement state control over minorities when there is an increase in the minority population (Blalock, 1957, 1967; Bobo & Hutchings, 1996; Davenport, et al., 2011; Dollar, 2014; Feldmeyer & Ulmer, 2011; Rosenstein, 2008; Ulmer & Johnson, 2004). In other words, any relationship between the size of the minority population and the amount of social control experienced by racial and ethnic minorities is a result of the dominant racial group fearing competition for (and the potential loss of) limited resources.

Under the racial/ethnic threat perspective, majority groups refer to groups that both possess most of the resources in a given area and make up a larger percent of the population in



that area while minority groups refer to those who not only represent a smaller percent of the population, but also have fewer resources. Majority groups are threatened by increases in minority populations because the number of minorities competing for limited economic, political and social resources increases (Blalock, 1957, 1967; Davenport, et al., 2011; Rosenstein, 2008; Ulmer & Johnson, 2004). There is no specific percentage that represents a threat, but research shows that areas with at least 25% minority are more likely to perceive a threat from racial and ethnic groups (Caravelis, Chiricos, & Bles, 2011; Feldmeyer & Ulmer, 2011; Liska & Chamlin, 1984; Wang & Mears, 2010). This perceived threat, in turn, leads the majority group to rely on informal and formal mechanisms of social control to reduce the threat.

Both informal and formal social control have been used as tactics for maintaining the current population of minority groups and the resources availability to those groups. Social control refers to mechanisms used to regulate individual and group behavior, with informal social controls being enforced through cultural practices and norms (e.g., slavery and overt racism) and formal social controls enforced through the government's use of rules and regulations (e.g., institutional racism and the criminal justice system) (Alexander, 2012; Bobo & Hutchings, 1996; Bobo & Thompson, 2010; Bonilla-Silva, 1997; Davenport, et al., 2011; Wacquant, 2001).

Formal social control refers to mechanisms, or practices, enforced by the government to prevent some form of deviance (i.e., drug use) within a society and to maintain social order in that society (Davenport, et al., 2011). Formal social control becomes racialized when the practices associated with social control disproportionately disadvantage racial/ethnic minorities (Alexander, 2012; Bobo & Thompson, 2010; Wacquant, 2001). A variation of formal social control used to keep blacks in a subordinate position is the use of institutional racism.



Institutional racism refers to a system of inequality based on race/ethnicity. Examples of institutional racism include Black codes and Jim Crow laws that were used as a means of restricting the rights and resources of blacks after they were emancipated from slavery (Alexander, 2012; Bobo, Kluegel, & Smith, 1997; Burris-Kitchens & Burris, 2011; Takaki, 2008; Wacquant, 2001).

Criminal justice policies and practices have served (and continue to serve) as a formal social control for all individuals within society; however, this system has disadvantaged blacks and Hispanics at great numbers (Alexander, 2012; Bobo & Hutchings, 1996; Bobo & Thompson, 2010; Reiman & Leighton, 2012; Tonry, 2011; Wacquant, 2001). In contemporary society, laws explicitly outlining certain acts as criminal for blacks have been eliminated. Rather, policies today rely on "code words" or on laws that set more severe punishments for offenses more likely to be committed by blacks and Hispanics, including violent crimes and certain drug offenses (Alexander, 2012; Bobo & Thompson, 2010; Wacquant, 2001). The War on Drugs of the late 1980s is an example of this shift in which policies were established that set mandatory minimum punishments for small amounts of crack cocaine, a drug commonly associated with blacks and Hispanics. Scholars have described the development of such policies as mechanisms of institutionalized racism (Alexander, 2012; Davenport, Soule, & Armstrong, 2011; Feldmeyer & Ulmer, 2011; Tonry, 2011).

Several studies have explored the influence of increases in the racial/ethnic populations on various stages of the criminal justice system. Specifically, the impact of racial and ethnic composition on disparate traffic stops (Novack & Chamlin, 2012; Petrocelli, Piquero, & Smith, 2003; Roh & Robinson, 2009), differences in arrest rates (Eitle & Monahan, 2009; Kane, Gustafson, & Bruell, 2013; Liska & Chamlin, 1984; Liska, Chamlin, & Reed, 1985; Parker &



Maggard, 2005; Parker, et al., 2005; Stolzenberg, D'Alessio, & Eitle, 2004), and more severe sentences for blacks and Hispanics (Caravelis, Chiricos, & Bales, 2011; Feldmeyer & Ulmer, 2011; Feldmeyer, Warren, Siennick, & Neptune, 2014; Wang & Mears, 2010a, 2010b, 2015; Ulmer & Johnson, 2004) has been explored. Results from these various studies have been mixed, depending on the component of the criminal justice system.

The initial contact with the criminal justice system can begin with a traffic stop; however, research has been limited on the effects of racial/ethnic composition on the likelihood of being stopped. Roh and Robinson (2009) found that the likelihood of being stopped was greater in areas with a greater percentage of blacks; however, the percentage of Hispanics had no significant effect on the likelihood of being stopped. Scholars have simultaneously examined the effects of racial/ethnic composition on both the likelihood of being stopped and the likelihood of being searched. Novak and Chamlin (2012) found that higher proportions of blacks are significantly related to total search rates, but not total stop rates. As the proportion of blacks increased in a neighborhood, the total search rate increased. Additionally, they explored race-specific stop and search rates and found that increases in the proportion of blacks in a neighborhood increased the likelihood of being stopped and searched for whites, but not blacks (Novak & Chamlin, 2012). These findings suggest that whites who are stopped and searched in such areas are considered to be out of place by police officers (Novak & Chamlin, 2012; also see Petrocelli, et al., 2003).

The literature on the relationship between racial/ethnic composition and arrest rates has also been mixed. There has been some support for the positive effect of increases in the black and Hispanic populations on total arrest rates (Liska & Chamlin, 1984; Liska, et al., 1985) and race-specific arrests in historically white areas (Kane, et al., 2013). Kane and colleagues (2013)



examined whether increases in black and Hispanic populations influenced race-specific misdemeanor rates, specifically in areas that were characterized as historically white. Results found that increases in the black population resulted in increases in arrest rates for black misdemeanants and that these increases were only evident in areas characterized as historically white. Additionally, increases in the Hispanic population increased the likelihood of arrest for Hispanic misdemeanants, regardless of whether the area was historically white or not (Kane, et al., 2013).

Contrary to previously mentioned findings, research on race-specific arrest rates, has revealed that the effects of racial/ethnic composition are negative, suggesting that increases in the racial/ethnic minority populations serve as a buffer against racialized social control (Eitle & Monahan, 2009; Liska & Chamlin, 1984; Parker & Maggard, 2005; Parker, et al., 2005; Petrocelli, et al., 2003; Stolzenberg, et al., 2004). For example, Parker and Maggard (2005) examined the effects of racial/ethnic composition on drug arrests for 168 U.S. cities and found that an increase in the black population decreased black drug arrests over time. Increases in the black population had no significant effect on white drug arrests and percentage Hispanic had no significant effect on black and white drug arrests. Contrary to these findings, Parker and colleagues (2005) found that percentage Hispanic had a negative effect on black arrest rates, but no effect on white arrest rates.

Research on the effects of racial and ethnic composition on sentencing decisions has been more conclusive, increases in racial and ethnic minorities increase sentence severity (Feldmeyer, Warren, Siennick, & Neptune, 2014; Feldmeyer & Ulmer, 2011; Ulmer & Johnson, 2004; Wang & Mears, 2010a, 2010b, 2015). Wang and Mears (2010a, 2010b) revealed support for the racial threat perspective, finding that increases in the minority population (both blacks and Hispanics)



were associated with more punitive sanctions (custodial vs. non-custodial). Specifically, Wang and Mears (2010b) found that, in counties experiencing a rapid growth in the black population, violent and drug offenders were more likely to receive a prison sentence than offenders sentenced for other offenders (Wang & Mears, 2010b). In contrast, Feldmeyer and Ulmer (2011) investigated whether federal sentencing decisions are influenced by the racial/ethnic composition of federal court districts and found no evidence that percentage black influenced the sentencing of black offenders. For Hispanic offenders, they found that Hispanic offenders received more severe sentences in districts with smaller percentages of Hispanics, but received less severe sentences in districts with a relative large Hispanic population (Feldmeyer & Ulmer, 2011).

More recently, Wang and Mears (2015) explored both the effects of state and county racial and ethnic composition on sentencing decisions. They found that state percent black had a significant effect on sentence length, but not on incarceration decision. Increases in the percentage of blacks in a state increased sentence length for black offenders. County percent black had no significant effect on incarceration decision or sentence length for black offenders (Wang & Mears, 2015). State percent Hispanic had a significant effect on sentence length, but not the decision to incarcerate for Hispanic offenders. Increases in the percentage of Hispanics led to a decrease in sentence length for Hispanic offenders. County percent Hispanic had no significant effect on sentencing decisions for Hispanic offenders (Wang & Mears, 2015).

Theoretical Integration

In this dissertation, I will integrate racialized social systems with racial/ethnic threat perspective. As previously stated, the United States represents a racial social system. Bonilla-Silva (1997) argues that all racialized social systems are hierarchical in nature and, whenever there is a threat (e.g., an increase in racial/ethnic minority populations) to those at the top, those



in power will rely on mechanisms of social control to maintain economic, political, and social power (also see Blalock, 1957, 1967; Black, 1976; Blumer, 1958; Turk, 1976). Evidence that the United States is structured by race, or is a racialized social system can be seen in how drug policy has been created and applied. In simple terms, the federal drug sentencing policies are racialized. For example, the Anti-Drug Abuse Acts of 1986 and 1988 established penalties for the simple possession of crack cocaine, a drug most often associated with blacks and Hispanics, that were more severe than penalties associated with powder cocaine, a drug associated with whites (Alexander, 2012; Bobo & Thompson, 2010; Reiman & Leighton, 2012; Tonry, 2011). These policies were passed based on reports that crack drug markets were more "violent" than powder cocaine drug markets. Although race/ethnicity was not explicitly addressed in the passing of these laws, media portrayals of black and Hispanic drug dealers as "more dangerous and violent" served as the catalyst for the passing of more severe penalties for crack cocaine offenses. In this sense, socially constructed ideas about race were mapped on to public policies. Or, in other words, racial ideologies, rooted in white supremacy and a history of racial domination, were mapped on to new elements of the social structure, perpetuating the hierarchical racial structure altogether.

The criminal justice system in the United States represents a racialized social structure that reworks and perpetuates racialized ideologies and practices that are formed in the larger racialized social system. One way the criminal justice system has redefined the ideals surrounding racialization is through stereotypical images of racial/ethnic minorities as "criminal, dangerous, and posing a threat to the social order." In other words, the criminal justice system has been used to maintain racialized structures of economic, political, and social hierarchies and operates in a such manner to protect the interests of the group at the top of hierarchy and to



control the behavior and actions of those at the bottom who may challenge their power (Black, 1976; Helms & Costanza, 2010; Reiman & Leighton, 2012; Turk, 1976). It can be hypothesized that racialized practices, both past and present, inherent in social structures have both direct and indirect influences on racial and ethnic differences in sentencing decisions through their influence on policy development and through their impact on the racial and ethnic composition in the community. Racialized ideologies relating to race, drugs, and crime are reflected in drug-related legal practices, including traffic stops, arrests, and sentencing (Alexander, 2014; Bobo & Thompson, 2010; Bonilla-Silva, 1997; Reiman & Leighton, 2012; Tonry, 2011; Wacquant, 2001).

The use of harsh criminal justice policies was introduced to maintain both class and racial hierarchies among whites in relation to the emergence of black political mobilization, resulting from the Civil Rights Movement (Alexander, 2012; Bobo & Hutchings, 1996; Bobo & Johnson, 2004; Bobo, Kleugel, & Smith, 1997; Bonilla-Silva, 2014; Reiman & Leighton, 2012). Research has shown that an increase in the relative size of black population has led to an increase in various forms of structural and institutional racism and an increase in the amount of resources allocated to the criminal justice system (Bobo & Hutchings, 1996; Davenport, Soule, & Armstrong, 2011; Feldmeyer & Ulmer, 2011). The criminal justice system has been an instrumental tool in controlling racial/ethnic minority groups through racialized social controls, by adopting practices that disproportionately affect racial/ethnic groups.

It is through the criminal justice system that some of the most visible forms of racialized social controls are established. Racialized social controls in the criminal justice system can take various forms, including policy and incarceration, and act in a way to disadvantage racial/ethnic minority groups, particularly blacks and Hispanics. When racial/ethnic minorities pose a threat,



particularly through their increases in the population, the dominant group relies on these racialized social controls to keep the subordinate group in its place.

Criminal justice policies and practices are forms of racialized social control that have contributed to (and reproduced) the structural patterns of racial inequality produced in the larger United States. In the end, the criminal justice system is used to reduce levels of crime and serve as a proxy to maintain control over racial/ethnic minorities. Racialized social control can also be seen in court communities and judicial decision making. Racial/ethnic effects in the criminal justice system in general, and the court communities, in particular, are reflective of macro-level characteristics of a racialized social system. Racially motivated decisions may be embedded in the normal operations of the criminal justice system, even though the behavior of actors may be race neutral and directed toward non-racial/ethnic goals. Courts and the sentencing process are racialized eve when "race-neutral" initiatives of crime control disadvantage racial/ethnic minorities (Bonilla-Silva, 1997; Ulmer & Johnson, 2004). The sentencing decisions of court communities may be based on stereotypes of racial and ethnic groups that are unconsciously embedded in courtroom actors through media portrayals of blacks and Hispanics as dangerous and the cause of increasing crime. Increases in crime are believed to be the result of increases in minority populations (Bonilla-Silva, 1997; Liska & Chamlin, 1984; Steffensmeier & Demuth, 2001; Steffensmeier, et al., 1998; Steen, et al., 2005; Ulmer & Bradley, 2006; Ulmer & Johnson, 2004).

In sum, the theoretical framework integrates the general tenets of racialized social systems, the early works of Blalock (1957, 1967), and racial/ethnic threat perspective and applies them to criminal justice system, specifically sentencing decisions. The criminal justice system represents a racialized social structure in which judicial decisions are significantly influenced by



the facts of the case presented. Additionally, judges are guided, both consciously and unconsciously, by stereotypical images of racial and ethnic minorities as criminal and dangerous. These ideas are the product of the perceived threat of racial and ethnic minorities, resulting from their increases in the population and are a part of dominant racial ideology. Racial and ethnic minorities pose both an individual and group threat when there is a population increase among these two groups. It is assumed by the dominant group that increases in racial and ethnic minorities represent competition that is economic (evidenced by lower rates of state unemployment), political (evidence by fewer Republican voters in state), and social (evidenced by increases in racial/ethnic composition). In today's society, the threat posed by blacks and Hispanics has been recast in terms of crime as a way to shield the underlying mechanisms of racial discrimination, prejudice, violence and oppression.



CHAPTER IV

DESCRIPTION OF THE CURRENT STUDY

In this study, I investigate the effects of legal and extralegal factors on sentencing decisions for federal crack and powder cocaine offenses, both before and after the Fair Sentencing Act of 2010 (hereafter FSA 2010). Specifically, I will test two sets of hypotheses. The first set of hypotheses focuses on the impact of individual- and contextual-level factors on sentencing decisions for cocaine offenses before FSA 2010. The second set of hypotheses examines the effects of legal and extralegal factors on sentencing decisions for cocaine offenses after FSA 2010.

Hypotheses

The Fair Sentencing Act (FSA) of 2010 is expected to reduce the severity of the sentences imposed on offenders convicted of federal crack cocaine offenses. The primary purpose of the FSA 2010 was to reduce the crack-powder cocaine sentencing disparity from 100:1 to 18:1. Between 2005 and 2009, the likelihood of incarceration is expected to be greater for offenders convicted of crack cocaine offenses than for offenders convicted of powder cocaine offenses; between 2011 and 2015, however, this difference in the likelihood of incarceration for offenders convicted of crack and powder cocaine offenses will be smaller. Regarding sentence length, the difference between offenders



convicted of crack and powder cocaine offenses is expected to be greater during the pre-FSA 2010 years. During the post-FSA 2010 years, the mean differences in sentence length for crack cocaine and powder cocaine offenses is expected to be smaller.

Pre-FSA (2005-2009) Hypotheses

Extralegal (i.e., offender-related) factors.

- 1. Although legally relevant factors are expected to be the strongest predictors of sentencing outcomes, extralegal factors, such as race/ethnicity, gender, and age, are also expected to influence judicial decision making.
 - 1a. It is expected that blacks and Hispanics sentenced for crack and powder cocaine offenses will receive harsher sentences than whites sentenced for crack and powder cocaine offenses. Black and Hispanic drug offenders are more likely than white drug offenders to be stereotyped as more dangerous and culpable for their offenses (Steen, et al., 2005; Helms & Jacobs, 2002; Hofer, et al., 1999; Kautt, 2002; Kramer & Ulmer, 1996; Spohn, 2009; Steffensmeier, et al., 1998). As a result, black and Hispanic offenders are more likely to be incarcerated and to receive longer sentences.
 - **1b.** Males sentenced for crack and powder cocaine offenses are expected to receive harsher sentences than females sentenced for crack and powder cocaine offenses. Males are expected receive harsher sentences than females because they are likely to be perceived as more dangerous and as more culpable for their criminal behavior (Brennan & Spohn, 2009; Doerner, 2015; Steffensmeier, et al., 1993; Steffensmeier, et al., 1998).



1c. It is expected that crack and powder cocaine offenders between the ages of 20 and 39 will receive more severe sentences than younger (19 and younger) and older (40 and older) crack and powder cocaine offenders (see Steffensmeier, et al., 1995). Prior research has shown that the relationship between age and sentencing is curvilinear. Younger offenders may be perceived as less responsible for their actions while older offenders may be viewed as being incapable of serving an incarceration term. Additionally, the incarceration of older offenders places an added strain on the correctional system due to additional costs associated with aging, including health issues and dietary restrictions. It has also been argued that older offenders are less able to serve lengthy sentences because they are more likely to be experience prison victimization (Blowers & Doerner, 2015; Koons-Witt, et al., 2014; Steffensmeier, et al., 1995, 1998).

1d. It is expected that more educated crack and powder cocaine offenders will receive a more lenient sentence than crack and powder cocaine offenders who are less educated. Previous literature exploring the relationship between educational level and sentencing revealed that offenders with less than a high school diploma were sentenced more severely (Doerner, 2015). Individuals with higher levels of education are assumed to have greater community ties, including employment; thus, judges may be reluctant to incarcerate and imprison such an offender for lengthy terms. Additionally, better educated individuals are viewed as victims of drug use, which may garner sympathy from both prosecutors and judges (Petersen & Hagan, 1984).

Legal (i.e., offense-related) factors.



- 2. Legally-relevant factors are expected to be the strongest predictors of sentencing decisions for crack and powder cocaine offenses.
 - 2a. It is expected that crack and powder cocaine offenders with higher criminal history scores will receive harsher sentences than crack and powder cocaine offenders with lower criminal history scores. Prior criminal history has been found to be one of the strongest predictors of sentencing outcomes (Spohn, et al., 1981/82; Spohn & Welch, 1987). Given that offenders with a prior criminal record are perceived to be more dangerous to society, it is expected that offenders with a higher criminal history score will be sentenced more severely.
 - **2b.** It is expected that crack and powder cocaine offenders with a higher offense severity score will receive harsher sentences than crack and powder cocaine offenders with a lower offense severity score. Offense severity is one of the two strongest predictors of sentence severity, such that it increases the likelihood of incarceration and sentence length. Additionally, sentencing guideline systems use both offense severity and criminal history in determining sentencing ranges for criminal sentence length (Spohn, 2009; Steffensmeier, et al., 1995; Ulmer & Johnson, 2004).
 - 2c. It is expected that the offense type will affect sentencing decisions. Crack and powder cocaine offenders convicted of trafficking are expected to receive more severe sentences than crack and powder cocaine offenders convicted of other drug-related offenses. The USSC (2015) considers drug trafficking as the most serious drug offense and simple possession as the least serious drug offense.



Prior research has shown that drug offenders sentenced for trafficking received harsher sentences (Crow & Kunselman, 2009; Spohn & Sample, 2013).

2d. The type of drug is expected to influence sentencing decisions, with drug offenders sentenced for crack cocaine offenses receiving more severe sentences than drug offenders sentenced for powder cocaine offenses. Prior literature has found that crack offenders are sentenced more severely than powder cocaine offenders (Chappell & Maggard, 2007; Hartley & Miller, 2010). Additionally, crack cocaine use has been associated with crime and disorder in poor, inner-city neighborhoods; therefore, judges may perceive crack cocaine offenders as more culpable and sentence them to more severe punishment.

2e. Presentence status is expected to affect sentencing decisions, with crack and powder cocaine offenders held in custody receiving harsher sentences than crack and powder cocaine offenders released on bail/bond or released on recognizance. Offenders held in custody prior to disposition are more likely to have committed more serious offenses and to have more extensive criminal histories. Judges may perceive offenders held in custody prior to disposition and/or sentencing as a danger to the community and as more culpable (Oleson, et al., 2016; Ulmer, et al., 2010).

2f. It is expected that crack and powder cocaine offenders who accept a plea of guilty will receive a more lenient sentence than crack and powder cocaine offenders who go to trial (either bench or jury). Accepting a guilty plea is viewed as advantageous to both the offender and the courtroom workgroup because pleading guilty frees up resources that may have been used if the case



went to trial. Additionally, judges may assume that those who plead guilty to the offense do so to accept responsibility for the commission of the offense (Johnson, 2003; LaFree, 1985a; Smith, 1986; Ulmer & Bradley, 2006; Ulmer, et al., 2010). Contextual-level factors.

- 3. The economic, political, and social contexts of the state are expected to affect sentencing decisions for offenders sentenced for cocaine-related offenses.
 3a. Regarding the economic context, crack and powder cocaine offenders sentenced in states with a higher unemployment rate are expected to receive more severe sentences. Unemployment has the potential to enhance public demands for harsh sentences as a way of controlling the "excess supply" of unemployed individuals and preventing their involvement in criminal behavior. It has also been suggested that the unemployed are resented by more affluent individuals (Helms & Jacobs, 2002, p. 585).
 - 3b. Regarding the political context, crack and powder cocaine offenders sentenced in states with a greater percentage of votes for the Republican presidential candidate will receive more severe sentences.
 - 3c. It is expected that crack and powder cocaine offenders sentenced in states with a Republican governor will receive more severe sentences. Republicans are more likely than Democrats to view retribution as the goal of punishment and support more laws against crime and more punitive criminal sanctions.

Republicans are also more likely than Democrats to spend funds on the criminal justice system (Helms & Jacobs, 2002).



3d. Regarding the social context, crack and powder cocaine offenders sentenced in states with a higher percentage of minorities (blacks and Hispanics) are expected to receive more severe sentences. Large minority populations may lead individuals to view blacks and/or Hispanics as a menace and to develop negative attitudes about racial and ethnic minorities as they increase in the population (Bobo & Hutchings, 1996). Increases in both the black and Hispanic population may be perceived as a threat to the political and social order of a given state; thus, punitive sanctions may be used as social control when informal social controls are deemed ineffective (Blalock, 1967; Helms & Jacobs, 2002; Fearn, 2005).

3e. Crack and powder cocaine offenders sentenced in states with higher rates of violent crime are expected to receive more severe sentences. High rates of violent crime have the potential to trigger fear among individuals, exacerbating public demands for tougher laws on crime and trigger pressure for more punitive sanctions (Helms & Jacobs, 2002; Ulmer & Bradley, 2006).

Post-FSA (2011-2015) Hypotheses

After the introduction of the FSA 2010, it is expected that the effects of race/ethnicity, drug type, and racial/ethnic composition on sentencing outcomes will change. First, it is expected that blacks and Hispanics sentenced for crack and powder offenses will receive a greater sentence than whites sentenced for crack and powder cocaine offenses. Racial/ethnicity is expected to be greater under a policy that grants increased discretion in sentencing for judges (Crow & Kunselman, 2009). Additionally, the negative stereotypes associated with both blacks and Hispanics are expected to play a

continuing role in influencing ideals of racial differences in dangerousness and culpability.

Second, it is expected that the sentencing outcomes for drug offenders convicted of crack cocaine offenses will be similar to sentencing outcomes for drug offenders sentenced for powder cocaine offenses. One of the primary goals of the FSA 2010 was to decrease the crack-cocaine disparity from 100:1 to 18:1 in an effort to reduce the sentencing disparity between the two forms of cocaine. Due to the fact that some disparity in amount exists, it is expected that sentencing decisions may be somewhat similar for drug offenders sentenced for crack and powder cocaine offenses.

Description of the Data

The data for this study are derived primarily from federal drug sentencing information from the Monitoring of the Federal Crime Sentences program by the United States Sentencing Commission (USSC) for the years 2005-2009 and 2011-2015. The USSC collects annual data on individual offenders convicted of federal crimes in the 94 districts. The study also includes contextual information from the United States Census and the Federal Bureau of Investigation's Uniform Crime Reports (UCR).

Federal sentencing data were collected by the USSC, which relied on sentencing information collected by federal district courts. Thirty days after a judgment has been rendered in a federal criminal case, the chief judge of the district is required to provide the following information: (1) the judgment and commitment, (2) a written statement detailing the reasons for the sentence, (3) the existence of any plea agreement, (4) the indictment of the case, which details the charges against the defendant, (5) the presentence report completed by a probation officer, and (6) additional information



deemed appropriate by the USSC, such as whether the offender provided assistance to authorities (Kitchens, 2010). The judgment and commitment is a document detailing all the sentencing information of a case, including the type and severity (i.e., length) of the sentence imposed, whether the offender will be placed on parole upon release, and any monetary sanctions (e.g., fines) associated with sentencing (Kitchens, 2010).

In federal cases, recommended sentences are determined by a sentencing table established by the USSC. The sentencing table is a grid whereby the vertical axis represents the final offense level, ranging from one to 43, and the horizontal axis represents the criminal history category. Each federal offense is assigned a base offense level to determine the seriousness of the offense. More serious offenses receive higher scores and adjustments can be applied based on other characteristics associated with the offense, such as the presence of a weapon. After all adjustments have been made to the base offense level, the offense is assigned a final offense level. Those axes intersect to create four sentencing zones, with Zone A representing the lowest end of the sentencing table and Zone D representing the highest end of the sentencing table (see Appendix A; Kitchens, 2010).

The sample for this study contained cases for which offenders were convicted of crack cocaine and powder cocaine offenses. Drug offenses can be prosecuted in either state or federal courts. It is up to the state and federal prosecutors to determine which court will handle the case; however, this decision varies by state. Information on federal drug offenders is sent to the USSC. Additionally, I divide the cases into two separate data sets. The first data set represents sentencing decisions for crack and cocaine offenses for the years 2005-2009 (pre-FSA 2010). The pre-FSA 2010 dataset contains 53,988



cocaine-related cases, with 48.2% of offenders convicted of crack cocaine offenses and 51.8% of offenders convicted of powder cocaine offenses. The second data set includes data for sentencing decisions for crack and powder cocaine offenses for the years 2011-2015 (post-FSA 2010). The post-FSA 2010 dataset contains 36,204 cocaine-related cases, with 37.2% of offenders convicted of crack cocaine offenses and 62.8% of offenders convicted of powder cocaine offenses. Data from 2010 is excluded from the sample because the act was signed into federal law on August 3, 2010.

The USSC data is well suited for the present study for several reasons. First, the Fair Sentencing Act of 2010 was enacted at the federal level, making USSC data the most suitable data for analyses. Second, federal sentencing guidelines established a standardized system to determine the appropriate sentence based on offense seriousness and prior criminal record; therefore, federal sentencing data is more likely than state-level sentencing data to accurately reflect the influence of these two factors on sentencing outcomes. Third, USSC data include detailed information about both legal (e.g., offense severity) and extralegal (e.g., race/ethnicity) factors relating to individual cases. Fourth, analyses of multiple years of USSC data provides a large sample of both female and Hispanic offenders, which makes the data sufficient for statistical analyses of gender and ethnicity effects, net of legally relevant factors.

Measures

Dependent Variables

Two decisions are made during the sentencing stage: the decision to incarcerate and, if incarcerated, the determination of sentence length. Thus, there are two dependent variables utilized in this study. The first dependent variable, *Incarceration*, is a



dichotomous variable coded '1' if the defendant received an incarcerative sentence and '0' otherwise (i.e., if he/she received probation or some other non-incarcerative sentence, such as fines). The second dependent variable, *Sentence Length*, is a continuous variable measuring the length of a defendant's sentence in months. This variable represents the total sentence imposed, including time served and concurrent sentences. Time served refers to the time a defendant may have spent incarcerated for the current charge before the defendant was actually sentenced. Concurrent sentences refer to sentences for two or more offenses, in which the offender serves time for the longest sentence. USSC caps sentence length and codes life sentences as 39.2 years (i.e., 470 months). Offenders who did not receive a prison sentence are coded as '0' and will be excluded from regression analyses regarding sentence length.

Independent Variables

The independent variables used in the current study include individual-level and contextual-level variables, with individual-level variables divided into offender-related and offense-related. Offender-related variables are those that describe characteristics of the individual, such as race/ethnicity, gender, and age. Offense-related variables are those that describe characteristics of the case, such as prior criminal history and offense severity. At the contextual-level, state-level variables are those describing characteristics of the economic, political, and social contexts.

Extralegal (i.e., offender-related) variables. The USSC gathers offender-related variables from the offender's Presentence Report (PSR) generated by a probation officer. I include four measures representing offender characteristics: race/ethnicity, gender, age, and educational attainment. *Race/ethnicity* includes dummy variables for non-Hispanic



whites, non-Hispanic blacks, and Hispanics, with non-Hispanic whites serving as the reference group. Offenders belonging to the "other" racial/ethnic category are deleted from the analyses due to their limited representation in drug offenses (less than 5%). *Gender* is coded '0' for females and '1' for males. *Age* is measured as the age of the offender (in years) at the time of sentencing and was generated based on the date of birth provided either in the PSR or at case submission to USSC. The measure *Age squared* is included to account for the non-linear relationship between age and sentencing decisions. Previous research shows that younger and older offenders tend to be sentenced less severely than offenders who fall in the middle of the age distribution (see Steffensmeier, et al., 1995, 1998). *Educational attainment* measures the highest level of education completed by the offender. It is a dichotomous variable, with high school diploma or greater coded as '1' and less than a high school diploma coded as '0'.

Legal (i.e., offense-related) variables. I include six legally relevant aspects of the case: criminal history, offense severity, offense type, drug type, presentence status, and case disposition. All variables come from the USSC data files. *Criminal history* measures the seriousness of an offender's prior record and represents his/her likelihood of recidivism. This is a scale which ranks the seriousness of prior criminal activity from I (least serious) to VI (most serious). Criminal history categories are based on the sentence(s) for prior conviction(s) at the local, state, and/or federal levels and on whether the offender committed the current offense while under correctional supervision (United States Sentencing Commission, 2015a). It is measured by five dummy variables, with Category I serving as the reference category. *Offense severity* measures the seriousness of



the offense and is a continuous variable that ranges from 1 to 99. The higher the score, the more severe the offense.

Offense type measures the drug offense for which an individual has been sentenced. The USSC identifies three drug-related offenses: trafficking, communication facilities, and simple possession. Offenders convicted of drug trafficking are found to have participated in either the transportation, manufacturing, sale, or importation of illegal drugs. Drug-related convictions resulting from communication facilities refer to a felony charge resulting from the offender using some form of communication (e.g., cellphone) to commit a drug offense. Simple possession, the least severe of the three offenders types, refers to offenders convicted of possessing illegal drugs. Most drug offenders sentenced at the federal-level are convicted of drug trafficking; therefore, trafficking is coded as '1' and other drug offenses (i.e., communication facilities and possession) will be coded as '0' (see United States Sentencing Commission, 2015b).

The variable *drug type* represents the drug involved in the case. For the current study, only offenders convicted of crack and powder cocaine are included, with powder cocaine coded as '1' and crack cocaine coded as '0'. *Presentence status* refers to the offender's presentence detention status and is measured by three categories: in custody, out on bail/bond, and release on recognizance (ROR). I created dummy variables for "out on bail/bond" and "ROR," with "in custody" serving as the reference category. The category "other" is excluded from the current study because this category includes individuals who are detained because a jurisdiction issued a detainer warrant, which are issued to transfer offenders from one jurisdiction to another. Reitler and colleagues



(2013) suggest that "nothing can be inferred about judicial decision-making" from offenders held on a detainer warrant (p. 349).

Case disposition is a dichotomous variable referring to the manner in which the case was resolved, with guilty plea coded as '1' and trial coded as '0.' In the United States court system, the majority of offenders accept a plea of guilt; thus, guilty plea serves as the reference category. Guilty pleas occur when prosecutors offer offenders the opportunity to admit guilty in exchange for a reduced charge or sentence. Trial includes offenders who had the facts of the case heard by either a judge or jury. These two categories were collapsed together because few offenders opted for a bench trial.

Additionally, previous research has shown that both bench and jury trials result in harsher sentences than a guilty plea (Bradley-Engen, et al., 2012; Johnson, 2003; Blowers & Doerner, 2015; Ulmer & Bradley, 2006). Offenders who pled *nolo contendere* are excluded because they accept their conviction but do not formally admit guilt. Offenders convicted by both plea and trial are also excluded because it cannot be determined for which charge(s) the offender may have entered a guilty plea or went to trial.

Contextual-level variables. Prior research has shown that contextual factors can affect sentencing decisions (Britt, 2000; Fearn, 2005; Hartley, et al., 2007; Helms & Jacobs, 2002; Kautt, 2002; Ulmer & Johnson, 2004; Wang & Mears, 2010). As previously mentioned, contextual factors refer to characteristics associated with a given area (e.g., county or state). For the current study, I include five state-level variables representing characteristics of the economic, political, and social contexts.

Unemployment rate, a measure of the economic context, comes from the United States Census Bureau's American Community Survey (ACS). The ACS is a statistical



survey conducted by the U.S. Census Bureau that regularly collects demographic information about the United States. Unemployment rate measures the proportion of unemployed individuals as a percent of the civilian labor force. This variable is taken from 3-year estimates of ACS for the years 2008 and 2012. I used the 2008 ACS variable with the 2005-2009 data and the 2012 ACS variable with the 2011-2015 data.

Percent voted Republican, a measure of the political context, comes from the United States Federal Election Commission which collects state voting data for each presidential election in the United States. Percent voted Republican measures the percentage of individuals who voted for the Republican candidate in the 2008 and 2012 presidential elections. For the 2005-2009 data, I used the results from the 2008 presidential election. For the 2011-2015 data, I used the results from the 2012 presidential election. A second measure, Republican governor, measures whether the state had a Republican governor during the 2008 and 2012 presidential elections. For the 2005-2009 data, I used the sitting governor in the 2008 presidential election year. For the 2011-2015 data, I used the sitting governor in the 2012 presidential election year.

Finally, I include three measures of the social context. The first variable, *percent black*, measures the percentage of the population that is black in a state and the second variable, *percent Hispanic*, measures the percentage of the population that is Hispanic in a state. For the 2005-2009 data, I used the 2008 3-year ACS estimates of percent black and percent Hispanic in each state. For the 2011 -2015 data, I used the 2012 3-year ACS estimates of percent black and percent Hispanic in each state. The third variable comes from the average of the 2005-2009 violent crime rates for the 2005-2009 data and the average of the 2011-2015 violent crime rates for the 2011-2015 data. The violent crime



rate was an average state crime rate for Part I offenses per 100,000 individuals reported by the UCR. Part I offenses refer to the average state crime rate per 100,000 people and includes offenses against property and persons.

Overview of Analyses

Descriptive Analyses

The descriptive analyses will proceed in two stages. First, I will describe the samples of federal crack and powder cocaine cases for the years 2005-2009 and 2011-2015. Second, I will calculate correlation matrices to summarize the strength and direction of the association between individual- and contextual-level independent variables.

Regression Analyses

The regression analyses will proceed in two stages. First, I will estimate a series of multilevel regression models to test for variations in offense characteristics, offender characteristics, and contextual factors on the two sentencing outcomes: the decision to incarcerate and the determination of sentence length. Multilevel modeling is appropriate for these analyses because data for the current study are represented at two levels. Level 1, the lowest level, consists of offender and case characteristics nested within Level 2, which consists of contextual factors for each state. Multilevel models allow for the "ability to aggregate cases by group membership and test simultaneously for individual and group effects on the dependent variable" (Britt, 2000, p. 716). These models permit researchers to estimate variation within and between units, allowing for the evaluation of variation that exists at each level of analyses. Additionally, multilevel models examine



whether factors at the higher level of analysis have an influential effect on factors at the lower level of analysis. Due to the nested nature of the data for the current study, dependency problems are likely to arise when individual cases are nested within states. Multilevel modeling accounts for the lack of independence across levels of analyses and permits more accurate estimates of the effects of predictors, at both levels, on the outcome variable (Woltman, Feldstein, Mackay, & Rocchi, 2012). Hierarchical logistic regression will be used to analyze the decision to incarcerate and hierarchical linear regression will be used to analyze the determination of sentence length.

The first set of analyses will focus on the decision to incarcerate and the determination of sentence length during the years 2005-2009, *before* the Fair Sentencing Act of 2010, and the second set of models will focus on the years 2011-2015, *after* the Fair Sentencing Act of 2010. The purpose of these models is to examine whether the effects influencing sentencing outcomes differ after the introduction of the Fair Sentencing Act. Specifically, the models will examine whether the effect of race/ethnicity is greater after the introduction of the Fair Sentencing Act of 2010. I will estimate three models both before and after the Fair Sentencing Act of 2010. For both the decision to incarcerate and the determination of sentence length, Model 1 will estimate the effects of both offense and offender characteristics, Model 2 will include only offense characteristics, and Model 3 will estimate the effects of offender, offense, and contextual characteristics on the decision to incarcerate and sentence length.

Second, I will estimate separate models for each racial/ethnic group to determine whether the effects of offense, offender, and contextual characteristics on the decision to incarcerate and the determination of sentence length differ by race/ethnicity. I will create



three separate data sets, one for non-Hispanic white drug offenders, one for non-Hispanic black drug offenders, and one for Hispanic drug offenders. I will also estimate separate models for each type of cocaine to determine whether the effects of offense, offender, and contextual characteristics on sentencing differed for crack and powder cocaine offenses. This will be done by creating separate data sets for crack and powder cocaine offenses for analyses.



CHAPTER V

RESULTS

This chapter begins by describing the sentencing data for federal crack and powder cocaine offenses for the Years 2005-2009 and 2011-2015. I then provide the results of hypothesis testing for analyses on incarceration decisions and determination of sentence length, respectively.

Description of Sentencing Data for the Years 2005-2009 and 2011-2015

Table 1 describes the 90,192 crack and powder cocaine cases sentenced in federal United States courts before and after the Fair Sentencing Act 2010. Between 2005-2009 and 2011-2015, the number of crack and powder cocaine cases declined by approximately one-third, from 53,988 cases to 36,204 cases, respectively

During the years 2005-2009, incarceration was imposed in most of the cases and the average sentence length was approximately 104 months (i.e., 8.7 years). Most offenders were black, males, and had at least a high school diploma. They also reported an average age of about 33 years. Regarding legal factors, offenders had an average criminal history score of 2.75 and an average offense severity score of 27.16. Almost all (97%) offenders were sentenced for trafficking, distributing and/or selling cocaine. Over 50% of offenders were sentenced for powder cocaine offenses. The majority of offenders remained in custody (82%) and pled guilty (95%) prior to sentencing.



Regarding contextual factors, the average state unemployment rate was approximately 6%, with the lowest being 3.3% and the highest being 9.5%. The average percentage of blacks in a state was roughly 14% and the average percentage of Hispanics in a state was roughly 14%. The average percentage of Republican voters in a state during the 2008 presidential election was 47% and roughly 44% of states had a Republican governor during the 2008 presidential election. The average violent crime rate for a state during the years 2005-2009 was 483 incidents per 100,000 individuals.

Similar to the years 2005-2009, most (97%) offenders were sentenced to prison in 2011-2015. The average sentence length decreased from approximately 104 months in 2005-2009 to approximately 86 months (i.e., 7.2 years) in 2011-2015. There were slightly fewer white and black offenders in 2011-2015; however, the percentage of Hispanic offenders increased from 32% in 2005-2009 to 38% in 2011-2015. The average age increased from approximately 33 years old before FSA 2010 to approximately 35 years after FSA 2010. Consistent with the years 2005-2009, the average educational level was at least a high school diploma.

Regarding legal factors for the years 2011-2015, drug offenders in 2011-2015 had similar average criminal history scores as offenders in 2005-2009, but the offense severity scores were slightly lower after FSA 2010 (25.98) than before FSA 2010 (27.16). The majority of offenders were sentenced for the offense of trafficking. The majority of offenders in 2011-2015 remained in custody (79%) and pled guilty (96%) prior to sentencing. Description of the contextual factors revealed that the average state unemployment rate was approximately 10% in 2011-2015. The average percent black and percent Hispanic in a state increased slightly for the years 2011-2015 (14.7% and 16.8%,



respectively). The average percentage of Republican voters in a state remained relatively the same during the 2012 presidential election. During the 2012 presidential election, majority (62%) of states had a Republican governor. The average violent crime for the years 2011-2015 decreased to approximately 406 incidents per 100,000 individuals.



Table 1 Descriptive Statistics for Individual- and State-level Variables for Federal Crack and Powder

Cocaine Offenses for the Years 2005-2009 and 2011-2015

		Years 2005-2009 (N = 53,988)	5-2009 ,988)		Years $2011-2015$ (N = $36,204$)	11-2015 5,204)
	Mean	SD	Range	Mean	SD	Range
Dependent Variables Incarceration	86:0	0.15	0.00 - 1.00	0.97	0.17	0.00 - 1.00
Sentence Length (in months) ^a	103.63	83.09	0.03 - 840.00	85.72	72.02	0.03 - 960.00
Independent Variables Extralegal variables Race/Ethnicity						
White	0.13	0.38	0.00 - 1.00	0.10	0.31	0.00 - 1.00
Black	0.55	0.50	0.00 - 1.00	0.51	0.50	0.00 - 1.00
Hispanic	0.32	0.47	0.00 - 1.00	0.38	0.49	0.00 - 1.00
Male	0.91	0.29	0.00 - 1.00	0.90	0.30	0.00 - 1.00
Age (in years)	33.13	9.19	18.00 - 85.00	35.21	9.43	16.00 - 89.00
Age squared	1182.34	703.76	324.00 - 7225.00	1328.85	744.76	256.00 - 7921.00
Education	0.52	0.50	0.00-1.00	0.57	0.50	0.00-1.00
Legal Variables Criminal history score	2.75	1.88	1.00 - 6.00	2.68	1.86	1.00 - 6.00



	2.00 - 43.00	0.00 - 1.00	0.00 - 1.00		0.00 - 1.00	0.00 - 1.00	0.00 - 1.00	0.00 - 1.00		3.40-13.10	5.35-72.79	0.00-1.00	0.46-50.33	1.21-46.70	126.16-1250.50
	6.85	0.15	0.48		0.41	0.38	0.18	0.19		1.68	10.80	0.49	8.42	12.89	132.23
	25.98	0.97	0.63		0.79	0.17	0.03	96.0		10.06	47.36	0.62	14.74	16.80	405.58
	2.00 - 43.00	0.00 - 1.00	0.00 - 1.00		0.00 - 1.00	0.00 - 1.00	0.00 - 1.00	0.00 - 1.00		3.30 - 9.50	6.53-65.65	0.00-1.00	0.58-54.44	1.06-44.50	117.22-1418.02
	6.47	0.17	0.50		0.39	0.36	0.18	0.23		0.90	8.74	0.50	8.67	11.87	177.01
	27.16	0.97	0.52		0.82	0.15	0.03	0.95		6.34	47.15	0.46	14.39	13.76	483.33
Table 1 (Continued)	Offense severity score	Trafficking offense	Powder cocaine	Presentence status	In custody	Out on bail/bond	ROR	Guilty plea	Contextual Variables	State unemployment rate	Percentage voted Republican	2 Republican governor	Percent black	Percent Hispanic	Violent crime rate
للاستشارات	j			i							11	,			

^aBased on 52,428 and 34,450 incarcerated offenders in the sentence length data, for years 2005-2009 and 2011-2015, respectively (N = 86,878)

Decision to Incarcerate

Regression Analyses

Pre-FSA 2010 (Years 2005-2009). Table 2 describes the effects of extralegal, legal, and contextual factors on the decision to incarcerate drug offenders sentenced for crack and powder cocaine offenses for the years 2005-2009. Model 1 describes the effects of extralegal factors on the incarceration decision. Results indicate that all extralegal factors significantly influenced the decision to incarceration. Black drug offenders were 3.087 times more likely than white drug offenders to be incarcerated. Hispanic drug offenders were 4.102 times more likely than white drug offenders to be incarcerated. Age had a significant, curvilinear effect on incarceration decisions. The likelihood of incarceration increased with age, but the effects of age decreased as drug offenders age. The likelihood of incarceration was greater for male drug offenders and drug offenders with less than a high school diploma.

Model 2 describes the effects of extralegal and legal factors on the incarceration decision. The results indicate that, with the additions of legal factors, age no longer had a significant effect on the incarceration decision. Black drug offenders were 1.353 times more likely than white drug offenders to be incarcerated while Hispanic drug offenders were 1.922 times more likely than white drug offenders to be incarcerated. The decrease in the effect size of being black and being Hispanic after the addition of legal factors suggests that the racial differences in the likelihood of incarceration can be partially attributed to black and Hispanic drug offenders having more extensive criminal histories and having higher offense severity scores than white drug offenders. The effect size of gender also decreases when legal factors were added to the model, suggesting that male



drug offenders tend to have more disadvantaged criminal backgrounds than female drug offenders. Regarding legal factors, both criminal history and offense severity were statistically significant. As criminal history and offense severity scores increased, the likelihood of incarceration increased. The likelihood of incarceration was 3.011 times greater for drug offenders sentenced for trafficking, distributing, and/or selling drugs (hereafter trafficking) than for drug offenders sentenced for other drug-related offenses (e.g., simple possession and communication facilities). The type of cocaine was not significantly related to the decision to incarcerate. Drug offenders who were released on bail/bond or own their recognizance (ROR) and those who pled guilty were less likely to be incarcerated.



Logistic Regression Analyses Predicting Incarceration for Federal Crack and Powder Cocaine Offenses before the Table 2

Fair Sentencing Act 2010, 2005-2009

			Model 1				Model 2		
		Coefficient	SE	OR		Coefficient	SE	OR	
_	Extralegal Variables								
	Race/Ethnicity ^a								
	Black	1.127	0.067	3.087	* * *	0.303	0.083	1.353	* * *
120	Hispanic	1.411	0.084	4.102	* * *	0.653	0.105	1.922	* * *
	Male	1.619	0.063	5.048	* * *	0.792	0.077	2.207	* * *
	Age	0.050	0.002	1.051	* * *	0.003	0.019	1.003	
	Age squared	-0.001	0.000	0.999	* * *	0.000	0.077	1.000	
	High school or greater	-0.563	0.065	0.569	* * *	0.461	0.038	0.757	* * *
	Legal Variables								
	Criminal history score					0.461	0.038	1.586	* * *
	Offense severity score					0.193	900.0	1.213	* * *
	Trafficking Offense					1.102	0.1111	3.011	* * *
	Powder Cocaine					0.000	0.082	0.997	



Presentence status ^b Out on bail/bond ROR Guilty plea			-2.083 -2.128 -1.597	0.087 0.118 0.544	0.125 0.119 0.203	* * * * * * * *
	1.251 0.296	3.493 ***	-0.195	9990	0.823	
	0.113			0.468		
-2 Log-likelihood	10422.354			6254.890	0	
To Model Chi-Square	1329.81***			5497.090***	*	

Note. Reference categories are: (a) White drug offenders; (b) In custody. *p<0.05 **p<0.01 ***p<0.001

Table 2 (Continued)

Post-FSA 2010 (Years 2011-2015). Table 3 describes the effects of legal, extralegal and contextual factors on the decision to incarcerate drug offenders sentenced for crack and powder cocaine offenses for the years 2011-2015. Model 1 describes the effects of extralegal factors on the incarceration decision. Results indicate that all extralegal factors significantly influenced the incarceration decision. Similar to results from the years 2005-2009, black and Hispanic drug offenders were more likely than white drug offenders to be incarcerated. Male drug offenders were 4.505 times more likely than female drug offenders to be incarcerated. Age was found to have a significant, curvilinear effect on the incarceration decision. The likelihood of incarceration was lower for drug offenders with at least a high school diploma than for drug offenders with less than a high school diploma.

Model 2 describes the effects of extralegal and legal factors on the decision to incarcerate. The effects of extralegal factors on the decision to incarcerate decreased. Black drug offenders were 1.490 times more likely than white drug offenders to be incarcerated. Hispanic drug offenders were 1.719 times more likely than white drug offenders to be incarcerated. Age no longer had a significant effect on incarceration decisions. Additionally, educational level no longer had a significant effect on the decision to incarcerate. Regarding legal factors, both criminal history and offense severity had statistically significant associations with the decision to incarcerate. As the criminal history and offense severity scores increased, the likelihood of incarceration increased. The likelihood of incarceration was 2.530 times greater for drug offenders sentenced for trafficking than for drug offenders sentenced for other drug-related offenses. The type of cocaine had no significant influence on incarceration decisions.



Drug offenders who were released on bail/bond or ROR and those who pled guilty were less likely to be incarcerated.



Logistic Regression Analyses Predicting Incarceration for Federal Crack and Powder Cocaine Offenses after the Table 3

Fair Sentencing Act 2010, 2011-2015

		Model 1				Model 2		
	Coefficient	SE	OR		Coefficient	\mathbf{SE}	OR	
Extralegal Variables								
Race/Ethnicity ^a								
Black	0.818	0.081	2.266	* * *	0.399	0.098		* * *
Hispanic	1.129	0.090	3.092	* * *	0.542	0.109	1.719	* * *
Male	1.505	0.071	4.505	* * *	0.682	0.084	1.977	* * *
1 Age	0.061	0.017	1.063	* * *	0.018	0.020	1.019	
Age squared	-0.001	0.0002	0.999	* * *	-0.0003	0.0002	1.000	
High school or greater	-0.380	0.071	0.684	* * *	-0.101	0.083	0.904	
Legal Variables								
Criminal history score					0.322	0.038	1.380	* * *
Offense severity score					0.182	900.0	1.199	* * *
Trafficking Offense					0.928	0.127	2.530	* * *
Powder Cocaine					-0.022	0.090	0.979	
Presentence status ^b								
Out on bail/bond					-2.712	0.110	990.0	* * *
ROR					-2.803	0.140	0.061	* * *
Guilty plea					-2.258	1.028	0.105	* * *

Table 3 (Continued)						
Intercept	0.831	0.324	2.295 **	0.958	1.115	2.607
Psuedo-R ²	0.	0.080			0.434	
-2 Log-likelihood	850	8506.382		5	5527.546	
Model Chi-Square	735	735 160***		40	1013 650***	

Note. Reference categories are: (a) White and (b) In custody. $^*p<0.05 *^*p<0.01 *^**p<0.00$

Multilevel Analyses

Table 4 describes the full models of the effects of extralegal, legal and contextual factors on the decision to incarcerate for years before and after FSA 2010. For these models, I conducted hierarchical logistic regression analyses because independent variables are nested at two levels, with extralegal and legal factors at Level 1 and contextual factors at Level 2. In other words, factors relating to the case were nested within states. I began the multilevel analyses by estimating baseline models for extralegal and legal (Level 1) factors and their random coefficients. In other words, I allowed the effects of extralegal and legal factors to vary across states. With the exception of black and powder cocaine, all of the variance components were significant. Therefore, all of coefficients except black and powder cocaine were treated as random (i.e., allowed to vary), producing random-coefficients model. First, I estimated random-coefficient models to determine the random effects of the extralegal and legal factors and the fixed effects of the contextual-level factors on the decision to incarcerate. Second, I estimated random-effects models to determine the influence of the fixed effects of extralegal, legal and contextual factors on the decision to incarcerate. In these models, the intercept is the only item allowed to vary across states. Comparisons of chi-square values for both the random-coefficient and random-effects models revealed that the random-effects models were a better fit in explaining the decision to incarcerate (see Britt, 2000; Ulmer & Johnson, 2004). Therefore, all the multilevel models for the incarceration decision for the years 2005-2009 and 2011-2015 display the results for random-effects models.

Model 1 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for the years 2005-2009. Both black and Hispanic drug offenders



were more likely than white drug offenders to be incarcerated. The likelihood of incarceration was 2.364 times greater for male drug offenders than female drug offenders. Drug offenders with at least a high school diploma or higher were less likely than drug offenders with less than a high school diploma to be incarcerated. Regarding legal factors, drug offenders with greater criminal history and offense severity scores were more likely to be incarcerated. The likelihood of incarceration was 2.898 times greater for drug offenders sentenced for trafficking than for drug offenders sentenced for other drug-related offenses. Drug offenders released on bail/bond or ROR and those who pled guilty were less likely to be incarcerated. None of the contextual factors were found to significantly influence the decision to incarcerate.

Model 2 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for the years 2011-2015. Both black and Hispanic drug offenders were more likely than white drug offenders to be incarcerated. The effect size of being black on the incarceration decision slightly increased after FSA 2010 while the effect size of being Hispanic decreased after FSA 2010. Male drug offenders were 2.060 times more likely than female drug offenders to be incarcerated. Neither age nor educational level significantly influenced incarceration decisions. Regarding legal factors, drug offenders with greater criminal history and offense severity scores were more likely to be incarcerated. Drug offenders sentenced for trafficking were 2.532 times more likely than drug offenders sentenced for other drug-related offenses to be incarcerated. Drug offenders who were released on bail/bond or ROR and those who pled guilty were less likely to be incarcerated. None of the contextual factors were significantly related to the decision to incarcerate.



In order to determine whether extralegal, legal, and contextual factors had significantly different effects on incarceration decisions before and after FSA 2010, I calculated z-scores comparing the years 2005-2009 and years 2011-2015 (see Paternoster, Brame, Mazerolle, & Piquero, 1998). Based on the z-scores, three factors had significant interactions with these specific time periods. The results indicate that criminal history score had a stronger impact on the incarceration decision before FSA 2010 than on the incarceration decision after FSA 2010. Being released on bail/bond or ROR had a stronger impact on the incarceration decision after FSA 2010 than on the incarceration decision before FSA 2010.



Hierarchical Logistic Regression Analyses Predicting Incarceration for Federal Crack and Powder Cocaine Offenses Table 4

before and after the Fair Sentencing Act 2010, Years 2005-2009 and Years 2011-2015

	B	efore FSA 2010 $(N = 53,988)$	2010		Af ()	After FSA 2010 $(N = 36,204)$	0		
	Coefficient	SE	OR		Coefficient	SE	OR		Z
Extralegal Variables									
Race/Ethnicity ^a									
Black	0.316	0.090	1.372	* * *	0.372	0.107	1.451	* * *	-0.40
Hispanic	0.756	0.112	2.131	* * *	0.535	0.119	1.708	* * *	1.35
Σ	0.860	0.079	2.364	* * *	0.723	0.087	2.060	* * *	0.17
S Age	0.015	0.020	1.015		0.018	0.021	1.019		1.03
Age squared	0.000	0.000	1.000		-0.0003	0.0003	1.000		0.00
High school or greater	-0.300	0.079	0.741	* * *	-0.145	0.085	0.865		-1.34
Legal Variables									
Criminal history score	0.477	0.039	1.611	* * *	0.331	0.039	1.393	* * *	2.65 *
Offense severity score	0.198	0.006	1.219	* * *	0.187	0.007	1.205	* * *	1.19
Trafficking Offense	1.064	0.117	2.898	* * *	0.929	0.137	2.532	* * *	0.75
Powder Cocaine	0.081	0.087	1.084		0.007	0.094	1.007		09.0
Presentence status ^b									
Out on bail/bond	-2.053	0.090	0.128	* * *	-2.699	0.112	0.067	* * *	* 05.4

Table 4 (Continued)										
ROR	-2.187	0.128	0.112	* * :	-2.720	0.149	0.066	* : * :	2.72 *	¥
Guilty plea	-1.399	0.543	0.247	* *	-2.204	1.035	0.110	* * *	69.0	
Contextual Variables										
Unemployment rate Percent voted	-0.031	0.103	0.970		-0.012	0.071	0.988		-0.15	
Republican	0.001	0.011	1.001		0.0002	0.010	1.002		0.10	
Republican governor	0.013	0.197	1.013		-0.019	0.234	0.981		0.10	
Percent black	-0.003	0.014	0.997		0.015	0.014	1.015		-0.91	
Percent Hispanic	-0.010	0.011	0.660		0.004	0.012	1.004		-0.86	
Violent crime rate	0.000	0.001	1.000		-0.0001	0.001	1.000		0.10	
Intercept	-0.422	1.025	0.656		0.780	1.381	2.182		-0.70	
-2 Log-likelihood		5590.374	4		5	5036.963				
Model Chi-Square		2565.970***	* * *		18.	836.310***				

Note. Reference categories are: (a) White and (b) In custody. $^*p<0.05$ **p<0.01 ***p<0.001

Models by Race/Ethnicity for the Years 2005-2009 and 2011-2015. Table 5 describes the results of hierarchical logistic regression analyses for the three racial/ethnic categories of drug offenders to examine whether the influence of extralegal, legal, and contextual factors on the incarceration decision vary by race/ethnicity for the years 2005-2009. Model 1 describes the effects of extralegal, legal, and contextual factors on incarceration decisions for white drug offenders. Results indicate that gender and educational level significantly influenced incarceration decisions for white drug offenders. Among whites, male drug offenders were 1.576 times more likely than female drug offenders to be incarcerated. The likelihood of incarceration was lower for white drug offenders with at least a high school diploma than for white drug offenders with less than a high school diploma.

Regarding legal factors, white drug offenders with greater criminal history and offense severity were more likely to be incarcerated. The likelihood of incarceration was 2.227 times greater for white drug offenders sentenced for trafficking than for white drug offenders sentenced for other drug-related offenses. The likelihood of incarceration was lower for white drug offenders who were released on bail/bond or ROR. None of the contextual factors had a significant influence on incarceration decisions for white drug offenders.

Model 2 describes the effect of extralegal, legal, and contextual factors on the incarceration decision among black drug offenders. Among blacks, results indicate that male drug offenders were 3.164 times more likely than female drug offenders to be incarcerated. The likelihood of incarceration was lower for black drug offenders with at least a high school diploma than for black drug offenders with less than a high school



diploma. Regarding legal factors, black drug offenders with greater criminal history and offense severity scores were more likely to be incarcerated. Black drug offenders who were released on bail/bond or ROR and black drug offenders who pled guilty were less likely to be incarcerated. None of the contextual factors had a significant influence on incarceration decisions for black drug offenders.

Model 3 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for Hispanic drug offenders. Among Hispanic drug offenders, results indicate that males were 2.163 times more likely than females to be incarcerated. Regarding legal factors, Hispanic drug offenders with greater criminal history and offense severity scores were more likely to be incarcerated. The likelihood of incarceration was 2.876 times greater for Hispanic drug offenders sentenced for trafficking than for Hispanic drug offenders sentenced for other drug-related offenses. The likelihood of incarceration was lower for Hispanic drug offenders who were released on bail/bond or ROR prior to sentencing. Regarding contextual factors, a one-point increase in state unemployment rate lowered the likelihood of incarceration for Hispanic drug offenders. As the percentage of Hispanics in a state's population increased, the likelihood of incarceration for Hispanic drug offenders decreased.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on incarceration decisions for white, black, and Hispanic drug offenders, I calculated z-scores comparing whites vs. blacks and whites vs. Hispanics for the years 2005-2009. Based on the z-scores for the white-black comparison, one factor had significant interactions with race. Being male had a stronger impact on incarceration decisions for black drug offenders than white drug offenders.



White-Hispanic comparison revealed that five factors had significant interactions with ethnicity. Criminal history and offense severity scores had a stronger impact on incarceration decisions for white drug offenders than for Hispanic drug offenders. Being released on bail/bond or ROR had stronger impacts on incarceration decisions for Hispanic drug offenders than for black drug offenders. The percentage of Hispanics in a state had a stronger impact on incarceration decisions for Hispanic drug offenders than for white drug offenders.



Hierarchical Logistic Regression Analyses Predicting Incarceration for Federal Crack and Powder Cocaine Offenses Table 5

before the Fair Sentencing Act, by Race/Ethnicity, 2005-2009

	W	White offenders	ders	Blac	Black offenders	lers		Hisp	Hispanic offenders	nders	
	<u> </u>	(N = 7,061)	1)	Z)	(N = 26,610)	()		2	(N = 17,317)	(7)	
	Coefficient SE	SE	OR	Coefficient	SE	OR	Z	Coefficient	SE	OR	Z
Extralegal Variables											
Male	0.455	0.139	1.576 ***	1.152	0.118	3.164 ***	-3.83 *	0.771	0.177	2.163 ***	-1.40
Age	-0.070	0.037	0.932	0.050	0.029	1.051	-2.55 *	0.058	0.041	1.059	-2.33 *
Age squared	0.001	0.001	1.001	-0.001	0.0004	** 666.0	0.63	-0.001	0.005	0.999	0.39
High school or greater	-0.410	0.145	0.663 **	-0.226	0.119	0.800 ***	0.93	-0.172	0.163	0.842	1.09
,											
Legal Variables											
L Criminal history score	0.553	0.068	1.738 ***	0.497	0.054	1.644 ***	89.0	0.257	0.099	1.293 **	2.46 *
State Severity Score	0.215	0.011	1.240 ***	0.187	0.009	1.206 ***	1.97	0.190	0.013	1.209 ***	1.47 *
Trafficking offense	0.801	0.195	2.227 ***	1.291	0.177	3.635 ***	-1.86	1.056	0.268	2.876 ***	-0.77
Powder cocaine	0.213	0.152	1.237	-0.057	0.121	0.944	1.39	0.468	0.256	1.597	-0.86
Presentence Status ^a											
Out on Bail/Bond	-1.692	0.153	0.184 ***	-1.855	0.137	0.156 ***	0.80	-2.853	0.203	0.058 ***	4.57 *
ROR	-1.674	0.196	0.188 ***	-2.036	0.194	0.131 ***	1.31	-3.290	0.327	0.037 ***	4.24 *
Guilty plea	-0.374	0.843	0.688	-2.087	1.045	0.124 *	1.28	-1.824	1.143	0.161	1.02

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Contextual Variables											
Unemployment rate	0.025	0.124	1.026	-0.046	0.126	0.955	0.40	-0.421	0.196	0.657 *	1.92
Percent voted Republican	0.009	0.014	1.009	-0.006	0.015	0.994	0.73	-0.003	0.020	0.997	0.49
Republican governor	-0.256	0.239	0.774	0.363	0.261	1.438	0.30	0.030	0.316	1.031	-0.72
Percent black	0.001	0.018	1.001	-0.0001	0.016	1.000	0.01	-0.022	0.027	0.979	0.72
Percent Hispanic	0.023	0.014	1.023	-0.012	0.014	0.988	1.77	-0.050	0.016	0.951 ***	3.43 *
Violent crime rate	-0.001	0.001	0.999	0.001	0.001	1.001	1.42	0.003	0.002	1.003	1.79
Intercept	-0.913	1.461	0.401	-0.272	1.569	0.762	-0.30	3.082	2.116	21.792	-1.55
-2 Log-likelihood Model Chi-Square	1 72	1191.995 720.220***		26	2688.907 579.800***			17.	1301.449 582.400***		



Table 6 describes the results of hierarchical logistic regression analyses for the three racial/ethnic categories of drug offenders to examine whether the influence of extralegal, legal, and contextual factors on the incarceration decision vary by race/ethnicity for the years 2011-2015. Model 1 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for white drug offenders. Among whites, male drug offenders were 1.850 times more likely than female drug offenders to be incarcerated. Regarding legal factors, the likelihood of incarceration was greater for white drug offenders with greater criminal history and offense severity scores than for drug offenders with lower criminal history and offense severity scores. White drug offenders sentenced for trafficking were 3.260 times more likely than white drug offenders sentenced for other drug-related offenses to be incarcerated. The likelihood of incarceration was lower for white drug offenders who were released on bail/bond or ROR. None of the contextual factors had a significant influence on incarceration decisions for white drug offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for black drug offenders. Among black drug offenders, black males were 2.215 times more likely than females to be incarcerated. Regarding legal factors, the likelihood of incarceration was greater for black drug offenders with greater criminal history and offense severity scores than for black drug offenders with lower criminal history and offense severity scores. Black drug offenders sentenced for trafficking were 2.504 times more likely than black drug offenders sentenced for other

¹ The variable, *Guilty plea*, was excluded from the models partitioned by race/ethnicity because there is not sufficient variation in the measure, causing high beta-values for both the measure and intercept.



drug-related offenses to be incarcerated. Black drug offenders who were released on bail/bond or ROR were less likely to be incarcerated. None of the contextual factors had a significant influence on incarceration decisions for black drug offenders.

Model 3 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for Hispanic drug offenders. Among Hispanic drug offenders, males were 2.256 times more likely than females to be incarcerated. Regarding legal factors, the likelihood of incarceration was greater for Hispanic drug offenders with greater criminal history and offense severity scores. Hispanic drug offenders sentenced for trafficking were 2.099 times more likely than Hispanic drug offenders sentenced for other drug-related offenses to be incarcerated. Hispanic drug offenders who were released on bail/bond or ROR were less likely to be incarcerated. None of the contextual factors had a significant influence on incarceration decisions for Hispanic drug offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on incarceration decisions for white, black, and Hispanic drug offenders, I calculated z-scores comparing whites vs. blacks and whites vs. Hispanics for the years 2011-2015. Based on the z-scores for the white-black comparison, one factor had significant interactions with race. Age squared had a stronger impact on the incarceration decision for black drug offenders than for white drug offenders. White-Hispanic comparison revealed that two factors had significant interactions with ethnicity. Being released on bail/bond or ROR had stronger impacts on the incarceration decision for Hispanic drug offenders than for white drug offenders.



Hierarchical Logistic Regression Analyses Predicting Incarceration for Federal Crack and Powder Cocaine Offenses Table 6

after the Fair Sentencing Act, by Race/Ethnicity, 2011-2015

	Whi	White offenders $(N = 3,800)$	lers	Bl _k	Black offenders $(N = 17,806)$	ers		Hispa (N	Hispanic offenders $(N = 13,273)$	iders	
	Coefficient	SE	OR	Coefficient	SE	OR	Z	Coefficient	SE	OR	Z
Extralegal Variables											
Male	0.615	0.186	1.850 ***	0.795	0.130	2.215 ***	-0.29	0.814	0.161	2.256 ***	-0.81
Age	-0.062	0.042	0.940	0.051	0.032	1.052	-0.65	0.016	0.044	1.016	-0.54
Age_Squared	0.001	0.001	1.001	-0.008	0.0004	* 666.0	8.41 *	-0.0001	900.0	1.000	0.18
High school or greater	-0.250	0.197	0.779	0.017	0.124	1.017	6.40 *	-0.265	0.151	0.767	90.0
Legal Variables											
Criminal history score	0.479	0.092	1.615 ***	0.295	0.049	1.343 ***	1.77	0.349	0.108	1.417 ***	0.92
Offense severity score	0.212	0.015	1.236 ***	0.177	0.010	1.193 ***	1.94	0.189	0.013	1.208 ***	1.28
Trafficking offense	1.182	0.302	3.260 ***	0.918	0.185	2.504 ***	0.75	0.741	0.296	2.099 *	1.04
Powder cocaine	-0.340	0.224	0.712	0.065	0.120	1.067	-1.08	0.027	0.249	1.090	-1.11
Presentence Status ^a											
Out on Bail/Bond	-2.264	0.228	0.104 ***	-2.713	0.171	0.066 ***	2.32	-2.926	0.204	0.054 ***	2.16 *
ROR	-1.829	0.287	0.161 ***	-3.063	0.218	0.047 ***	3.42	-2.983	0.295	0.051 ***	2.80 *

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Contextual Variables											
Unemployment rate	0.113	0.085	1.120	-0.037	0.090	0.964	1.21	0.009	0.099	1.009	0.80
Percent voted Republican	-0.002	0.011	0.998	0.004	0.012	1.004	-0.37	0.003	0.013	1.003	-0.29
Republican governor	-0.139	0.267	0.870	-0.037	0.282	0.964	-0.26	-0.101	0.312	0.904	-0.09
Percent black	-0.022	0.018	866.0	0.032	0.017	1.033	2.16 *	0.031	0.025	1.031	-1.72
Percent Hispanic	0.020	0.013	1.020	0.015	0.015	1.015	0.27	-0.003	0.013	0.997	1.25
Violent crime rate	-0.001	0.001	0.999	900.0	0.001	1.001	-4.96 *	0.001	0.002	1.001	-0.89
Intercept	-1.071	1.280	0.343	-2.010	1.207	0.134	1.75	-1.444	1.479	0.236	0.19
-2 Log-likelihood Model Chi-Square	371	1100.007 371.910***		24 838	2411.193 338.660***			14	1485.928 552.510***		

Note. Reference categories are: (a) In custody. *p<0.05 **p<0.01 ***p<0.001

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

Models by Drug Type for the Years 2005-2009 and 2011-2015. Table 7 describes the results of hierarchical logistic regression analyses of the two drug categories of drug offenders to examine whether the influence of extralegal, legal, and contextual factors on the incarceration decision vary by drug type for the years 2005-2009. Model 1 describes the effects of extralegal, legal, and contextual factors on incarceration decisions for crack cocaine offenders. Regarding extralegal factors, neither being black nor being Hispanic had a significant influence on incarceration decisions for crack cocaine offenders. Male crack cocaine offenders were 2.949 times more likely than female crack cocaine offenders to be incarcerated. Regarding legal factors, the likelihood of incarceration was greater for crack cocaine offenders with greater criminal history and offense severity scores than for crack cocaine offenders with lower criminal history and offense severity scores. Crack cocaine offenders sentenced for trafficking were 3.882 times more likely than crack cocaine offenders sentenced for other drug-related offenses to be incarcerated. Crack cocaine offenders released on bail/bond or ROR were less likely to be incarcerated. None of the contextual factors had a significant influence on incarceration decisions for crack cocaine offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for powder cocaine offenders. Regarding extralegal factors, black and Hispanic powder cocaine offenders were 1.364 and 2.179, respectively, times more likely than white powder cocaine offenders to be incarcerated. Male powder cocaine offenders were 2.052 times more likely than female crack cocaine offenders to be incarcerated. The likelihood of incarceration was lower for powder cocaine offenders



with at least a high school diploma than for powder cocaine offenders with less than a high school diploma.

Regarding legal factors, powder cocaine offenders with greater criminal history and offense severity scores were more likely to be incarcerated. The likelihood of incarceration was 2.430 times greater for powder cocaine offenders sentenced for trafficking than for powder cocaine offenders sentenced for other drug-related offenses. Powder cocaine offenders who were released on bail/bond or ROR and powder cocaine offenders who pled guilty were less likely to be incarcerated. None of the contextual factors had a significant influence on incarceration decisions for powder cocaine offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on crack and powder cocaine offenders for the years 2005-2009, I calculated z-scores for crack cocaine vs. powder cocaine. Based on the z-scores, three factors had significant interactions with drug type. Being male had a stronger impact on incarceration decisions for crack cocaine offenders than powder cocaine offenders. Offense severity score had a stronger impact on incarceration decisions for powder cocaine offenders than crack cocaine offenders. The offense of trafficking had a stronger impact on incarceration decisions for crack cocaine offenders than powder cocaine offenders.



Hierarchical Logistic Regression Analyses Predicting Incarceration for Federal Crack and Powder Cocaine Offenses Table 7

before the Fair Sentencing Act, by Drug Type, 2005-2009

	Crack Coo (N :	Cocaine Offenders $(N = 26,033)$	nders		Powder C (N	Powder Cocaine Offenders $(N = 27,955)$	fenders			
	Coefficient	SE	OR		Coefficient	SE	OR		Z	
Extralegal Variables										
Race/Ethnicity ^a										
Black	0.237	0.152	1.267		0.311	0.114	1.364	* *	-0.39	
5 Hispanic	0.402	0.259	1.495		0.779	0.128	2.179	* * *	-1.30	
Male	1.081	0.132	2.949	* * *	0.719	0.102	2.052	* * *	2.17	*
Age	0.001	0.032	1.001		0.025	0.025	1.026		-0.59	
Age squared	-0.0003	0.000	1.000		-0.001	0.000	0.999		1.40	
High school or greater	-0.214	0.127	0.808		-0.312	0.102	0.732	* *	09.0	
Legal Variables										
Criminal history score	0.447	0.055	1.563	* * *	0.510	0.056	1.665	* * *	-0.80	
Offense severity score	0.164	0.010	1.179	* * *	0.217	0.008	1.242	* * *	4.14	*
Trafficking Offense	1.356	0.187	3.882	* * *	0.888	0.149	2.430	* * *	2.73	*
Presentence status ^b										
Out on bail/bond	-2.045	0.154	0.129	* * *	-2.058	0.112	0.128	* * *	0.07	
ROR	-2.123	0.208	0.120	* * *	-2.202	0.163	0.1111	* * *	0.30	



	Table 7 (Continued)							
	Guilty plea	-1.503	1.060	0.218	-1.401	0.646	0.246 *	-0.08
	Contextual Variables							
	Unemployment rate Percentage voted	-0.041	0.121	096.0	-0.030	0.119	0.971	-0.06
	Republican	0.005	0.014	1.005	-0.002	0.013	0.998	0.37
	Republican governor	-0.093	0.228	0.911	0.016	0.229	1.016	-0.34
	Percentage black	0.013	0.016	1.013	-0.009	0.016	0.991	0.97
	Percentage Hispanic	-0.019	0.013	0.981	-0.005	0.012	0.995	-0.79
	Violent crime rate	0.0002	0.001	1.000	0.0001	0.001	1.000	0.07
143	Intercept	980.0	1.530	1.090	-0.422	1.220	0.656	0.26
	-2 Log-likelihood	2	2228.262			3725.938		
	Model Chi-Square	91	913.130***		15	1596.720***		

Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001

Table 8 describes the results of hierarchical logistic regression analyses of the two drug categories of drug offenders to examine whether the influence of extralegal, legal, and contextual factors on the incarceration decision vary by drug type for the years 2011-2015. Model 1 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for crack cocaine offenders. Regarding extralegal factors, being black or being Hispanic had no significant influence on incarceration decisions. Male crack cocaine offenders were 2.912 times more likely than female crack cocaine offenders to be incarcerated. Regarding legal factors, crack cocaine offenders with greater criminal history and offense severity scores were more likely to be incarcerated. Crack cocaine offenders sentenced for trafficking were 2.861 times more likely than crack cocaine offenders sentenced for other drug-related offenses to be incarcerated. Crack cocaine offenders who were released on bail/bond or ROR likely to be incarcerated. None of the contextual factors had a significant influence on incarceration decisions for crack cocaine offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for powder cocaine offenders. Regarding extralegal factors, black powder cocaine offenders were 1.672 times more likely than white powder cocaine offenders to be incarcerated. Hispanic powder cocaine offenders were 1.764 times more likely than white powder cocaine offenders to be incarcerated. The likelihood of incarceration was 1.805 times greater for male powder cocaine offenders than for female cocaine offenders. Regarding legal factors, powder cocaine offenders with greater criminal history and offense severity scores were more likely to be incarcerated. The likelihood of incarceration was 2.388 times greater for powder cocaine offenders



sentenced for trafficking than for powder cocaine offenders sentenced for other drugrelated offenses. Powder cocaine offenders who were released on bail/bond or ROR prior to sentencing were less likely to be incarcerated. None of the contextual factors had a significant influence on incarceration decisions for powder cocaine offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on crack and powder cocaine offenders for the years 2011-2015, I calculated z-scores for crack cocaine vs. powder cocaine. Based on the z-scores, three factors had significant interactions with drug type. Being black had a stronger impact on incarceration decisions for powder cocaine offenders than crack cocaine offenders. Being male had a stronger impact on incarceration decisions for crack cocaine offenders than powder cocaine offenders. Offense severity score had a greater impact on incarceration decisions for powder cocaine offenders than crack cocaine offenders.



Hierarchical Logistic Regression Analyses Predicting Incarceration for Federal Crack and Powder Cocaine Offenses Table 8

after the Fair Sentencing Act, by Drug Type, 2011-2015

			*		*						*				
	Z		2.47	-1.27	2.53	0.23	-1.25	-0.74		-1.14	-2.36	0.62		0.03	-0.93
			* * *	* * *	* * *					* * *	* * *	* * *		* * *	* * *
offenders 44)	OR		1.672	1.764	1.805	1.020	1.000	0.897		1.449	1.218	2.388		0.066	0.072
Powder cocaine offenders $(N = 22,844)$	SE		0.128	0.131	0.110	0.025	0.000	0.106		0.055	0.008	0.168		0.137	0.183
Powć	Coefficient		0.514	0.568	0.591	0.019	0.000	-0.108		0.371	0.197	0.870		-2.722	-2.634
					* * *					* * *	* * *	* * *		* * *	* * *
ffenders 50)	OR		0.903	1.160	2.912	1.040	0.999	0.786		1.325	1.177	2.861		990.0	0.053
Crack cocaine offenders $(N = 13,360)$	SE		0.213	0.305	0.155	0.041	0.001	0.146		0.057	0.012	0.240		0.200	0.259
Crack (Coefficient		-0.102	0.148	1.072	0.039	-0.001	-0.241		0.281	0.163	1.051		-2.715	-2.929
		Extralegal Variables	Black	Hispanic	Male	Age	Age squared	High school or greater	Legal Variables	Criminal history score	Offense severity score	Trafficking Offense	Presentence status ^b	Out on bail/bond	ROR



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	Contextual Variables								
	Unemployment rate	-0.005	0.091	0.995	0.044	0.070	1.045		-0.43
	Percentage voted Republican	0.007	0.012	1.007	0.001	0.010	1.001		0.39
	Republican governor	-0.058	0.287	0.944	-0.086	0.224	0.917		0.08
	Percentage black	0.011	0.018	1.011	0.010	0.014	1.010		0.04
	Percentage Hispanic	0.001	0.015	1.001	0.010	0.011	1.010		-0.48
	Violent crime rate	0.001	0.001	1.001	-0.001	0.001	0.999		0.14
	Intercept	-1.414	1.294	0.243	-2.070	0.951	0.126	*	0.41
14'	-2 Log-likelihood -2 Model Chi-Square	59	1647.289 591.550***		1	3397.411 [243.190***			
7									

Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001

Determination of Sentence Length

Regression Analyses

Pre-FSA 2010 (Years 2005-2009). Table 9 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for powder cocaine and crack cocaine offenses during the years 2005-2009.² Model 1 describes the effects of extralegal factors on sentence length. The R-squared value for Model 1 indicates that extralegal factors alone explained roughly 9% of the variation in sentence length.

Regarding extralegal factors, black drug offenders received prison sentences that were 15.33 days longer than the prison sentences received by white drug offenders. Hispanic drug offenders received prison sentences that were 6.51 days longer than prison sentences received by white drug offenders. Prison sentences were approximately 22.08 days longer for male drug offenders than female drug offenders. Age had a curvilinear effect on the determination of sentence length, with prison sentences increasing with age and, at some point, decreasing as drug offenders age. Prison sentences were shorter for drug offenders with at least a high school diploma than for drug offenders with less than a high school diploma.

Model 2 describes the effects of extralegal and legal factors on the determination of sentence length. The R-squared value for Model 2 indicates extralegal and legal factors combined explain roughly 55% of the variation in the determination of sentence length. Regarding extralegal factors, all of them remained statistically significant; however, their effect sizes were reduced. For example, black and Hispanic drug offenders received

² Interpretation of hierarchical linear regression analyses is based on a 30-day month. For example, the unstandardized beta for being black is 0.511. I multiplied 0.511 by 30 days, producing 15.33 days.



prison sentences that were 4.02 and 2.19 days, respectively, longer than prison sentences received by white drug offenders. Regarding legal factors, a one-point increase in criminal history score increased prison sentences by 3.30 days. A one-point increase in offense severity score increased prison sentences by 2.52 days. Prison sentences were 9.63 days longer for drug offenders sentenced for trafficking than for drug offenders sentenced for other drug-related offenses. Prison sentences were longer for powder cocaine offenders than for crack cocaine offenders. Prison sentences were shorter for drug offenders who were released on bail/bond or ROR and those who pled guilty.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Crack and Table 9

Powder Cocaine Offenses before the Fair Sentencing Act 2010, 2005-2009

		Model 1	1			Model 2		
	q	SE	β		q	SE	β	
Extralegal Variables								
Race/Ethnicity ^a								
Black	0.511	0.014	0.245	* * *	0.134	0.010	0.064	* * *
Hispanic	0.217	0.015	0.098	* * *	0.073	0.011	0.033	* * *
Male	0.736	0.016	0.200	* * *	0.304	0.011	0.082	* * *
Age 15	990.0	0.003	0.058	* * *	0.009	0.002	0.083	* * *
	-0.001	0.00004	-0.552	* * *	-0.0002	0.00003	-0.102	* * *
High school or greater	-0.080	0.009	-0.039	* * *	-0.041	900.0	-0.020	* * *
Leoal Variables								
Criminal history score					0.110	0.002	0.200	* * *
Offense severity score					0.094	0.001	0.555	* * *
Trafficking Offense					0.321	0.021	0.045	* * *
Powder Cocaine					-0.019	0.008	-0.009	*
Presentence status ^b								
Out on bail/bond					-0.391	0.009	-0.131	* * *
ROR					-0.750	0.019	-0.120	* * *
Guilty plea					-0.289	0.014	-0.064	* * *

Table 9 (Continued)						
Intercept	2.098	0.053	* * *	0.964	0.046	* * *
R-Squared		0.094			0.552	

Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001

Post-FSA 2010 (Years 2011-2015). Table 10 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for powder cocaine and crack cocaine drug offenders during the years 2011-2015. Model 1 describes the effects of extralegal factors on the determination of sentence length. The R-squared value for Model 1 indicates that extralegal factors alone explained roughly 8% of the variation in sentence length. Regarding extralegal factors, black and Hispanic drug offenders received prisons sentences that were 13.20 days and 7.95 days, respectively, longer than prison sentences received by white drug offenders. Prison sentences were 22.83 days longer for male drug offenders than for female drug offenders. Age had a significant, curvilinear effect on the determination of sentence length. Prison sentences were shorter for drug offenders with at least a high school diploma than for drug offenders with less than a high school diploma.

Model 2 describes the effects of extralegal and legal factors on the determination of sentence length. When legal factors are added to the model, the R-squared value increased, indicating that extralegal and legal factors combined explain 51% of the variation in sentence length. Additionally, the effect sizes of extralegal factors were reduced. Regarding legal factors, prison sentences were 3.42 days and 2.82 days longer for drug offenders with greater criminal history and offense severity scores, respectively, than for drug offenders with lower criminal history and offense severity scores. Drug offenders sentenced for trafficking received prison sentences that were 4.23 days longer than prison sentences received by drug offenders sentenced for other drug-related offenses. The type of drug was not statistically significant in the determination of sentence length, suggesting no significant differences in prison sentences received by



powder cocaine and crack cocaine drug offenders. Drug offenders who were released on bail/bond or ROR and those who pled guilty received shorter prison sentences.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Crack and Table 10

Powder Cocaine Offenses before the Fair Sentencing Act 2010, 2011-2015

	Model 1	el 1			Model 2	el 2		
	þ	SE	β		q	SE	β	
Extralegal Variables								
Race/Ethnicity ^a								
Black	0.440	0.021	0.193	* * *	0.186	0.016	0.082	* * *
Hispanic	0.265	0.021	0.113	* * *	0.116	0.016	0.050	* * *
Male	0.761	0.021	0.190	* * *	0.345	0.016	0.086	* * *
Age	0.079	0.004	0.649	* * *	0.019	0.003	0.153	* * *
Age squared	-0.001	0.0005	-0.613	* * *	-0.0003	0.00004	-0.168	* * *
High school or greater	-0.089	0.012	-0.039	* * *	-0.061	0.009	-0.027	* * *
Legal Variables								
Criminal history score					0.114	0.003	0.187	* * *
Offense severity score					0.094	0.001	0.539	* * *
Trafficking Offense					0.141	0.033	0.016	* * *
Powder Cocaine					0.015	0.011	900.0	
Presentence status ^b								
Out on bail/bond					-0.547	0.013	-0.171	* * *
ROR					-0.866	0.027	-0.123	* * *

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Table 12 (Continued)						
Guilty plea				-0.306	0.023	-0.053 ***
Intercept	1.557	0.074	* * *	0.799	0.068	* * *
R-Squared		0.076			0.510	

Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001



Multilevel Analyses

Table 11 describes the full models for the effects of extralegal, legal and contextual factors on the determination of sentence length for years before and after FSA 2010. For these models, I conducted hierarchical linear regression analyses because independent variables are nested at two levels, with extralegal and legal factors at Level 1 and contextual factors at Level 2. I began the multilevel analyses by estimating baseline models for extralegal and legal (Level 1) factors and their random coefficients. In other words, I allowed the effects of extralegal and legal factors vary across states. With the exception of black, all of the variance components were significant. Therefore, all of coefficients except black were treated as random (i.e., allowed to vary), producing random-coefficients model. However, random-effects models (i.e., intercept varies across states) for the determination of sentence length provide better fit models than random-coefficients models (Britt, 2000). Therefore, all the multilevel models for the determination of sentence length for the years 2005-2009 and 2011-2015 display the results for random-effects models.

Model 1 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for the years 2005-2009. Regarding extralegal factors, prison sentences were 3.06 days longer for black drug offenders than for white drug offenders. Hispanic drug offenders receive prison sentences that were 2.49 days longer than prison sentences received by white drug offenders. Age had a significant, curvilinear effect on the determination of sentence length. Male drug offenders received prison sentences that were 9.57 days longer than prison sentences received by female drug



offenders. Prison sentences were shorter for drug offenders with at least a high school diploma than for drug offenders with less than a high school diploma.

Regarding legal factors, a one-point increase in criminal history score increase prison sentences by 3.30 days. A one-point increase in offense severity score increased sentence length by 2.79 days. Prison sentences were 9.30 days longer for drug offenders sentenced for trafficking than for drug offenders sentenced for other drug-related offenses. Prison sentences were shorter for powder cocaine offenders than for crack cocaine offenders. Prison sentences were shorter for drug offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, a one-point increase in the percentage of Republican voters during the 2012 presidential election increased prison sentences for drug offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for the years 2011-2015. Regarding extralegal factors, black and Hispanic drug offenders received prison sentences that were 3.54 days and 2.46 days, respectively, longer than prison sentences received by white drug offenders. Prison sentences were 10.83 days longer for male drug offenders than for female drug offenders. Age had a significant, curvilinear effect on the determination of sentence length. Prison sentences were shorter for drug offenders with at least high school diploma.

Regarding legal factors, a one-point increase in criminal history score increased prison sentences by 3.39 days. A one-point increase in offense severity score increased prison sentences by 2.76 days. Prison sentences were 4.02 days longer for drug offenders sentenced for trafficking than drug offenders sentenced for other drug-related offenses.

The type of drug had no significant influence on the determination of sentence length for



the years 2011-2015. Prison sentences were shorter for drug offenders released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, a one-point increase in the percentage of Republican voters during the 2012 presidential election resulted in a 0.6% increased prison sentences for drug offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on the determination of sentence length before and after FSA 2010, I calculated z-scores comparing the years 2005-2009 vs. years 2011-2015 (Paternoster, et al., 1998). Based on the z-scores, five factors had significant interactions with these specific time periods. The results indicate that age squared had a stronger impact on sentence length after FSA 2010 than before FSA 2010. The offense of trafficking had a stronger impact on sentence length before FSA 2010 than after FSA 2010. The type of drug had a stronger impact on sentence length before FSA 2010 than after FSA 2010. Being released on bail/bond or ROR had a stronger impact on sentence length after FSA 2010 than before the FSA 2010.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Crack and Table 11

Powder Cocaine Offenses before and after the Fair Sentencing Act 2010, Years 2005-2009 and 2011-2015

	Befor (N	Before FSA 2010 (N = 52,428)	0	Aft.	After FSA 2010 $(N = 34,450)$	0	
	b	SE		р	SE		Z
Extralegal Variables							
Race/Ethnicity ^a							
Black	0.102	0.00	* * *	0.118	0.016	* * *	-0.87
	0.083	0.011	* * *	0.082	0.016	* * *	0.05
Male	0.329	0.011	* * *	0.361	0.015	* * *	-1.72
Age	0.013	0.002	* * *	0.019	0.003	* * *	-1.66
Age squared	-0.0002	0.00003	* * *	-0.0003	0.00003	* * *	2.36 *
High school or greater	-0.034	0.006	* * *	-0.053	0.009	* * *	1.76
Legal Variables							
Criminal history score	0.110	0.002	* * *	0.113	0.003	* * *	-0.83
Offense severity score	0.093	0.001	* * *	0.092	0.001	* * *	0.71
Trafficking Offense	0.310	0.020	* * *	0.134	0.021	* * *	* 70.9
Powder Cocaine	-0.047	0.008	* * *	-0.017	0.011		-3.72 *
Presentence status ^b							

Table 11 (Continued)								
Out on bail/bond	-0.378	0.009	* * *	-0.541	0.012	* * *	10.87	*
ROR	-0.555	0.019	* * *	-0.687	0.027	* * *	4.00	*
Guility plea	-0.286	0.013	* * *	-0.326	0.022	* * *	1.79	
Contextual Variables								
Unemployment rate	-0.002	0.024		0.006	0.013		-0.29	
Percent voted Republican	0.013	0.003	* * *	0.006	0.002	* * *	1.94	
Republican governor	-0.013	0.049		0.072	0.044		-1.29	
Percent black	0.002	0.003		0.004	0.003		0.94	
Percent Hispanic	0.0004	0.003		-0.002	0.003		90.0	
Violent crime rate	0.0002	0.0002		0.0001	0.0002		3.53	*
160 Intercept	0.193	0.192		0.435	0.158	* *	76.0	
-2 Log-likelihood	102540.580	.580		77269.156	.156			
Model Chi Square	65944.330***	30***		35682.130***	30***			

Note. Reference categories are: (a) White drug offenders; (b) In custody. $^*p<0.05$ **p<0.01 ***p<0.001

Models by Race/Ethnicity for the Years 2005-2009 and 2011-2015. Table 12 describes the results of hierarchical linear regression analyses for the three racial/ethnic categories of drug offenders to examine whether the influence of extralegal, legal, and contextual factors on the determination of sentence length vary by race/ethnicity for the years 2005-2009. Model 1 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for white drug offenders. Among white drug offenders, results indicate that males received prison sentences that were 9.78 days longer than prison sentences received by females. Regarding legal factors, prison sentences were longer for white drug offenders with greater criminal history and offense severity scores than for white drug offenders with lower criminal history and offense severity scores. Prison sentences were 9.66 days longer for white drug offenders sentenced for trafficking than for white drug offenders sentenced for other drug-related offenses. Prison sentences were shorter for white drug offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, a one-point increase in the percentage of Republican voters increased prison sentences for white drug offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for black drug offenders. Among blacks, results indicate that prison sentences were 10.71 days longer for male drug offenders than for female drug offenders. Age had a significant, curvilinear effect on sentence length for black drug offenders. Prison sentences were shorter for black drug offenders with at least a high school diploma.

Regarding legal factors, prison sentences were longer for black drug offenders with greater criminal history and offense severity scores than for black drug offenders



with lower criminal history and offense severity scores. Prison sentences were 9.30 days longer for black drug offenders sentenced for trafficking than black drug offenders sentenced for other drug-related offenses. Black powder cocaine offenders received prison sentences that were 2.04 days shorter than prison sentences received by black crack cocaine offenders. Prison sentences were shorter for black drug offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, a one-point increase in the percentage of Republican voters increased prison sentences for black drug offenders. Prison sentences were greater for black drug offenders sentenced in states with greater percentages of blacks.

Model 3 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for Hispanic drug offenders. Among Hispanic drug offenders, results indicate that prison sentences were 8.67 days longer for males than for females. Age had a significant, curvilinear effect on sentence length for Hispanic drug offenders. Prison sentences were for Hispanic drug offenders with at least a high school diploma than for Hispanic drug offenders with less than a high school diploma.

Regarding legal factors, prison sentences were longer for Hispanic drug offenders with greater criminal history and offense severity scores than for Hispanic drug offenders with lower criminal history and offense severity scores. Hispanic drug offenders sentenced for trafficking received prison sentences that were 8.40 days longer than prison sentences received by Hispanic drug offenders sentenced for other drug-related offenses. Prison sentences were shorter for Hispanic drug offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, a one-point



increase in the percentage of Republican voters in a state increased prison sentences for Hispanic drug offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on the determination of sentence length for white, black, and Hispanic drug offenders, I calculated z-scores comparing whites vs. blacks and whites vs. Hispanics for the years 2005-2009. Based on the z-scores for the white-black comparison, five factors had significant interactions with race. Age had a stronger impact on sentence length for black drug offenders than for white drug offenders. Criminal history and offense severity scores had stronger impacts on sentence length for white drug offenders than for black drug offenders. The type of drug had a stronger impact on sentence length for black drug offenders than for white drug offenders. Being released on bail/bond had a stronger impact on sentence length for white drug offenders than for black drug offenders. White-Hispanic comparisons indicate that three factors had significant interactions with ethnicity. Criminal history and offense severity scores had stronger impacts on sentence length for white drug offenders than for Hispanic drug offenders. The offense of trafficking had a stronger impact on white drug offenders than for Hispanic drug offenders.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Crack and Table 12

Powder Cocaine Offenses before the Fair Sentencing Act 2010, by Race/Ethnicity, 2005-2009

	White o (N =	White offenders $(N = 6,476)$	Black (N =	Black offenders $(N = 28,964)$		Hispanic (N =	Hispanic Offenders $(N = 16,988)$	
	þ	SE	p	SE	Z	þ	SE	Z
Extralegal Variables								
Male	0.326	0.030 ***	0.357	0.015 ***	-0.93	0.289	0.017 ***	1.07
Age	0.005	0.005 0.006	0.021	0.003 ***	2.39 *	0.011	0.003 ***	-0.89
Age_Squared	-0.0001	0.0001	-0.0003	0.00004 ***	1.83	-0.0001	0.00004 ***	0.00
	-0.027	0.024	-0.027	0.008 ***	0.00	-0.046	0.010 ***	0.73
64								
Legal Variables								
Criminal history score	0.139	0.007 ***	0.107	0.002 ***	4.40 *	0.117	0.004 ***	2.39 *
Offense severity score	0.102	0.002 ***	0.090	0.001 ***	5.13 *	0.094	0.001 ***	3.57 *
Trafficking offense	0.322	*** 890.0	0.310	0.246 ***	0.12	0.280	0.038 ***	6.95 *
Powder Cocaine	-0.001	0.026	-0.068	0.009 ***	2.44 *	-0.006	0.016	0.16
Presentence Status ^a								
Out on Bail/Bond	-0.465	0.030 ***	-0.307	0.011 ***	4.95 *	-0.466	0.016 ***	0.03
ROR	-0.600	0.048 ***	-0.499	0.024 ***	1.88	-0.619	0.044 ***	0.14
Guilty plea	-0.285	0.062 ***	-0.305	0.015 ***	0.31	-0.280	0.024 ***	-0.08

Contextual Variables								
Unemployment rate	0.001	0.043	-0.003	0.015	60.0	-0.035	0.019	0.77
Percent voted Republican	0.015	0.005 **	0.010	0.002 ***	0.93	0.007	0.002 ***	1.48
Republican governor	-0.023	0.086	0.024	0.041	-0.49	0.040	0.037	-0.67
Percent black	-0.001	900.0	0.002	0.003 ***	-0.45	0.002	0.002	-0.48
Percent Hispanic	-0.002	0.005	-0.002	0.002	-0.74	-0.0004	0.0021	-3.58 *
Violent crime rate	0.0004	0.0004	0.0009	0.0002	-1.25	0.0002	0.0002	5.00 *
Intercept	-0.147 0.36	0.361	0.456	0.169 **	1.51	0.715	0.167 ***	-2.17 *
-2 Log-likelihood Model Chi-Square	16752.496 5744.210***	96+**	53282.574 38097.170***	574 70***		30242.626 20691.090***	.626 90***	

U Note. Reference categories are: (a) In custody. $9*_{p<0.05}*_{p<0.01}*_{**p<0.001}$



Table 12 (Continued)

Table 13 describes the results of hierarchical linear regression analyses for the three racial/ethnic categories of drug offenders to examine whether the effects of extralegal, legal, and contextual factors on the determination of sentence length vary by race/ethnicity for the years 2011-2015. Model 1 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for white drug offenders. Among whites, results indicate that prison sentences were 7.05 days longer for male drug offenders than for female drug offenders. Prison sentences were shorter for white drug offenders with at least high school diploma than for white drug offenders with less than a high school diploma. Regarding legal factors, prison sentences were longer for white drug offenders with greater criminal history and offense severity scores than for white drug offenders with lower criminal history and offense severity scores. Prison sentences were shorter for white drug offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, a one-point increase in the percentage of Republican voters increased prison sentences for white drug offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for black drug offenders. Among black drug offenders, results indicate that prison sentences were 15.93 days longer for males than for females. Age had a significant, curvilinear effect on sentence length for black drug offenders. Prison sentences were shorter for black drug offenders with at least a high school diploma than for black drug offenders with less than a high school diploma.

Regarding legal factors, prison sentences were longer for black drug offenders with greater criminal history and offense severity scores than for black drug offenders with lower criminal history and offense severity scores. Prison sentences were 4.20 days



longer for black drug offenders sentenced for trafficking than black drug offenders sentenced for other drug-related offenders. Black drug offenders released on bail/bond or ROR and those who pled guilty received shorter sentences. Regarding contextual factors, a one-point increase in the percentage of Republican voters in a state increased prison sentences for black drug offenders. Prison sentences were longer for black drug offenders in states with a Republican governor than for black drug offenders in states without a Republican governor.

Model 3 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for Hispanic drug offenders. Among Hispanics, results indicate that male drug offenders received prison sentences that were 7.86 days longer than prison sentences received by female drug offenders. Age had a significant, curvilinear effect on sentence length for Hispanic drug offenders. Prison sentences were shorter for Hispanic drug offenders with at least high school diploma than for Hispanic drug offenders with less than a high school diploma.

Regarding legal factors, prison sentences were longer for Hispanic drug offenders with greater criminal history and offense severity scores than for Hispanic drug offenders with lower criminal history and offense severity scores. Hispanic drug offenders sentenced for trafficking received prison sentences that were 4.68 days longer than prison sentences received by Hispanic drug offenders sentenced for other drug-related offenses. Hispanic powder cocaine offenders received prison sentences that were shorter than prison sentences received by Hispanic crack cocaine offenders. Hispanic drug offenders who were released on bail/bond or ROR and Hispanic drug offenders who pled guilty prior to sentencing received shorter sentences. Regarding contextual factors, a one-point



increase in the percentage of Republican voters increased in prison sentences for Hispanic drug offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on the determination of sentence length for white, black, and Hispanic drug offenders, I calculated z-scores comparing whites vs. blacks and whites vs. Hispanics for the years 2011-2015. Based on the z-scores for the white-black comparison, six factors had significant interactions with race. Being male had a stronger impact on sentence length for black drug offenders than for white drug offenders.

Criminal history and offense severity scores had stronger impacts on sentence length for white drug offender than for black drug offenders. Being released on bail/bond or ROR had stronger impacts on sentence length for white drug offenders than for black drug offenders.

White-Hispanic comparison revealed that five factors had significant interactions with ethnicity. Having at least high school diploma had a stronger impact on sentence length for white drug offenders than for Hispanic drug offenders. Criminal history and offense severity scores had stronger impacts on sentence length for white drug offenders than for Hispanic drug offenders. The type of drug had a stronger impact on sentence length for Hispanic drug offenders than for white drug offenders. Being released on bail/bond had a stronger impact on sentence length for white drug offenders than for Hispanic drug offenders.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Crack and Table 13

Powder Cocaine Offenses before the Fair Sentencing Act 2010, by Race/Ethnicity, 2011-2015

	White offenders $(N = 3,371)$	Black offenders $(N = 17,806)$		Hispanic Offenders $(N = 12,273)$	
	b SE	b SE	Z	b SE	Z
Extralegal Variables					
Male	0.235 0.046 ***	0.531 0.025 ***	-5.65 *	0.262 0.021 ***	-0.53
Age	0.010 0.095	0.024 0.004 ***	-0.15	0.016 0.004 ***	-0.06
Age_Squared	-0.0002 0.0001	-0.0003 0.0001 ***	0.71	-0.0002 0.0005 ***	-0.78
High school or greater	-0.102 0.039 **	-0.042 0.012 ***	3.45	-0.047 0.012 ***	-3.17 *
10					
6 Legal Variables					
Criminal history score	0.153 0.012 ***		3.71 *	0.116 0.005 ***	2.85 *
Offense severity score	0.112 0.003 ***	0.089 0.001 ***	7.28 *		6.33 *
Trafficking offense	0.160 0.120	0.140 0.042 ***	0.16	0.136 0.053 *	0.18
Powder Cocaine	0.091 0.048	-0.018 0.013	2.19 *	-0.056 0.023 *	2.78 *
Presentence Status ^a					
Out on Bail/Bond	-0.699 0.047 ***	-0.500 0.017 ***	-24.03 *	-0.521 0.018 ***	-2.94 *
ROR	-0.853 0.081 ***	-0.601 0.036 ***	-2.84 *	-0.721 0.053 ***	-1.36
Guilty plea	-0.351 0.104 ***	-0.326 0.027 ***	-0.23	-0.336 0.035 ***	0.14



Contextual variables					
Unemployment rate	0.013 0.026		0.21		09.0
Percent voted Republican	0.010 0.004 **		0.56		1.12
Republican governor	0.041 0.084	0.086 0.004 *	-1.67	0.077 0.050	-0.43
Percent black	0.002 0.005		-0.56		-0.19
Percent Hispanic	-0.002 0.004	0.000002 0.002	-0.45		0.08
Violent crime rate	-0.001 0.0004	0.00003 0.0002	-1.79		-0.25
Intercept	-0.075 0.375	0.382 0.176 **	-1.10	0.808 0.194 ***	2.09 *
-2 Log-likelihood	9580.792	39583.652		26824.306	
Model Chi-Square	2766.160***	18996.440***		13963.950***	

Note. Reference categories are: (a) In custody. $^2_{p<0.05}*^p<0.01$ ** $^p<0.001$

Models by Drug Type for the Years 2005-2009 and 2011-2015. Table 14 describes the results of hierarchical linear regression analyses of the two drug categories of drug offenders to examine whether the influence of extralegal, legal, and contextual factors on the determination of sentence length vary by drug type for the years 2005-2009. Model 1 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for crack cocaine offenders. Among crack cocaine offenders, results indicate that blacks received prison sentences that were 3.33 days longer than prison sentences received by whites. Hispanics received prison sentences that were 1.89 days longer than prison sentences received by whites. Prison sentences were 9.96 days longer for males than for females. Age had a significant, curvilinear effect on sentence length for crack cocaine offenders. Prison sentences were shorter for crack cocaine offenders with at least a high school diploma than for crack cocaine offenders with less than a high school diploma.

Regarding legal factors, prison sentences were longer for crack cocaine offenders with greater criminal history and offense severity scores than for crack cocaine offenders with lower criminal history and offense severity scores. Prison sentences were 10.41 days longer for crack cocaine offenders sentenced for trafficking than crack cocaine offenders sentenced for other drug-related offenses. Crack cocaine offenders who were released on bail/bond or ROR and those who pled guilty received shorter sentences. Regarding contextual factors, a one-point increase in the percentage of Republican voters increased sentence length for crack cocaine offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the determination of length for powder cocaine offenders. Among powder cocaine offenders,



results indicate that blacks received prison sentences that were 2.70 days longer than prison sentences received by whites. Hispanics received prison sentences that were 2.49 days longer than prison sentences received by whites. Prison sentences were 9.72 days longer for males for females. Age had a significant, curvilinear effect on sentence length for powder cocaine offenders. Prison sentences were shorter for powder cocaine offenders with at least a high school diploma than for powder cocaine offenders with less than a high diploma.

Regarding legal factors, prison sentences were longer for powder cocaine offenders with greater criminal history and offense severity scores than for powder cocaine offenders with lower criminal history and offense severity scores. Prison sentences were 8.37 days longer for powder cocaine offenders sentenced for trafficking than powder cocaine offenders sentenced for other drug-related offenses. Powder cocaine offenders who were released on bail/bond or ROR and those who pled guilty received shorter sentences. Regarding contextual factors, a one-point increase in the percentage of Republican voters increased sentence length for powder cocaine offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on crack and powder cocaine offenders for the years 2005-2009, I calculated z-scores for crack cocaine vs. powder cocaine. Based on the z-scores, five factors had significant interactions with drug type. The results indicate that age squared had a stronger impact on the determination of sentence length for crack cocaine offenders than for powder cocaine offenders. Criminal history and offense severity scores had greater impacts on the determination of sentence length for powder cocaine offenders than for crack cocaine offenders. Being released on ROR had a stronger impact on



sentence length for powder cocaine offenders than for crack cocaine offenders. Pleading guilty had a greater impact on sentence length for crack cocaine offenders than for powder cocaine offenders.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Crack and Table 14

Powder Cocaine Offenses before the Fair Sentencing Act 2010, by Drug Type, 2005-2009

	Z			1.02	-0.80	0.37	0.80	-18.55 *	0.82		-2.94 *	-4.26 *	1.68		1.58	-3.55 *
ıders				* * *	* * *	* * *	* * *	* * *	* * *		* * *	* * *	* * *		* * *	* * *
Powder cocaine offenders $(N = 26,935)$	SE			0.014	0.013	0.015	0.003	0.00003	0.003		0.003	0.001	0.030		0.012	0.026
Powder cc (N	q			0.090	0.083	0.324	0.013	-0.0002	-0.035		0.118	0.093	0.279		-0.386	-0.617
lers				* * *	* *	* * *	* * *	* * *	* * *		* * *	* * *	* * *		* * *	* * *
Crack cocaine offenders $(N = 25,493)$	SE			0.015	0.021	0.016	0.003	0.00004	0.008		0.002	0.001	0.027		0.013	0.027
Crack coo (N =	q			0.111	0.063	0.332	0.017	-0.0003	-0.028		0.109	0.087	0.347		-0.358	-0.484
		Extralegal Variables	Race/Ethnicity ^a	Black	Hispanic	Male	Age	Age squared	High school or greater	Legal Variables	Criminal history score	Offense severity score	Trafficking offense	Presentence status ^b	Out on bail/bond	ROR

Table 14 (Continued)							
Guilty plea	-0.297	0.018	* * *	-0.288	0.019	* * *	22.33 *
Contextual Variables							
Unemployment rate	-0.002	0.024		-0.006	0.027		0.11
Percentage voted Republican	0.012	0.003	* * *	0.013	0.003	* * *	-0.24
Republican governor	-0.015	0.049		-0.014	0.054		-0.01
Percentage black	0.002	0.003		0.002	0.004		0.00
Percentage Hispanic	-0.0003	0.003		0.001	0.003		-0.31
Violent crime rate	0.0002	0.0002		0.0001	0.0002		0.35
175 Intercept	0.330	0.198		0.042	0.215		66.0
-2 Log-likelihood	48978.754	.754		53403.900	.900		
Model Cill-Square	C.CCO12	8		0.007	8		

Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001

Table 15 describes the results of hierarchical linear regression analyses of the two drug categories of drug offenders to examine whether the influence of extralegal, legal, and contextual factors on the determination of sentence length vary by drug type for the years 2011-2015. Model 1 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for crack cocaine offenders. Among crack cocaine offenders, results indicate that blacks received prison sentences that were 4.05 days longer than prison sentences received by whites. Hispanics received prison sentences that were 3.87 days longer than prison sentences received by whites. Prison sentences were 13.17 days longer for males than for females. Age had a significant, curvilinear effect on sentence length for crack cocaine offenders.

Regarding legal factors, prison sentences were longer for crack cocaine offenders with greater criminal history and offense severity scores than for crack cocaine offenders with lower criminal history and offense severity scores. The offense of trafficking was not found to have a significant influence on the incarceration decision for crack cocaine offenders. Crack cocaine offenders who were released on bail/bond or ROR and those who pled guilty received shorter sentences. Regarding contextual factors, a one-point increase in the percentage of Republican voters increased sentence length for crack cocaine offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the determination of length for powder cocaine offenders. Among powder cocaine offenders, results indicate that blacks received prison sentences that were 3.03 days longer than prison sentences received by whites. Hispanics received prison sentences that were 2.04 days longer than prison sentences received by whites. Prison sentences were 9.27 days



longer for males than for females. Age had a significant, curvilinear effect on sentence length for powder cocaine offenders. Prison sentences were shorter for powder cocaine offenders with at least a high school diploma than for powder cocaine offenders with less than a high school diploma.

Regarding legal factors, prison sentences were longer for powder cocaine offenders with greater criminal history and offense severity scores than for powder cocaine offenders with lower criminal history and offense severity scores. Prison sentences were 4.83 days longer for powder cocaine offenders sentenced for trafficking than powder cocaine offenders sentenced for other drug-related offenses. Powder cocaine offenders who were released on bail/bond or ROR and those who pled guilty received shorter sentences. Regarding contextual factors, a one-point increase in the percentage of Republican voters increased sentence length for powder cocaine offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on crack and powder cocaine offenders for the years 2011-2015, I calculated z-scores for crack cocaine vs. powder cocaine. Based on the z-scores, six factors had significant interactions with drug type. The results indicate that being male had a stronger impact on sentence length for crack cocaine offenders than for powder cocaine offenders. Having at least a high school diploma had a stronger impact on sentence length for powder cocaine offenders than for crack cocaine offenders.

Offense severity score had a stronger impact on sentence length for powder cocaine offenders than for crack cocaine offenders. Being released on bail/bond had a stronger impact on sentence length for crack cocaine offenders while being released on ROR had a stronger impact sentence length for powder cocaine offenders. The percentage of



Republican voters had a stronger impact on sentence length for crack cocaine offenders than for powder cocaine offenders.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Crack and Table 15

Powder Cocaine Offenses before the Fair Sentencing Act 2010, by Drug Type, 2011-2015

	Z			0.93	1.45	* 4.06	0.00	0.00	2.42 *		-0.97	* -5.67	0.67		-3.50 *	2.29 *
offenders 44)	SE			0.019 ***	0.018 ***	0.018 ***	0.003 ***	0.00004 ***	0.011 ***		*** 900.0	0.001 ***	0.040 ***		0.015 ***	0.034 ***
Powder cocaine offenders $(N = 22,844)$	þ			0.101	0.068	0.309	0.0196	-0.0003	-0.068		0.118	0.095	0.161		-0.508	-0.732
Crack cocaine offenders $(N = 13,360)$	SE			.135 0.031 ***	0.129 0.038 ***	0.439 0.027 ***	0.020 0.005 ***	-0.0003 0.0001 ***	-0.025 0.014		.1111 0.004 ***	0.087 0.001 ***	0.093 0.053		-0.601 0.022 ***	-0.603 0.045 ***
Cracl	p			0.	0.	0.	0.0	0.0-	-0.		0.	0.	0.0		-0-	-0-
		Extralegal Variables	Race/Ethnicity ^a		Hispanic	Male	Age	Age squared	High school or greater	Legal Variables	Criminal history score	Offense severity score	Trafficking offense	Presentence status ^b	Out on bail/bond	ROR
				1	79											

Guilty plea	-0.304	0.036	* * *	-0.342	0.027	* * *	0.84
Contextual Variables Unemployment rate	0.005	0.015		0.004	0.014		0.05
Percent voted Republican	0.007	0.002	* * *	900.0	0.002	*	3.53 *
Republican governor	0.093	0.052		0.069	0.046		0.35
Percent black	0.004	0.003		0.004	0.003		0.00
Percent Hispanic	0.0001	0.003		-0.002	0.002		0.58
Violent crime rate	0.0001	0.0002	•	-0.00000003	0.0002		0.36
Intercept	0.426	0.205	*	0.413	0.174	*	0.05
-2 Log-likelihood Model Chi-Square	28765.200 12693.280***	***(00		48413.990 22713.010***	*		

Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001

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CHAPTER VI

SUPPLEMENTAL ANALYSES OF SENTENCES FOR COCAINE AND METHAMPHETAMINE OFFENSES

Introduction

In addition to the analyses reported in Chapter 5, which compared sentences for cocaine offenses before and after the Fair Sentencing Act, I compared sentences for cocaine and methamphetamine offenses from the years 2005-2015. The enduring consequences of mass incarceration and racial disparity in sentencing associated with the "War on Drugs" makes it important to conduct empirical research exploring the relationship between race/ethnicity and sentences for drug offenses involving cocaine and methamphetamine. The purpose of the following analysis is to examine whether there was differential sentences for cocaine and methamphetamine offenders for the years 2005-2015. Two research questions will guide supplemental analyses. First, to what extent does the influence the effects of extralegal, legal, and contextual factors on incarceration decisions and the determination of sentence length differ by race/ethnicity for cocaine and methamphetamine offenses from the years 2005-2015? Second, to what extent does the influence the effects of extralegal, legal, and contextual factors on incarceration decisions and the determination of sentence length differ by drug type?



Hypotheses

I will test the effects of extralegal, legal, and contextual factors on sentencing decisions for offenders sentenced for cocaine and methamphetamine offenses during the years 2005-2015.

Extralegal (i.e., offender-related) factors

- 1. Extralegal factors (e.g., race/ethnicity, sex, age, and education) are also expected to influence sentencing decisions for cocaine and methamphetamine offenders.
 - 1a. It is expected that black drug offenders and Hispanic drug offenders sentenced for cocaine and methamphetamine offenses will receive harsher sentences than white drug offenders sentenced for cocaine and methamphetamine offenses. Specifically, black and Hispanic cocaine offenders sentenced will receive harsher sentences than white cocaine offenders. White methamphetamine offenders are expected to receive harsher sentences than black and Hispanic methamphetamine offenders.
 - 1b. It is expected that male drug offenders sentenced for cocaine and methamphetamine offenses will receive harsher sentences than female drug offenders sentenced for cocaine and methamphetamine offenses.
 - 1c. It is expected that age will have a curvilinear effect on sentence severity, with cocaine and methamphetamine offenders who fall in the middle of the age distribution receiving harsher sentences than younger and older cocaine and methamphetamine offenders.



1d. It is expected that less educated drug offenders sentenced for cocaine and methamphetamine offenses will receive harsher sentences than more educated drug offenders sentenced for cocaine and methamphetamine offenses.

Legally-relevant (i.e., offense-related) factors

- 2. Legally-relevant factors are expected to be the strongest predictors of sentences for cocaine and methamphetamine offenses.
 - 2a. It is expected that cocaine and methamphetamine offenders with higher criminal history scores will receive harsher sentences than cocaine and methamphetamine offenders with lower criminal history scores.
 - 2b. It is expected that cocaine and methamphetamine offenders with higher offense severity scores will receive harsher sentences than cocaine and methamphetamine offenders with lower offense severity scores.
 - 2c. It is expected that the offense type will affect sentencing decisions, with offenders sentenced for the transportation, manufacturing, sale, and importation cocaine or methamphetamine receiving harsher sentences than offenders sentenced for other drug-related offenses (e.g., simple possession and communication facilities).
 - 2d. It is expected that drug offenders sentenced for cocaine-related offenses will receive harsher sentences than drug offenders sentenced for methamphetamine-related offenses.
 - 2e. It is expected that cocaine and methamphetamine offenders detained prior to sentencing will receive harsher sentences than cocaine and



methamphetamine offenders released (e.g., bail/bond or ROR) prior to sentencing.

2f. It is expected that cocaine and methamphetamine offenders who went to trial will receive harsher sentences than cocaine and methamphetamine offenders who pled guilty.

Contextual-level factors

- 3. The economic, political, and social contexts of the state are expected to influence sentences for drug offenders sentenced for cocaine and methamphetamine offenses.
 - 3a. Regarding the economic context, cocaine and methamphetamine offenders sentenced in states with higher unemployment rates are expected to receive more severe sentences.
 - 3b. Regarding the political context, cocaine and methamphetamine offenders sentenced in states with a greater percentage of Republican voters will receive harsher sentences.
 - 3c. It is expected that cocaine and methamphetamine offenders sentenced in states with a Republican governor will receive harsher sentences.
 - 3d. Regarding the social context, cocaine and methamphetamine offenders sentenced in states with a higher percentage of minorities (blacks and Hispanics) will receive harsher sentences.
 - 3e. Cocaine and methamphetamine offenders sentenced in states with higher rates of violent crime are expected to receive harsher sentences.



Data and Sample

The data for this study consist of federal drug sentencing information from the Monitoring of the Federal Criminal Sentences program by USSC for the years 2005-2015. Federal sentencing data collected by the USSC is gathered by federal district courts. The chief judge of each district is required to provide information (e.g., sentencing decision, offense characteristics, and offender characteristics) to the USSC 30 days after a judgement has been rendered in a federal criminal case. The sample for the supplemental analyses contains cases involving those convicted of cocaine (both powder and crack) and methamphetamine offenses. This dataset contains 151,515 drug-related cases, with 99,545 (66%) offenders convicted of cocaine offenses and 51,970 (34%) offenders convicted of methamphetamine offenses were included. The sample will also include contextual information from the United States Census Bureau and the Uniform Crime Report (UCR) described in Chapter 4.

Measures

There were two dependent variables analyzed in the supplemental analyses, the decision to incarcerate and the determination of sentence length. The independent variables used in the supplemental analyses include individual- (extralegal and legal) and contextual-level variables. All of these variables were described in Chapter 4, with the exception of *Drug type*. *Drug type* measures the drug involved in the case. This variable is a dichotomous variable with cocaine coded '1' and methamphetamine as '0'.



Overview of Analyses

The analyses proceeded in three stages. First, I conducted descriptive analyses of federal cocaine and methamphetamine offenses for the years 2005-2015. Second, I calculated a correlation matrix to summarize the strength and direction of the association between variables. Third, I conducted a series of multilevel regression models. First, I tested for variations in extralegal, legal, and contextual factors on the decision to incarcerate and the determination of sentence length. Hierarchical logistic regression was used to analyze the decision to incarcerate and hierarchical linear regression was used to analyze the determination of sentence length for the years 2005-2015. For both the decision to incarcerate and the determination of sentence length, Model 1 estimated the effects of extralegal factors, Model 2 estimated the effects of both extralegal and legal factors, Model 3 estimated the effects of contextual factors, and Model 4 estimated the effects of extralegal, legal, and contextual factors on incarceration decision and the determination of sentence length.

Second, I estimated separate models for each racial/ethnic group to determine whether the effects of extralegal, legal, and contextual factors on incarceration decision and the determination of sentence length vary by race/ethnicity. I also estimated separate models for cocaine and methamphetamine offenses to determine whether the effects of extralegal, legal, and contextual factors on incarceration decision and the determination of sentence length vary by drug type.



Results

Description of Sentencing Data for the Years 2005-2015

Table 16 describes the 151,515 cocaine and methamphetamine cases sentenced in federal United States courts for the years 2005-2015. The majority (66%) of cases during these years involved cocaine offenses. Incarceration was imposed in majority (97%) of cases and the average sentence length, regardless of drug type, was approximately 96 months (i.e., 8 years). When examining the average sentence length by drug type, cocaine offenders received an average sentence length of approximately 97 months and methamphetamine offenders received an average sentence length of approximately 95 months.

Regarding extralegal factors, both cocaine and methamphetamine offenders were more likely to be male, about 34 years old, and have at least a high school diploma. Cocaine offenders were more likely to be black while methamphetamine offenders were more likely to be either white or Hispanic. Regarding legal factors, cocaine and methamphetamine offenders had similar average criminal history scores, 2.73 and 2.39, respectively. Cocaine and methamphetamine offenders also had similar offense severity scores (26.69 and 28.32, respectively). The majority of offenders, regardless of drug type, were sentenced for the offense of trafficking. The majority of offenders remained in custody prior to sentencing and pled guilty to the offense.

Regarding contextual factors, there were differences for cocaine and methamphetamine offenders. The average state unemployment rate was slightly for greater for the cocaine sample than the methamphetamine sample. The percentage of Republican voters in a state was greater for the methamphetamine sample than the



cocaine sample. Regardless of drug type, majority of states have a Republican governor. The percentage of blacks in a state was greater for the cocaine sample while the percentage of Hispanics in a state was greater for the methamphetamine sample. The average state violent crime rate was greater for the cocaine sample than the methamphetamine sample.



Descriptive Statistics for Individual and State-level Variables for Federal Cocaine and Methamphetamine Offenses Table 16

for the Years 2005-2015 (N = 151,515)

M Dependent Variables						
Dependent Variables	Mean	SD	Range	Mean	SD	Range
Incarceration 0	0.97	0.16	0.00-1.00	86:0	0.13	0.00-1.00
Sentence Length (in months) ^a 90	96.63	79.36	0.03-960.00	95.23	69.61	0.03-600.00
Independent Variables Extralegal variables						
	0.12	0.33	0.00-1.00	0.49	0.50	0.00-1.00
	0.53	0.50	0.00-1.00	0.03	0.18	0.00-1.00
Hispanic 0	0.34	0.48	0.00-1.00	0.48	0.50	0.00 - 1.00
	06.0	0.30	0.00-1.00	0.81	0.39	0.00 - 1.00
Age (in years) 3.	33.99	9.33	16.00-89.00	34.80	9.76	17.00-80.00
	1242.19	723.48	256.00-7921.00	1306.13	750.64	289.00-6400.00
High school or greater 0	0.54	0.50	0.00-1.00	0.50	0.50	0.00-1.00

Legal Variables

c 9	0		0	0	0			0	6	0	∞	0	.58
1.00-6.00 1.00-43.00	0.00-1.00		0.00-1.00	0.00-1.00	0.00-1.00			3.35-11.30	6.91-67.69	0.00-1.00	0.52-52.38	1.13-45.60	122.21-133.58
1.72 5.89	0.17		0.37	0.34	0.17			1.53	9.81	0.33	7.63	14.78	124.63
2.39	0.97		0.84	0.13	0.03			7.08	49.55	0.61	09.6	18.94	419.94
1.00-6.00 2.00-43.00	0.00-1.00		0.00-1.00	0.00-1.00	0.00-1.00			3.35-11.30	6.91-67.69	0.00-1.00	0.52-52.38	1.13-45.60	122.1-1333.58
1.87	0.16		0.40	0.37	0.18			1.22	9.42	0.39	8.58	12.35	152.47
2.73 26.69	0.97		0.81	0.16	0.03			8.18	47.33	0.55	14.59	15.12	442.87
Criminal history score Offense severity score	Trafficking offense	Presentence status	In custody	Out on bail/bond	ROR	Case disposition	Contextual Variables	State unemployment rate	Percent voted Republican	Republican governor	5 Percent black	Percent Hispanic	Violent crime rate

 a Based on 95,867 incarcerated cocaine offenders and 50,727 incarcerated methamphetamine offenders in the sentence length data, for years 2005-2015, respectively (N = 146,594)

In sum, the descriptive analyses revealed that extralegal and legal factors were similar for cocaine and methamphetamine offenders. For example, both cocaine and methamphetamine offenders were more likely to be male and have at least a high school diploma. One difference was cocaine offenders were more likely to be black while methamphetamine offenders were more likely to be white or Hispanic. Regarding legal factors, cocaine and methamphetamine offender had similar criminal history and offense severity scores and were more likely to be sentenced for trafficking. There were some differences in contextual factors by drug type. For example, cocaine offenders were more likely to be sentenced in states with a slightly greater black population while methamphetamine offenders were more likely to be sentenced in states with a slightly greater Hispanic population. Additionally, some of the contextual factors were found to be related. For example, a violent crime rate was positively related to the percentage of Republican voters and the percentage of blacks in a state.



Decision to Incarcerate

The results presented in Table 17 describe the effects of extralegal, legal, and contextual factors on the decision to incarcerate for drug offenders sentenced for the years 2005-2015. Model 1 describes the relationship between extralegal factors and the decision to incarcerate. Results indicate that all extralegal factors significantly influenced the decision to incarcerate. Black drug offenders were 1.447 times more likely than white drug offenders to be incarcerated. Hispanic drug offenders were 2.287 times more likely than white drug offenders to be incarcerated. The likelihood of incarceration was greater for male drug offenders than female drug offenders. Age was also significant, indicating that the likelihood of incarceration increases with age and, at some point, decreases as drug offenders age. The likelihood of incarceration was significantly lower for drug offenders with at least a high school diploma.

Model 2 describes the effects of extralegal and legal factors on the decision to incarcerate. Results indicate that all extralegal and legal factors significantly influenced the decision to incarcerate. Regarding extralegal factors, the effects of being black or Hispanic remained significant; however, their effects are reduced. The decrease in effect size of being black or Hispanic on incarceration decision may be attributed to the addition of legal factors, suggesting that the racial differences in incarceration decision may be the result of black and Hispanic drug offenders having more extensive criminal histories and having higher offense severity scores than white drug offenders. The effect size of gender also decreased, with male drug offenders being 2.023 times more likely to be incarcerated than female drug offenders. Once again, age has a curvilinear effect on incarceration



decision and drug offenders with at least a high school diploma were less likely to be incarcerated than drug offenders with less than a high school diploma.

Regarding legal factors, the likelihood of incarceration increased with increases in criminal history and offense severity scores. Drug offenders sentenced for the offense of trafficking cocaine or methamphetamine were 2.981 times more likely to be incarcerated than drug offenders sentenced for other drug-related offenses (e.g., simple possession and communication facilities). As for drug type, the likelihood of incarceration was lower for cocaine offenses than for methamphetamine offenses. Drug offenders who were released on bail/bond or ROR and those who pled guilty to their offense were less likely to be incarcerated.

Model 3 describes the effects of extralegal, legal, and contextual factors on the decision incarcerate. To begin the hierarchical logistic regression analyses, I estimated random variance components for the decision to incarcerate. All of the variance components were significant. Therefore, all of the coefficients for extralegal and legal factors were treated as random (i.e., allowed to vary) in the subsequent models (Britt, 2000; Ulmer & Johnson, 2004). In other words, I allowed the effects of both extralegal and legal factors vary across states³. However, the random-effects model (i.e., intercept varies across states) for the decision to incarcerate provides a better fit model than the

³ First, I conducted random-coefficient models to determine the random effects of the extralegal and legal factors and fixed effects of the contextual-level factors on the decision to incarcerate. Second, I conducted random-effects models to determine the fixed effects of extralegal, legal and contextual factors on the decision to incarcerate. In these models, the intercept is the only item allowed to vary across states. Comparisons of chi-square values for both the random-coefficient and random-effects models, it was revealed that the random-effect models were a better fit in explaining the decision to incarcerate.



random-coefficient model (i.e., factors vary across states; see Britt, 2000). Therefore, Model 3 displays the results for the random-effects model.

Results indicate that black and Hispanic drug offenders were more likely to be incarcerated than white drug offenders. Male drug offenders were 2.131 times more likely to be incarcerated than female drug offenders. Age had a significant, curvilinear effect on the incarceration decision. Drug offenders with at least a high school diploma were less likely to be incarcerated than drug offenders with less than a high school diploma. Regarding legal factors, drug offenders with greater criminal history and offense severity scores were 1.504 and 1.198, respectively, to be incarcerated. Drug offenders sentenced for the offense of trafficking were 2.898 times more likely than drug offenders sentenced for other drug-related offenses to be incarcerated. The type of drug for which a drug offender was sentenced no longer had a significant influence on incarceration decision. Drug offenders who were released on bail/bond or ROR and those who pled guilty to their offense were less likely to be incarcerated. Regarding contextual factors, none of the contextual factors significantly influenced the decision to incarcerate.



Table 17 Hierarchical Logistic Regression Analyses Predicting Incarceration for Federal Cocaine and Methamphetamine Offenses for the Years 2005-2015

		Model	1		Model	2		Model	3
	Coefficient	SE	OR	Coefficient	SE	OR	Coefficient	SE	OR
Extralegal Variables									
Race/Ethnicity ^a									
Black	0.339	0.042	1.447 ***	0.250	0.055	1.283 ***	0.222	0.058	1.248 ***
Hispanic	0.827	0.047	2.287 ***	0.397	0.056	1.488 ***	0.454	0.061	1.574 ***
Male	1.394	0.037	4.030 ***	0.705	0.044	2.023 ***	0.756	0.045	2.131 ***
_ Age	0.088	0.009	1.092 ***	0.040	0.011	1.040 ***	0.049	0.011	1.051 ***
Age squared	-0.001	0.0001	0.999 ***	-0.001	0.0001	0.999 ***	-0.001	0.0001	0.999 ***
High school or greater	-0.509	0.039	0.601 ***	-0.276	0.046	0.759 ***	-0.298	0.046	0.742 ***
Legal Variables									
Criminal history score				0.398	0.021	1.489 ***	0.408	0.022	1.504 ***
Offense severity score				0.178	0.003	1.194 ***	0.181	0.003	1.198 ***
Trafficking Offense				1.092	0.066	2.981 ***	1.064	0.070	2.898 ***
Cocaine				-0.145	0.054	0.865 **	-0.066	0.059	0.936
Presentence status ^b									
Out on bail/bond				-2.266	0.053	0.104 ***	-2.253	0.054	0.105 ***
ROR				-2.445	0.067	0.228 ***	-2.478	0.075	0.268 ***
Guilty plea				-1.480	0.321	0.725 ***	-1.315	0.326	0.873 ***



Continued)	
Table 17 (

Contextual Variables	Unemployment rate Percent voted Republican	Republican governor Percent black	Percent Hispanic
Conte	Unem Perce	Repuk Percei	Percer

Violent crime rate

0.999 1.026 1.008 0.995 1.001 1.232

0.074 0.010 0.254 0.012 0.010 0.001

-0.136 -0.002 0.005 0.008 -0.005

-2 log likelihood 30230.440

Model Chi-Square 2379.600***

17604.134 7036.100***

18314.896 14294.500***

9 Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001

Models by Race/Ethnicity. Table 18 describes the results of the hierarchical logistic regression analyses for the three racial/ethnic categories of drug offenders to examine whether extralegal, legal, and contextual factors differentially influence the decision to incarcerate various groups of drug offenders. Model 1 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for white drug offenders. Results indicate that gender and educational level significantly influenced incarceration decisions for white drug offenders. White male drug offenders were 1.684 times more likely than white female drug offenders to be incarcerated. Age was not found to significantly influence incarceration decisions for white drug offenders. White drug offenders with at least a high school diploma were less likely to be incarcerated. Regarding legal factors, the likelihood of incarceration was greater for white drug offenders with greater criminal history and offense severity scores. White drug offenders sentenced for trafficking, distributing, and selling drugs were 2.546 times more likely than white drug offenders sentenced for other drug-related offenses (e.g., simple possession) to be incarcerated. Prison sentences were shorter for white cocaine offenders than white methamphetamine offenders. White drug offenders who were released bail/bond or ROR were less likely to be incarcerated. Pleading guilty had no significant influence on incarceration decision for white drug offenders. Regarding contextual factors, none of the factors significantly influenced the decision to incarcerate white drug offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for black offenders. Black male drug offenders were 2.547 times more likely to be incarcerated than black female drug offenders. Age had a curvilinear



effect on the decision to incarcerate black drug offenders. Educational level had no significant influence on the decision to incarcerate black drug offenders. Regarding legal factors, the likelihood of incarceration was greater for black drug offenders with greater criminal history and offense severity scores. Black drug offenders sentenced for the offense of trafficking were 3.304 times more likely than black drug offenders sentenced for other drug-related offenses (e.g., simple possession) to be incarcerated. Drug type had no significant influence on the likelihood of incarceration for black drug offenders. Black drug offenders who were released on /bond or on their own recognizance were less likely to be incarcerated. Pleading guilty had no significant influence on incarceration decisions for black drug offenders. Regarding contextual factors, state unemployment rate was the only factor to significantly influence the incarceration decision for black drug offenders. Black drug offenders were less likely to be incarcerated in states with higher unemployment rates.

Model 3 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for Hispanic drug offenders. Hispanic male drug offenders were 2.419 times more likely than Hispanic female drug offenders to be incarcerated. Age had a significant effect on incarceration decision for Hispanic drug offenders; however, the effect was not curvilinear. As Hispanic drug offenders increased in age, the likelihood of incarceration increased. Educational level had no significant influence on the decision to incarcerate for Hispanic drug offenders. Regarding legal factors, the likelihood of incarceration was greater for Hispanic drug offenders with greater criminal history and offense severity scores. Hispanic drug offenders sentenced for the offense of trafficking were 2.885 times more likely than white drug offenders sentenced for other drug-related



offenses (e.g., simple possession). Hispanic drug offenders sentenced for cocaine offenses were 1.390 times more likely than Hispanic drug offenders sentenced for methamphetamine offenses to be incarcerated. Hispanic drug offenders who were released on bail/bond or ROR and those who pled guilty were less likely to be incarcerated. None of the factors had a significant influence on the decision to incarcerate Hispanic drug offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on white, black, and Hispanic drug offenders, I calculated z-scores comparing whites vs. blacks and whites vs. Hispanics. Z-scores represent standard deviation above or below the mean (Paternoster, et al., 1998). Based on the z-scores, for the white-black comparison, five factors had significant interactions with race. Being male had a stronger impact on the decision to incarcerate black drug offenders than white drug offenders. Having at least a high school diploma had a stronger impact on the likelihood of incarceration for white drug offenders than black drug offenders. Being released on bail/bond or ROR had a stronger impact the likelihood of incarceration for black drug offenders than white drug offenders. Although not found to have statistically significant influence on incarceration decisions for either white or black drug offenders, the percentage of Hispanics in a state population had a stronger impact on incarceration decision for white drug offenders than for black drug offenders.

White-Hispanic comparison revealed that seven factors had significant interactions with ethnicity. Being male had a stronger impact on the likelihood of incarceration for Hispanic drug offenders than white drug offenders. Age had a stronger impact on incarceration decision for Hispanic drug offenders than white drug offenders.



Criminal history had a stronger impact on the incarceration decision for white drug offenders than Hispanic drug offenders. The type of drug had a stronger impact on the likelihood of incarceration for Hispanic drug offenders than white drug offenders. Being released on bail/bond or ROR and pleading guilty had a stronger impact on the incarceration decision for Hispanic drug offenders than white drug offenders.



Hierarchical Logistic Regression Analyses Predicting Incarceration for Federal Cocaine and Methamphetamine Table 18

Offenses, by Race/Ethnicity, 2005-2015

	(M	White offenders $(N = 37,608)$	s	B	Black offenders $(N = 54,801)$	S		His	Hispanic offenders (N = 59,106)	iders 5)		
	Coefficient	SE	OR	Coefficient	SE	OR	Z	Coefficient	SE	OR		Z
Extralegal Variables												
Male	0.512	0.069	1.684 ***	0.935	0.082	2.547 ***	-3.97 *	0.883	0.091	2.419	* *	-3.25 *
Age	0.022	0.017	1.023	0.040	0.020	1.041 *	-0.07	960.0	0.022	1.100	* * *	-2.66 *
Age_Squared	-0.0004	0.0002	1.000	-0.001	0.0003	** 666.0	1.67	-0.001	0.0003	0.999	* *	1.66
High school or greater	-0.376	0.078	0.687 ***	-0.146	0.079	0.864	-2.07 *	-0.292	0.087	0.747	* * *	0.72
Legal Variables												
Criminal history score	0.487	0.035	1.628 ***	0.399	0.033	1.490 ***	0.17	0.276	0.053	1.318	* *	3.32 *
Offense sevenity score	0.183	0.005	1.201 ***	0.183	0.006	1.201 ***	0.00	0.176	0.007	1.192	* * *	0.81
Trafficking offense	0.934	0.110	2.546 ***	1.195	0.116	3.304 ***	0.16	1.060	0.145	2.885	* *	69.0
Cocaine	-0.298	0.077	0.742 ***	-0.032	0.242	696.0	-1.05	0.329	0.116	1.390	*	4.51 *
Presentence Status ^a												
Out on Bail/Bond	-1.848	0.083	0.158 ***	-2.164	0.097	0.115 ***	2.48 *	-2.829	0.109	0.059	* *	7.16 *
ROR	-1.967	0.109	0.140 ***	-2.507	0.134	0.082 ***	3.12 *	-3.168	0.167	0.042	* *	6.01 *
Guilty plea	-0.282	0.403	0.755	-1.977	0.767	0.139 **	1.96	-3.185	1.066	0.041	*	2.55 *

				0.319 1.131			
				0.123 0.			
		0.924	766.0	1.021	1.007	1.007	1.000
		0.080	0.010	0.275	0.013	0.011	0.001
		-0.079	-0.003	0.021	0.007	0.007	-0.0002
Table 18 (Continued)	Contextual Variables	Unemployment rate	Percent voted Republican	Republican go vernor	Percent black	Percent Hispanic	Violent crime rate
							7

0.67 0.17 -0.03 -0.35 -0.85

0.840 0.994 1.032 1.016 0.981 1.001

0.120 0.015 0.339 0.022 0.014 0.001

-0.175 -0.006 0.032 0.016 -0.020 0.001

0.86 0.06 -0.24 -0.71 6.38 * -1.77

10.695

1.630

2.370

-0.92

2.442

1.281

0.893

0.568

-0.565 0.929

7016.553 2577.750***

5841.915 2232.350***

4590.370 1886.140***

Note. Reference categories are: (a) In custody. $^*p<0.05 *^*p<0.01 *^*p<0.001$

Table 18 (Co Contextual Variab Unemployment rate Percent voted Repui Republican governo Percent black Percent Hispanic Violent crime rate Intercept -2 Log-likelihood Model Chi-Square

Models by Drug Type. Table 19 describes the results of hierarchical logistic regression analyses for the two drug categories of drug offenders to examine whether extralegal, legal, and contextual factors differentially influence the incarceration decision of drug offenders. Model 1 describes the effects of extralegal, legal, and contextual factors on the decision to incarcerate for cocaine offenders. Results indicate that black and Hispanic cocaine offenders were 1.368 and 1.893, respectively, times more likely than white cocaine offenders to be incarcerated. Male cocaine offenders were 2.167 times more likely than female cocaine offenders to be incarcerated. The likelihood of incarceration was less for cocaine offenders with at least a high school diploma. Regarding legal factors, cocaine offenders with greater criminal history and offense severity scores were more likely to be incarcerated. Cocaine offenders sentenced for the offense of trafficking were 2.979 times more likely to be incarcerated when compared to cocaine offenders sentenced for other drug-related offenses. Cocaine offenders who were released on bail/bond or ROR and those who pled guilty were less likely to be incarcerated. Regarding contextual factors, none of the contextual factors significantly influenced incarceration decision for cocaine offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the incarceration decision for methamphetamine offenders. Results indicate that being black or Hispanic had no significant influence on the likelihood of incarceration for methamphetamine offenses. Male methamphetamine offenders were 2.104 times more likely than female methamphetamine offenders to be incarcerated. Age was found to have a significant, curvilinear effect on incarceration decision with the likelihood of incarceration increasing with age and, at some point, decreasing as methamphetamine



offenders increased in age. Methamphetamine offenders with at least a high diploma were less likely than methamphetamine offenders with less than a high school diploma to be incarcerated. Regarding legal factors, the likelihood of incarceration was greater for methamphetamine offenders with greater criminal history and offense severity scores. Methamphetamine offenders sentenced for the offense of trafficking were 2.648 times more likely to be incarcerated when compared to methamphetamine offenders sentenced for other drug-related offenses. The likelihood of incarceration was less for methamphetamine offenders who were released on bail/bond or ROR prior to sentencing. Regarding contextual factors, none of the factors significantly influenced incarceration decisions for methamphetamine offenders.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on cocaine and methamphetamine offenders, I calculated z-scores for cocaine vs. methamphetamine (Paternoster, et al., 1998). Based on the z-scores, seven factors had significant interactions with drug type. Being Hispanic had a stronger impact on the likelihood of incarceration for cocaine offenders than methamphetamine offenders. Age had a stronger impact on incarceration decision for cocaine offenders while Age squared had a stronger impact on incarceration decisions for methamphetamine offenders. Offense severity had a stronger impact on cocaine offenders than methamphetamine offenders. Being released on bail/bond had a stronger impact on the decision to incarcerate cocaine offenders while being released on ROR had a stronger impact on the decision to incarcerate methamphetamine offenders. Although violent crime rate had no significant influence on incarceration decisions for either cocaine or methamphetamine offenders, z-scores indicate that violent crime rate had a stronger



impact on incarceration decisions for cocaine offenders than methamphetamine offenders.



Hierarchical Logistic Regression Analyses Predicting Incarceration for Federal Cocaine and Methamphetamine Table 19

Offenses by Drug Type, 2005-2015

					*		*	*				*			*	*
	Z			0.67	3.52	0.29	-3.97	44.32	1.642		0.27	4.02	1.27		-38.05	-31.52
80						* * *	* * *	* * *	* * *		* * *	* * *	* * *		* * *	* * *
offenders))	OR			1.162	1.194	2.104	1.124	0.998	0.653		1.484	1.177	2.648		0.108	0.061
Methamphetamine offenders $(N = 51,970)$	SE			0.234	0.107	0.082	0.021	0.0003	0.091		0.041	900.0	0.133		0.099	0.136
Metham)	Coefficient			0.150	0.177	0.744	0.117	-0.002	-0.427		0.395	0.163	0.974		-2.225	-2.799
				* * *	* * *	* * *		*	* * *		* * *	* * *	* * *		* * *	* * *
nders 45)	OR			1.368	1.893	2.167	1.019	1.000	0.776		1.504	1.212	2.979		0.104	0.095
Cocaine offenders $(N = 99,545)$	SE			0.063	0.076	0.055	0.013	0.0002	0.054		0.026	0.004	0.082		0.065	0.091
<u>ა</u>	Coefficie nt			0.313	0.638	0.773	0.019	-0.0004	-0.253		0.408	0.192	1.091		-2.265	-2.358
		Extralegal Variables	Race/Ethnicity ^a	Black	Hispanic	Male	Age	Age squared	High school or greater	Legal Variables	Criminal history score	Offense severity score	Trafficking Offense	Presentence status ^b	Out on bail/bond	ROR

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	Table 19 (Continued)								
	Guilty plea	-1.789	0.483	0.167 ***	*	-0.487	0.456	0.614	1.964
	Contextual Variables								
	Unemployment rate	-0.066	0.077	0.936		-0.126	0.095	0.882	0.49
	Percentage voted Republican	-0.001	0.010	0.999		-0.015	0.012	0.985	0.90
	Republican governor	-0.177	0.261	0.838		0.562	0.322	1.754	1.78
	Percentage black	0.013	0.013	1.013		0.002	0.016	1.002	0.53
	Percentage Hispanic	-0.001	0.010	0.999		-0.009	0.012	0.991	-0.01
	Violent crime rate	0.0003	0.001	1.000	Ť	0.00004	0.001	1.000	2.16 *
2	Intercept	0.335	0.920	1.398		-0.492	1.108	0.612	0.57
207	-2 Log-likelihood	1	12256.592			520	5269.105		
•	Model Chi-Square	49	4910.020***			2084	2084.010***		

Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001

Determination of Sentence Length

The results presented in Table 20 describe the effects of extralegal, legal, and contextual factors on the determination of sentence length for drug offenders sentenced during the years 2005-2015. Model 1 describes the effects of extralegal factors on the determination of sentence length⁴. Black drug offenders received prison sentences that were 5.28 days longer than prison sentences received by white drug offenders. Hispanic drug offenders received prison sentences that were longer than prison sentences received by white drug offenders. Prison sentences were 18 days longer for male drug offenders than female drug offenders. Age had a curvilinear effect on the determination of sentence length, with prison sentences increasing with age and, at some point, decreasing as drug offenders age. Prison sentences were approximately 2 days shorter for drug offenders with at least a high school diploma than drug offenders with less than a high school diploma.

Model 2 describes the effects of extralegal and legal factors on the determination of sentence length. The addition of legal factors to the model increased the R-squared vale from 0.060 to 0.533, suggesting that legal factors explain a large portion of the variation in the determination of sentence length. Black drug offenders received prison sentences that were 2.22 days longer than prison sentences received by white drug offenders. Prison sentences were 7.68 days longer for male drug offenders than female drug offenders. Age had a curvilinear effect on the determination of sentence length.

⁴ Interpretation of hierarchical linear regression analyses is based on a 30-day month.



Prison sentences were 1.53 days shorter for drug offenders with at least high school diploma than drug offenders with less than a high school diploma.

Regarding legal factors, both criminal history and offense severity score had a significant influence on the determination of sentence length. A one-point increase in criminal history score increased prison sentences by 3.60 days. A one-point increase in offense severity score increased prison sentences by approximately 2.82 days. Prison sentences were 9.09 days longer for drug offenders sentenced for the offense of trafficking than for drug offenders sentenced for other drug-related offenses. Cocaine drug offenders received prison sentences were approximately 1 day longer than prison sentences received by methamphetamine offenders. Drug offenders who were released on bail/bond or ROR and those who pled guilty received shorter prison sentences.

Model 3 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length. To begin hierarchical linear regression analyses, I estimated random variance components for the determination of sentence length to determine whether the effects of extralegal and legal factors should vary by state. Results revealed that all of the variance components were significant. Therefore, all of the coefficients for extralegal and legal factors were treated as random (i.e., allowed to vary) in subsequent models. However, the random-effects model (i.e., intercept varies across states) for the determination of sentence length provided a better fit model than the random-coefficient model (i.e., factors vary across states) (see Britt, 2000). Therefore, Model 4 describes the results for the random-effects model for the determination of sentence length.



Prison sentences were 1.98 and 0.72 days longer for black and Hispanic drug offenders, respectively. Male drug offenders received prison sentences that were 8.10 days longer than prison sentences received by female drug offenders. Age had a curvilinear effect on the determination of sentence length. Prison sentences were shorter for drug offenders with at least a high school diploma than drug offenders with less than a high school diploma. Regarding legal factors, a one-point increase in criminal history score increased sentence length by 3.54 days. A one-point increase in offense severity score increased sentence length by 2.79 days. Prison sentences were approximately 8.07 days longer for drug offenders sentenced for the offense of trafficking than drug offenders sentenced for other drug-related offenses. Prison sentences were shorter for drug offenders who were released on bail/bond or ROR and those who pled guilty prior to sentencing. Regarding contextual factors, only one factor significantly influenced the determination of sentence length. A one-percent increase in the number of Republican voters in a state increased prison sentences for drug offenders.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Cocaine and Table 20

Methamphetamine Offenses for the Years 2005-2015

	Model	del 1		Moc	Model 2		Model 3	13
	q	SE	β	q	SE	β	þ	SE
Extralegal Variables								
Race/Ethnicity ^a								
Black	0.176	0.007	0.082 ***	0.074	900.0	0.035 ***	0.066	*** 900.0
Hispanic	0.019	0.007	** 600.0	-0.003	0.005	-0.001	0.024	0.005 ***
Male	0.601	0.008	0.190 ***	0.256	900.0	0.081 ***	0.270	*** 900.0
Age	0.069	0.002	0.636 ***	0.017	0.001	0.159 ***	0.017	0.001 ***
Age squared	-0.001	0.0002	-0.605 ***	-0.0002	0.00002	-0.170 ***	-0.0002	0.00001 ***
High school or greater	-0.073	0.005	-0.036 ***	-0.051	0.004	-0.025 ***	-0.048	0.004 ***
Legal Variables								
Criminal history score				0.120	0.001	0.214 ***	0.118	0.001 ***
Offense severity score				0.094	0.0003	0.558 ***	0.093	0.0003 ***
Trafficking Offense				0.303	0.013	0.042 ***	0.269	0.013 ***
Cocaine				-0.032	0.005	-0.015 ***	0.003	0.005
Presentence Status ^b								
Out on bail/bond				-0.432	900.0	-0.144 ***	-0.433	0.005 ***
ROR				-0.693	0.012	-0.108 ***	-0.556	0.012 ***
Guilty plea				-0.299	0.00	-0.059 ***	-0.299	*** 600.0

	Contextual Variables Unemployment rate							-0.007	0.018
	Percent voted Republican							0.008	0.002 ***
	Republican governor							0.094	0.064
	Percent black							0.002	0.003
	Percent Hispanic							-0.002	0.003
	Violent crime rate							0.0002	0.0002
	Intercept	2.367	0.032	* * *	0.893	0.028	* * *	0.429	0.175 **
	-2 Log-likelihood	410501.400	00		309042.000	000		292074.000	000
212	Note. Reference categories are: (a) White and (b) In custody	(a) White a	nd (b) In custo	ody.					

Table 20 (Continued)

Models by Race/Ethnicity. Table 21 describes the results of hierarchical linear regression analyses for the three racial/ethnic categories of drug offenders to examine whether extralegal, legal, and contextual factors differentially influence the determination of sentence length of various groups of drug offenders. Model 1 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for white drug offenders. White male drug offenders received prison sentences that were 6.06 days longer than prison sentences received by white female drug offenders. Age had a significant, curvilinear effect on the determination of sentence length for white drug offenders. White drug offenders with at least a high school diploma received shorter prison sentences than white drug offenders with less than a high school diploma. Regarding legal factors, white drug offenders with greater criminal history and offense severity scores received longer prison sentences. Prison sentences were 8.70 days longer for drug offenders sentenced for the offense of trafficking than drug offenders sentenced for other drug-related offenses. White cocaine offenders received shorter prison sentences than white methamphetamine offenders. Prison sentences were shorter for white drug offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, a one-percent in increase in the number of Republican voters in a state resulted in longer prison sentences for white drug offenders.

Model 2 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for black drug offenders. Black male drug offenders received prison sentences that were 12.30 days longer than prison sentences received by black female drug offenders. Age had a significant, curvilinear effect on the determination of sentence length for black drug offenders. Prison sentences were shorter



for black drug offenders with at least a high school diploma than black drug offenders with less than a high school diploma. Regarding legal factors, one-point increase in criminal history and offense severity scores resulted in longer sentences for black drug offenders. Black drug offenders sentenced for the offense of trafficking received prison sentences that were 8.10 days longer than prison sentences received by black drug offenders sentenced for other drug-related offenses. Black cocaine offenders received longer prison sentences than black methamphetamine offenders. Prison sentences were shorter for black drug offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, a one-percent in the number of Republican voters in a state resulted in longer prison sentences for black drug offenders.

Model 3 describes the effects of extralegal, legal, and contextual factors on the determination of sentence length for Hispanic drug offenders. Hispanic male drug offenders received prison sentences that were 7.80 days longer than prison sentences received by Hispanic female drug offenders. Age had a significant, curvilinear effect on the determination of sentence length for Hispanic drug offenders. Prison sentences were shorter for Hispanic drug offenders with at least a high school diploma than Hispanic drug offenders with less than a high school diploma. Regarding legal factors, one-point increase in criminal history and offense severity scores resulted in longer sentences for Hispanic drug offenders. Prison sentences were 8.40 days longer for drug offenders sentenced for the offense of trafficking than drug offenders sentenced for other drug-related offenses. Hispanic cocaine offenders received longer prison sentences than Hispanic methamphetamine offenders. Prison sentences were shorter for Hispanic drug offenders who were released on bail/bond or ROR and those who pled guilty. Regarding



contextual factors, two factors had a significant influence on the determination of sentence length for Hispanic drug offenders. A one-percent in increase in the number of Republican voters in a state resulted in longer sentences for Hispanic drug offenders. Prison sentences were longer for Hispanic drug offenders in states with a Republican governor.

In order to determine whether extralegal, legal, and contextual factors had significantly different effects on the determination of sentence length for the three racial/ethnic categories, I calculated z-scores comparing whites vs. blacks and whites vs. Hispanics. Based on the z-scores for the white-black comparison, six factors had significant interactions with race. Being male had a stronger impact on sentence length for black drug offenders than white drug offenders. Having at least a high school diploma had a stronger impact on sentence length for white drug offenders than black drug offenders. Both criminal history and offense severity scores had a greater impact on sentence length for white drug offenders. Being released on bail/bond had a stronger impact on sentence length for white drug offender than black drug offenders.

White-Hispanic comparison revealed that six factors had significant interactions with ethnicity. Being male had a stronger impact on sentence length for Hispanic drug offenders than white drug offenders. Both criminal history and offense severity scores had a greater impact on sentence length for white drug offenders than Hispanic drug offenders. Trafficking, distributing, and selling drugs had a stronger impact on sentence length for white drug offenders. The type of drug had a stronger effect on sentence length for white drug offenders than Hispanic drug offenders.



Being released on ROR had a stronger impact on sentence length for Hispanic drug offenders than white drug offenders.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Cocaine and Table 21

Methamphetamine Offenses by Race/Ethnicity, 2005-2015

	White (N =)	White offenders $(N = 35,576)$	Black (N =	Black offenders $(N = 53,171)$		Hispanie (N =	Hispanic Offenders $(N = 57,849)$	
	p	SE	þ	SE	Z	þ	SE	Z
Extralegal Variables								
Male	0.202	0.010 ***	0.412	0.013 ***	-12.81 *	0.258	0.008 ***	4.38 *
Age	0.016	0.003 ***	0.017	0.002 ***	-0.28	0.019	0.002 ***	-0.83
Age_Squared	-0.0002 0.	0.00003 ***	-0.0003	0.00003 ***	11.79 *	-0.0002	0.00002 ***	0.00
High school or greater	-0.049	0.009 ***	-0.039	*** 900.0	-8.25 *	-0.053	0.005 ***	0.36
1 Legal Variables								
Criminal history score	0.132	0.002 ***	0.108	0.002 ***	8.48 *	0.112	0.002 ***	7.07 *
Offense severity score	0.097	0.001 ***	0.090	0.001 ***	4.97 *	0.092	0.000 ***	4.46 *
Trafficking offense	0.290	0.029 ***	0.236	0.020 ***	1.69	0.275	0.018 ***	2.28 *
Cocaine	-0.027	0.010 **	0.094	0.181 ***	-0.67	0.021	0.006 **	4.00 *
Presentence Status ^a								
Out on Bail/Bond	-0.438	0.011 ***	-0.399	*** 600.0	-2.75 *	-0.448	0.008 ***	0.74
ROR	-0.548	0.021 ***	-0.519	0.019 ***	-1.03	-0.591	0.023 ***	-9.22 *
Guilty plea	-0.316	0.025 ***	-0.315	0.013 ***	-1.03	-0.288	0.013 ***	-0.99



Contextual Variables								
Unemployment rate	-0.006	0.025	-0.001	0.017	-0.17	-0.016	0.015	0.34
Percent voted Republican	0.010	0.003 **	0.007	0.002 **	0.30	0.005	0.002 **	1.39
Republican governor	0.093	0.087	0.104	0.060	-0.18	0.118	0.050 *	0.44
Percent black	0.002	0.004	0.002	0.003	0.00	0.002	0.002	0.00
Percent Hispanic	-0.003	0.004	-0.002	0.002	-0.21	-0.0021	0.0020	-0.21
Violent crime rate	0.0003	0.0003	0.0001	0.0002	0.55	0.0001	0.0002	0.63
Intercept	0.192	0.245	0.520	0.172 **	1.10	0.618	0.142 ***	-1.51
-2 Log-likelihood Model Chi-Square	80987.316 34904.350***	316 50***	108223.638 62158.450***	3.638 150***		98508.344 73214.560***	.344	

S Note. Reference categories are: (a) In custody. *p<0.05 **p<0.01 ***p<0.001

Models by Drug Type. Table 22 displays the results of hierarchical linear regression analyses for the two drug categories of drug offenders to examine whether extralegal, legal, and contextual factors differentially influence the determination of sentence length for drug offenders. Model 1 describes the effects on extralegal, legal, and contextual factors on the sentence length for cocaine offenders. Black and Hispanic cocaine offenders received prison sentences that were 3.3 days and 2.10 days, respectively, longer than prison sentences received by white cocaine offenders. Sentence length was 10.20 days longer for male cocaine offenders than female cocaine offenders. Age had a significant curvilinear effect on sentence length for cocaine offenders. Cocaine offenders with at least a high school diploma received shorter prison sentences for cocaine offenders with less than a high school diploma.

Regarding legal factors, prison sentences were greater for cocaine offenders with greater criminal history and offense severity scores. Cocaine offenders sentenced for trafficking received prison sentences that were 7.02 days longer than prison sentences received by cocaine offenders sentenced for other drug-related offenses. Prison sentences were shorter for cocaine offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, prison sentences were longer for cocaine offenders in states with a Republican governor.

Model 2 describes the effects of extralegal, legal and contextual factors on the determination of sentence length for methamphetamine offenders. Being black had no significant influence on the determination of sentence length for methamphetamine offenders; however, being Hispanic had a significant influence on sentence length for methamphetamine offenders. Hispanic methamphetamine offenders received longer



prison sentences than white methamphetamine offenders. Prison sentences were 6.30 days longer for male methamphetamine offenders than for female methamphetamine offenders. Age had a significant, curvilinear effect on the determination of sentence length for methamphetamine offenders. Methamphetamine offenders with at least a high school diploma received shorter prison sentences than methamphetamine offenders with less than a high school diploma.

Regarding legal factors, prison sentences were longer for methamphetamine offenders with greater criminal history and offense severity scores. Methamphetamine offenders sentenced for trafficking received prison sentences that were 9.30 days longer than prison sentences received by methamphetamine offenders sentenced for other drug-related offenses. Prison sentences were shorter for methamphetamine offenders who were released on bail/bond or ROR and those who pled guilty. Regarding contextual factors, prison sentences were longer for methamphetamine offenders in states with a Republican governor.

In order to determine whether independent variables had significantly different effects on the determination of sentence length for the two types of drugs, I calculated z-scores comparing cocaine vs. methamphetamine offenders. Results indicate that 10 factors had significant interactions with drug type. Being black had a stronger impact on sentenced length for cocaine offenders than methamphetamine offenders. Being Hispanic had a stronger impact on sentence length for cocaine offenders than methamphetamine offenders. Being male had a stronger impact on sentence length for cocaine offenders than methamphetamine offenders than methamphetamine offenders. Age and Age squared had a stronger impact on sentence length for cocaine offenders than methamphetamine offenders. Criminal history



score had a stronger impact on sentence length for methamphetamine offenders and offense severity score had a greater impact on cocaine offenders. The offense of trafficking had a stronger impact on sentence length for methamphetamine offenders than cocaine offenders. Being released on bail/bond or being released on ROR had a stronger impact on sentence length for cocaine offenders than methamphetamine offenders.



Hierarchical Linear Regression Analyses Predicting Determination of Sentence Length for Federal Cocaine and Table 22

Methamphetamine Offenses by Drug Type, 2005-2015

	Cocaine (N = 9	Cocaine offenders $(N = 95,867)$		Metha of (N :	Methamphetamine offenders $(N = 50,727)$	O		
	þ	SE		d	SE		Z	
Extralegal Variables								
Race/Ethnicity ^a								
Black	0.113	0.008	* * *	-0.030	0.015		11.17	*
Hispanic	0.066	0.008	* * *	0.027	0.007	* * *	3.68	*
Male	0.338	0.008	* * *	0.205	0.007	* * *	18.81	*
Age	0.013	0.001	* * *	0.0220	0.002	* * *	4.02	*
Age squared	-0.0002	0.00002	* * *	-0.0003	0.00002	* * *	3.53	*
High school or greater	-0.047	0.005	* * *	-0.051	0.006	* * *	0.51	
Legal Variables								
Criminal history score	0.112	0.001	* * *	0.126	0.002	* * *	-6.28	*
Offense severity score	0.094	0.0004	* * *	0.091	0.001	* * *	2.78	*
Trafficking Offense	0.234	0.016	* * *	0.314	0.018	* * *	-3.33	*
Presentence status ^b								
Out on bail/bond	-0.453	0.007	* * *	-0.377	0.009	* * *	6.67	*
ROR	-0.599	0.015	* * *	-0.462	0.018	* * *	-5.85	*



	Table 22 (Continued)							
	Guilty plea	-0.300	0.011	* * *	-0.290	0.016	* * *	-0.52
	Contextual Variables							
	Unemployment rate	0.004	0.017		-0.014	0.026		0.58
	Percent voted Republican	0.010	0.002	* * *	0.010	0.003	* *	0.00
	Republican governor	0.076	0.059		960.0	0.090		-0.19
	Percent black	0.002	0.003		0.002	0.004		0.00
	Percent Hispanic	-0.0011	0.002		-0.003	0.004		0.43
	Violent crime rate	0.0001	0.0002		0.0002	0.0003		-0.28
2	Intercept	0.299	0.165		0.269	0.250		0.12
23	-2 Log-likelihood	200800.500	009		88643.642	.642		
•	Model Chi-Square	110136.470***	***0		59667.160***	***09		

Note. Reference categories are: (a) White and (b) In custody. *p<0.05 **p<0.01 ***p<0.001

CHAPTER VII

GENERAL DISCUSSION

Summary of Findings

The purpose of this dissertation was to investigate the effects of extralegal, legal, and contextual factors on the incarceration decision and determination of sentence length for federal cocaine offenses before and after the introduction of the Fair Sentencing Act of 2010. Additionally, this dissertation examined whether the influence of these effects varied by race/ethnicity and drug type. The study yielded three important findings. First, the number of federal crack cocaine and powder cocaine offenses decreased after the introduction of the Fair Sentencing Act of 2010. During the years 2005-2009, there were 27,955 crack cocaine cases; however, during the years 2011-2015, the number of crack cocaine cases decreased by more than half, with a total of 13,360 crack cocaine cases. Additionally, regardless of drug type, the average sentence length decreased from years 2005-2009 to years 2011-2015. Regarding crack cocaine offenses, the average sentence length during the years 2005-2009 was 119.20 months. During the years 2011-2015, the average sentence length for crack cocaine decreased to 94.94 months.

Second, the results from the analyses yielded very little racial and ethnic differences in the incarceration decision and the determination of sentence length.

Descriptives revealed that, after FSA 2010, the percentage of white and black drug cases



decreased while the percentage of Hispanic drug cases increased. However, black drug offenders represented over 50% of those cases. Although the effects of race/ethnicity were found to have a significant influence on the incarceration decision and the determination of sentence length, results revealed that differences in sentence length for white, black, and Hispanic drug offenders were not large. For example, before FSA 2010, black and Hispanic drug offenders received prison sentences that were 3 days and 2.50 days, respectively, longer than prison sentences received by white drug offenders. After FSA 2010, prison sentences were 3.54 days and 2.46 days longer for black and Hispanic drug offenders, respectively, than for white drug offenders.

Third, there was partial support for the theoretical framework. For the majority of the models, the percentage blacks and Hispanics in a state had no significant influence on the incarceration decision and the determination of sentence length before or after the introduction of FSA 2010. Furthermore, the findings for the cocaine-methamphetamine analyses were not supported by the theoretical framework. There were two models for which racial/ethnic composition influenced either the decision to incarcerate and/or the determination of sentence length. The percentage of Hispanics in a state had a negative, significant influence on the incarceration decision for Hispanic drug offenders sentenced before FSA 2010. The likelihood of incarceration was lower for Hispanic drug offenders in states with greater percentages of Hispanics in the population. The effects of this measure on the incarceration decision for Hispanic drug offenders disappeared after the introduction of FSA 2010. The second model revealed that, before FSA 2010, the percentage of blacks in a state had a positive, significant influence on the determination of sentence length for black drug offenders. Prison sentences were longer for drug



offenders sentenced in states with greater percentages of blacks in the population. This effect disappeared after the introduction of FSA 2010.

Although these findings do not fully support the ideas of federal criminal courts and sentencing decisions as racialized social controls, it does suggest that federal sentencing guidelines have "tied the hands" of federal judges where they can only rely on legal factors (specifically criminal history and offense severity) in their sentencing decisions. Even after the introduction of FSA 2010, which allowed judges discretion in sentencing decisions, legal factors remained the strongest predictors of incarceration decision and the determination of sentence length. Extralegal factors had minimal influence on sentencing decisions for both time periods, with gender having a greater impact than race/ethnicity on sentencing decisions. At the contextual level, when judges are required to use criminal history and offense severity in sentencing decisions, the effects of racial/ethnic composition nearly become mute.

Additionally, prior research has revealed that when racial/ethnic minorities represent less than 25% of the population, they do not pose a threat to the existing racial social order (Caravelis, et al., 2011; Feldmeyer & Ulmer, 2011; Liska & Chamlin, 1984; Wang & Mears, 2011). Descriptive statistics for the FSA 2010 analyses revealed that the average percentage of blacks in a state for both time periods was less than 15% and, for Hispanics, the average percentage was less than 17% for both time periods. Descriptive statistics for the cocaine-methamphetamine analyses revealed that the percentage of blacks and Hispanics in a state were less than 15% and 20%, respectively.

In the following discussion, I summarize the findings from before the FSA 2010 (Years 2005-2009) and after the FSA 2010 (Years 2011-2015). I begin by summarizing



the sentencing data and then discuss how the findings relate to the hypotheses outlined in Chapter 4. Second, I discuss the findings for the supplemental analyses of sentencing data for the years 2005-2015. Next, I discuss the implications of these findings for policy. I conclude by discussing limitations and directions for future research.

Description of Sentencing Data

A comparison of the 53,988 cocaine cases during the years 2005-2009 and the 36,204 cocaine cases during the years 2011-2015 revealed that the majority of drug offenders received a sentence of incarceration for cocaine-related offenses. However, the average length of incarceration imposed was shorter during the later years. Regarding extralegal and legal factors, the results indicated that there were more Hispanic offenders and more drug offenders with at least a high school diploma during the later years. Furthermore, the average drug offender age increased from about 33 in 2005-2009 to about 35 in 2011-2015. Compared to the year 2005-2009, during the years 2011-2015, there were more powder cocaine offenders and slightly fewer drug offenders remained in custody prior to sentencing.

Regarding contextual factors, the results indicated that the average state unemployment rate increased from about 6% in 2005-2009 to about 10% in 2011-2015. There were more states with a Republican governor and the average violent crime rate in a state increased during later years. Furthermore, the percentage of Hispanics in a state increased from about 14% in 2005-2009 to about 17% in 2011-2015.



Results of Hypothesis Tests

Separately for the years 2005-2009 and 2011-2015, Table 23 summarizes the extralegal, legal and contextual-level hypotheses tested in this dissertation.



Results of Hypotheses Tests for Incarceration Decision and Determination of Sentence Length for the Years 2005-Table 23

2009 and 2011-2015

		Years 2005-2009	60	Years 2011-2015	2015
		Incarceration Decision	<u>Sentence</u> <u>Length</u>	<u>Incarceration</u> <u>Decision</u>	Sentence Length
Extr	Extralegal Factors Hypotheses				
1a1	Black crack and powder cocaine offenders will receive harsher sentences than white crack and powder cocaine offenders.	Supported	Supported	Supported	Supported
229 229	Hispanic crack and powder cocaine offenders will receive harsher sentences than white crack and powder cocaine offenders.	Supported	Supported	Supported	Supported
1b	Males sentenced for crack and powder cocaine offenses will receive harsher sentences than females sentenced for crack and powder cocaine offenses.	Supported	Supported	Supported	Supported
1c	Age will have a curvilinear effect on sentence severity, with crack and powder cocaine offenders falling in the middle of the age distribution receiving longer sentences than younger and older crack and powder cocaine offenders.	Not Supported	Supported	Not Supported	Supported
14	Less educated offenders sentenced for crack and powder cocaine offenses will receive more severe sentences than more educated offenders sentenced for crack and powder cocaine offenses.	Supported	Supported	Not Supported	Supported

Table 23 (Continued)

Lega	Legal Factors Hypotheses				
2a	Crack and powder cocaine offenders with higher criminal history scores will receive harsher sentences than crack and powder cocaine offenders with lower criminal history scores.	Supported	Supported	Supported	Supported
2b	Crack and powder cocaine offenders with higher offense severity scores will receive harsher sentences than crack and powder cocaine offenders with lower offense severity scores.	Supported	Supported	Supported	Supported
2c	It is expected that the offense type will affect sentencing decisions, with offenders sentenced for trafficking receiving harsher sentences than offenders sentenced for other drug-related offenses (e.g., simple possession).	Supported	Supported	Supported	Supported
ਲ 230	It is expected that drug type will influence sentencing decisions, with crack cocaine offenders receiving more severe sentences than powder cocaine offenders.	Not Supported	Supported	Not Supported	Not Supported
2e	Presentence status is expected to affect sentencing decisions, with crack and powder cocaine detained prior to sentencing receiving more severe sentences than crack and powder cocaine released prior to sentencing.	Supported	Supported	Supported	Supported
2f	Case disposition is expected to affect sentencing decisions, with crack and powder cocaine offenders who go to trial receiving more severe sentences than crack and powder cocaine offenders who plead guilty.	Supported	Supported	Supported	Supported

Con	Contextual-Level Hypotheses				
3a	Crack and powder cocaine offenders sentenced in states with higher unemployment rates are expected to receive harsher sentences.	Not Supported	Not Supported	Not Supported	Not Supported
36	Crack and powder cocaine offenders sentenced in states with a greater percentage of votes for the Republican presidential candidate will receive more severe sentences.	Not Supported	Supported	Not Supported	Supported
3c	It is expected that crack and powder cocaine offenders sentenced in states with a Republican governor will receive more severe sentences.	Not Supported	Not Supported	Not Supported Not Supported	Not Supported
34.	Crack and powder cocaine offenders sentenced in states with a higher percentage of blacks will receive more severe sentences.	Not Supported	Not Supported	Not Supported	Not Supported
342	Crack and powder cocaine offenders sentenced in states with a higher percentage of Hispanics will receive more severe sentences.	Not Supported	Not Supported	Not Supported	Not Supported
3e	Crack and powder cocaine offenders sentenced in states with higher rates of violent crime are expected receive more severe sentences.	Not Supported	Not Supported	Not Supported	Not Supported



Extralegal factors hypotheses. Regarding extralegal factors, the gender of the drug offender was the strongest predictor of both the incarceration decision and the determination of sentence length for the years 2005-2009 and 2011-2015. Hypothesis 1a predicted that predicted that black and Hispanic drug offenders would receive more severe sentences than white drug offenders. Across both time periods, being either black or Hispanic had a significant influence on the incarceration decision and the determination of sentence length. Black and Hispanic drug offenders were more likely than white drug offenders to be incarcerated. When incarcerated, black and Hispanic drug offenders received longer sentences than white drug offenders.

Hypothesis 1b was supported. I predicted that male drug offenders would receive more severe sentences than female drug offenders. As expected, the likelihood of incarceration was greater for male drug offenders than for female drug offenders, with this effect being found across time periods (i.e., both before and after the introduction of the Fair Sentencing Act of 2010). Incarcerated male drug offenders also received longer prison sentences than their female counterparts.

When data were analyzed by race/ethnicity for the years 2005-2009, z-scores revealed that being male had a stronger impact on the incarceration decision for black drug offenders than for white drug offenders; however, there were no significant differences between white and Hispanic drug offenders. There were no racial differences in the impact of being male on the determination of sentence length. During the years 2011-2015, z-scores reveal that there were no racial differences in the impact of being male on the incarceration decision; however, being male had a stronger impact on the

determination of sentence length for black drug offenders than for white drug offenders.

There were no significant differences between white and Hispanic drug offenders.

When data were analyzed by drug type for the years 2005-2009, z-scores revealed that being male had a stronger impact on the incarceration decision for crack cocaine offenders than for powder cocaine offenders. There were no significant differences by drug type on the determination of sentence length for crack cocaine and powder cocaine offenders. During the years 2011-2015, z-scores reveal that being male had a stronger impact on the incarceration decision for crack cocaine offenders than for powder cocaine offenders. Additionally, being male had a stronger impact on the determination of sentence length for crack cocaine offenders than for powder cocaine offenders.

Hypothesis 1c predicted that age would have a curvilinear effect on sentence severity, with drug offenders in the middle of the age distribution receiving more severe sentences than younger and older drug offenders. Across both time periods, this hypothesis was partially supported. Age did not have a significant effect on the incarceration decision, but did have a significant effect on the determination of sentence length. Therefore, sentence length increased as drug offenders increased in age and, at some point, sentence length decreased as drug offenders age.

When data were analyzed by race/ethnicity for the years 2005-2009, there were no racial differences in the influence of age on the incarceration decision; however, age had a significant influence on the determination of sentence length for black and Hispanic drug offenders. Z-scores reveal that age had a stronger impact on the determination of sentence length for black drug offender than white drug offenders, but there were no



racial differences in the effects of age for white and Hispanic drug offenders. During the years 2011-2015, there were no significant racial differences in the effects of age on the incarceration decision; however, the effects of age had a significant influence on the determination of sentence length for black and Hispanic drug offenders.

When data were analyzed by drug type for the years 2005-2009, age did not have a significant influence on the incarceration decision. Age had a significant influence on the determination of sentence length for both crack cocaine and powder cocaine offenders. During the years 2011-2015, age did not have a significant influence on the incarceration decision for crack cocaine and powder cocaine offenders. Age had s significant influence on the determination of sentence length for both crack cocaine and powder cocaine offenders. Across both time periods, z-scores revealed that there were no significant differences by drug type of the effects of age on the incarceration decision.

Hypothesis 1d predicted that less educated drug offenders would receive more severe sentences than more educated drug offenders. This hypothesis was supported for the years 2005-2009, but was partially supported for the years 2011-2015. During the years 2005-2009, drug offenders with at least a high school diploma were less likely to be incarcerated and, when incarcerated, received shorter prison sentences. During the years 2011-2015, educational level had no significant influence on the incarceration decision, but did influence sentence length. Drug offenders with at least a high school diploma received shorter sentences than drug offender with less than a high school diploma.

When data were analyzed by race/ethnicity for the years 2005-2009, educational level had a significant influence on the incarceration decision for white and black drug



offenders, but not for Hispanic drug offenders. Educational level had a significant influence on the determination of sentence length for black and Hispanic drug offenders, but not for white drug offenders. During the years 2011-2015, educational level had no significant influence on the incarceration decision for any racial/ethnic group.

Educational level had a significant influence on the determination of sentence length for white, black and Hispanic drug offenders. Across both time periods, z-scores revealed that there were no significant differences by drug type of the effects of educational level on the incarceration decision. Z-scores reveal that educational level had a stronger impact for white drug offenders than black and Hispanic drug offenders.

When data were analyzed by drug type for the years 2005-2009, educational level only had a significant influence on the incarceration decision for powder cocaine offenders. Educational level had a significant influence on the determination of sentence length for both crack cocaine and powder cocaine offenders. During 2011-2015, educational level had no significant influence on the incarceration decision for crack cocaine and powder cocaine offenders. Educational level had a significant influence on the determination of sentence length for powder cocaine offenders, but not for crack cocaine offenders. Across both time periods, z-scores revealed that there were no significant differences by drug type of the effects of educational on the incarceration decision. During the years 2011-2015, there were significant differences, by drug type, in the impact of educational level on the determination of sentence length. Educational level had a stronger impact on the determination of sentence length for powder cocaine offenders than for crack cocaine offenders.



Legal factors hypotheses. Regarding legal factors, the type of offense was the strongest predictor of the incarceration decision and the determination of sentence length, followed by criminal history score and offense severity score, respectively. Hypothesis 2a predicted that drug offenders with greater criminal history scores would receive more severe sentences than drug offenders with lower criminal history scores. Across both time periods, this hypothesis was supported. Drug offenders with greater criminal history scores were more likely than drug offenders with lower criminal history scores to be incarcerated. When incarcerated, drug offenders with greater criminal history scores received longer sentences.

When data were analyzed by race/ethnicity for the years 2005-2009, z-scores revealed that there were racial/ethnic differences in the impact of criminal history score on the incarceration decision, with the impact being stronger for white drug offenders than for Hispanic drug offenders. There were no racial/ethnic differences between white and black drug offenders. There were racial/ethnic differences in the impact of criminal history score on the determination of sentence length. Criminal history score had a stronger impact on sentence length for white drug offenders than for black and Hispanic drug offenders. During 2011-2015, z-scores revealed that there were no racial/ethnic differences in the impact of criminal history score on the incarceration decision. There were racial/ethnic differences in the impact of criminal history score on the determination of sentence length, with the impact being stronger for white drug offenders than black and Hispanic drug offenders.

When data were analyzed by drug type for the years 2005-2009, z-scores revealed that there were no significant differences by drug type in the impact of criminal history



score on the incarceration decision for crack cocaine and powder cocaine offenders. Z-scores also revealed that criminal history score had a stronger impact on the determination of sentence length for powder cocaine offenders than for crack cocaine offenders. During the years 2011-2015, there were no significant differences by drug type in the impact of criminal history score on the incarceration decision and the determination of sentence length.

Hypothesis 2b predicted that drug offenders with greater offense severity scores would receive more severe sentences than drug offenders with lower offense severity. Across both time periods, this hypothesis was supported. Drug offenders with greater offense severity scores were more likely to be incarcerated and, when incarcerated, they received longer prison sentences than drug offenders with lower offense severity scores.

When data were analyzed by race/ethnicity for the years 2005-2009, z-scores revealed that there were no racial/ethnic differences in the impact of offense severity on the incarceration decision. There were racial/ethnic differences in the impact of offense severity score on the determination of sentence length. Offense severity score had a stronger impact on sentence length for white drug offenders than for black and Hispanic drug offenders. During the years 2011-2015, z-scores revealed that there were no racial/ethnic differences in the impact of offense severity score on the incarceration decision. There were racial/ethnic differences in the impact of offense severity score on the determination of sentence length. Offense severity score had a stronger impact on sentence for white drug offenders than for black and Hispanic drug offenders.

When data were analyzed by drug type for the years 2005-2009, z-scores revealed that offense severity score had a stronger impact on the incarceration decision and the



determination of sentence length for powder cocaine offenders than for crack cocaine offenders. During the years 2011-2015, z-scores revealed that there were no significant differences by drug type in the impact of offense severity score on the incarceration decision for crack cocaine and powder cocaine offenders. Z-scores also revealed that offense severity score had a stronger impact on the determination of sentence length for powder cocaine offenders than for crack cocaine offenders.

Hypothesis 2c predicted that drug offenders sentenced for trafficking would receive more severe sentences than drug offenders sentenced for other drug-related offenses. Hypothesis 2c was supported. Across both time periods, drug offenders sentenced for trafficking were likely than drug offenders sentenced for other drug-related offenses to be incarcerated. When incarcerated, prison sentences were longer for drug offenders sentenced for trafficking than drug offenders sentenced for other drug-related offenses.

When data were analyzed by race/ethnicity for the years 2005-2009, z-scores revealed that there were no racial/ethnic differences in the impact of offense severity on the incarceration decision. There were racial/ethnic differences in the impact of offense type on the determination of sentence length for white and Hispanic drug offenders.

Offense type had a stronger impact on sentence length for white drug offenders than for Hispanic drug offenders. During the years 2011-2015, z-scores revealed that there were no racial/ethnic differences in the impact of offense type on the incarceration decision and the determination of sentence length.

When data were analyzed by drug type for the years 2005-2009, z-scores revealed that offense type had a stronger impact on the incarceration decision for crack cocaine



offenders than for powder cocaine offenders. There were no significant differences by drug type in the impact of offense type on the determination of sentence length. During the years 2011-2015, z-scores revealed that there were no significant differences by drug type in the impact of offense type on the incarceration decision and the determination of sentence length for crack cocaine and powder cocaine offenders.

Hypothesis 2d predicted crack cocaine offenders would receive more severe sentences than powder cocaine offenders. Hypothesis 2d was partially supported. Contrary to expectations, during the years 2005-2009, drug type had no significant influence on the incarceration decision, but did significantly influence the determination of sentence length. During the years 2011-2015, drug type had no significant effect on either the incarceration decision or the determination of sentence length.

When data were analyzed by race/ethnicity for the years 2005-2009, z-scores revealed that there were no racial/ethnic differences in the impact of drug type on the incarceration decision. There were racial/ethnic differences in the impact of drug type on the determination of sentence length for white and black drug offenders. Drug type had a stronger impact on sentence length for black drug offenders than for white drug offenders. During the years 2011-2015, z-scores revealed that there were no racial/ethnic differences in the impact of drug type on the incarceration decision. There were racial/ethnic differences in the impact of drug type on the determination of sentence length. Drug type had a stronger impact on sentence length for Hispanic drug offenders than white drug offenders.

Hypothesis 2e predicted that drug offenders who remained in custody prior to sentencing would receive more severe sentences than drug offenders who were either



released on bail/bond or ROR. Across both time periods, Hypothesis 2e was supported. Drug offenders who were released on bail/bond or ROR were less likely than those who remained in custody to be incarcerated. When incarcerated, drug offenders who were released on bail/bond or ROR received shorter prison sentences.

When data were analyzed by race/ethnicity for the years 2005-2009, there were racial/ethnic differences in the impact of presentence status on the incarceration decision. Being released on bail/bond or ROR had a stronger impact on the incarceration decision for Hispanic drug offenders than for white drug offenders. There were racial/ethnic differences in the impact of being released on bail/bond on the determination of sentence length. Being released on bail/bond had a stronger impact on the sentence length for white drug offenders than for black drug offenders. During the years 2011-2015, there were racial/ethnic differences in the impact of presentence status on the incarceration decision. Being released on bail/bond or ROR had a stronger impact on the incarceration decision for black and Hispanic drug offenders than for white drug offenders. There were racial/ethnic differences in the impact of presentence status on the determination of sentence length. Being released on bail/bond or ROR had a stronger impact on the sentence length for white drug offenders than for black drug offenders. Being released on bail/bond on had a stronger impact on the sentence length for white drug offenders than for Hispanic drug offenders.

When data were analyzed by drug type in 2005-2009, there were no significant differences by drug type in the impact of presentence status on the incarceration decision. There were significant differences by drug type in the impact of presentence status on the determination of sentence length. Being released on ROR had a stronger impact on the



sentence length for powder cocaine offenders than for crack cocaine offenders. During the years 2011-2015, there were no significant differences by drug type in the impact of presentence status on the incarceration decision. There were significant differences by drug type in the impact of presentence status on the determination of sentence length. Being released on bail/bond had a stronger impact on sentence length for crack cocaine offenders while being released on ROR had a stronger impact on sentence length for powder cocaine offenders.

Hypothesis 2f predicted that drug offenders who went to trial would receive more severe sentences than drug offenders who pled guilty prior to sentencing. Across both time periods, Hypothesis 2f was supported. Drug offenders who pled guilty were less likely than drug offenders who went to trial to be incarcerated. When incarcerated, drug offenders who pled guilty received shorter sentences.

When data were analyzed by race/ethnicity for the years 2005-2009, there were no racial differences in the impact of case disposition on the incarceration decision and the determination of sentence length. During the years 2011-2015, there were racial/ethnic differences in the impact of case disposition on the incarceration decision. When data were analyzed by drug type for the years 2005-2009, there were no significant differences by drug type in the impact of case disposition on the incarceration decision. There were significant differences by drug type in the impact of case disposition on the determination of sentence length. Pleading guilty had a stronger impact on sentence length for crack cocaine offenders than for powder cocaine offenders. During the years

⁵ As previously mentioned, the variable case disposition was excluded from the analyses.



2011-2015, there were no significant differences by drug type in the impact of case disposition on the determination of sentence length.

State contextual-level factors hypotheses. Hypothesis 3a predicted that drug offenders in states with greater unemployment rates would receive more severe sentences. Contrary to expectations, state unemployment had no significant influence on the incarceration decision and the determination of sentence length. When data were analyzed by race/ethnicity for the years 2005-2009 and 2011-2015, there were no racial/ethnic differences in the impact of state unemployment rate on the incarceration decision and the determination of sentence length. When data were analyzed by drug type for both time periods, there were no significant differences by drug type in the impact of state unemployment rate on the incarceration decision and the determination of sentence length.

Hypothesis 3b predicted that drug offenders sentenced in states with a greater percentage of votes for the Republican presidential candidate would receive more severe sentences. Across both time periods, Hypothesis 3b was partially supported. The percentage of Republican voters did not significantly influence the incarceration decision, but did have a significant influence on the determination of sentence length. When data were analyzed by race/ethnicity for the years 2005-2009 and 2011-2015, there were no racial/ethnic differences in the impact of the percentage of Republican voters on the incarceration decision and the determination of sentence length. When data were analyzed by drug type for both time periods, there were no significant differences in the impact of the percentage of Republican voters on the incarceration decision. During the



years 2011-2015, there were significant differences by drug type in the impact of the percentage of Republican voters on the determination of sentence length. The percentage of Republican voters in a state had a stronger impact on the sentence length for crack cocaine offenders than for powder cocaine offenders.

Hypothesis 3c predicted that drug offenders sentenced in states with a Republican governor would receive more severe sentences. Across both time periods, Hypothesis 3c was not supported. When data were analyzed by race/ethnicity for the years 2005-2009 and 2011-2015, there were no racial/ethnic differences in the impact of a Republican governor in state on the incarceration decision and the determination of sentence length. When data were analyzed by drug type for both time periods, there were no significant differences by drug type in the impact of a Republican governor in a state on the incarceration decision and the determination of sentence length.

Hypothesis 3d predicted that drug offenders sentenced in states with greater percentages of minorities (e.g., blacks and Hispanics) would receive more severe sentences than drug offenders sentenced in states with lower percentages of minorities. Contrary to expectations, Hypothesis 3d was not supported during the years 2005-2009 and 2011-2015. When data were analyzed by race/ethnicity for the years 2005-2009, there were racial differences in the impact of the percentage of Hispanics on the incarceration decision, with the impact being stronger for Hispanic drug offenders than for white drug offenders. There were no racial/ethnic differences in the impact of the percentage of Hispanics on the determination of sentence length. During the years 2011-2015, there were no racial/ethnic differences in the impact of the percentage of blacks on



the incarceration decision. When data were analyzed by drug type for the years 2005-2009 and 2011-2015, there were no significant differences by drug type in the impact of the percentage of minorities (e.g., blacks and Hispanics) on the incarceration decision and the determination of sentence length.

Hypothesis 3d predicted that drug offenders sentenced in states with greater violent crime rates would receive more severe sentences than drug offenders sentenced in states with lower violent crime rates. Across both time periods, Hypothesis 3d was not supported. State violent crime rate had no significant influence on the incarceration decision and the determination of sentence length. When data were analyzed by race/ethnicity for the years 2005-2009 and 2011-2015, there were no racial/ethnic difference in the impact of the state violent crime rate on the incarceration decision and the determination of sentence length. When data were analyzed by drug type for the years 2005-2009 and 2011-2015, there were no significant differences by drug type in the impact of the state violent crime rate on the incarceration decision and the determination of sentence length.

Summary of Supplemental Analyses Findings

Additional analyses compared sentencing outcomes for federal cocaine and methamphetamine offenses from the years 2005-2015. The purpose of this supplemental analyses was to determine the extralegal, legal, and contextual factors influencing the incarceration decision and the determination of sentence length vary by race/ethnicity and drug type. Analyses revealed that legal factors, such as criminal history and offense severity scores and offense type, had the greatest impact on sentencing outcomes for



cocaine and methamphetamine offenders sentenced from 2005-2015. Regarding extralegal factors, black drug offenders were more likely than Hispanic and white drug offenders, respectively, to be incarcerated. In addition, black drug offenders received longer sentences than Hispanic and white drug offenders, respectively. Male drug offenders were more likely to be incarcerated and received longer sentences than female drug offenders. Regarding legal factors, regardless of race/ethnicity, drug offenders with greater criminal history and offense severity scores were more likely to be incarcerated and received longer prison sentences. Drug type had no significant influence on the incarceration decision and the determination of sentence length. Regarding contextual factors, none had a significant influence on incarceration decisions; however, the percent of Republican voters in the state had a significant influence on the determination of sentence length.

When data analyzed by race/ethnicity, results revealed that white methamphetamine offenders were more likely to be incarcerated and received longer prison sentences. For black drug offenders, the type of drug had no significant influence on incarceration, but black cocaine offenders received longer prison sentences. Hispanic cocaine offenders were more likely to be incarcerated and received longer prison sentences. Having at least a high diploma resulted in a less severe sentence outcome for white and Hispanic drug offenders; however, education only had a significant effect on the incarceration decision for black drug offenders. Regarding legal factors, criminal history and offense severity scores had the greatest impact on the incarceration decisions for white drug offenders, followed by Hispanic drug offenders and black drug offenders, respectively. Regarding contextual factors, unemployment rate was found to only have a



significant influence on the incarceration decisions for black drug offenders. The percent of Republican voters in a state had a significant influence on the determination of sentence length, with the greatest influence on white drug offenders, followed by black and Hispanic drug offenders, respectively.

When data were analyzed by drug type, results revealed that being black significantly increased the likelihood of incarceration and prison sentences for cocaine offenders; however, being black only had a significant influence on the determination of sentence length for methamphetamine offenses. Being Hispanic had a significantly increased the likelihood of incarceration and sentence length for both cocaine and methamphetamine offenders. Regarding legal factors, criminal history and offense scores had the greatest influence on incarceration decisions for cocaine offenders. In terms of determination of sentence length, criminal history score had a greater effect for methamphetamine offenders while offense severity score had a greater effect for cocaine offenders. Regarding contextual factors, the percent of Republican voters in the state had a significant influence on the determination of sentence length, but on the incarceration decision.

Policy Implications

The "War on Drugs" and the national drug policy had a major impact on the criminal justice system for the past 30 years. In the 1980s, Congress passed the Anti-Drug Abuse Acts of 1986 and 1988 in a response to the devastating consequences of the "crack cocaine epidemic" on poor, minority communities. These two policies eventually led to the 100-to-1 crack-powder cocaine sentencing disparity in which drug offenders sentenced for simple possession of 1 gram crack cocaine received the same mandatory

10-year minimum sentence as drug offenders sentenced for 100 grams of powder cocaine. As a result of these two policies, the likelihood of incarceration in the federal system for a drug offense grew substantially. Over these three decades, we have seen a significant increase in the number of low-level dealers and users being sentenced to extensive prison terms. Researchers and politicians alike have attributed to the rapid increase in the prison population to the mass incarceration of drug offenders (Alexander, 2012; Tonry, 2011).

Through the efforts of the United States Sentencing Commission (USSC), it was brought to the attention of policymakers and researchers that there was no evidence-based explanation in the policies implemented in association with the "War on Drugs" and that these had disproportionately affected black and Hispanic drug offenders. In 2002, the USSC recommended to Congress that the crack-to-powder drug quantity ratio to be reduced to 20-to-1, in the hopes that this change would reduce racial disparity in sentencing associated with crack cocaine offenses. It was not until August 2010, with the signing of the Fair Sentencing Act of 2010, a compromise was made and the disparity was reduced to 18-to 1. Under the new law, simple possession of 28 grams of crack cocaine resulted in the same penalty for simple possession of 500 grams of powder cocaine (USSC, 2015).

Based on findings in this dissertation, changes in the policy have been beneficial in relation to the Fair Sentencing Act of 2010. First, there was a substantial decrease in the number of crack cocaine cases handled in the federal system. Additionally, the average sentence length associated with drug offenses, regardless of drug type, decreased after the introduction of the Fair Sentencing Act of 2010. Although the number of crack



cocaine cases decreased post-FSA 2010, blacks still represented 85% of those sentenced for crack cocaine in the federal system and the average sentence length for crack cocaine offenses remained higher than the average sentence length for powder cocaine offenses, a drug that is more valuable than crack cocaine. Regarding race/ethnicity, results from this dissertation revealed that the effects of race/ethnicity on sentencing outcomes were significant; however, at the federal level, these differences were not substantial.

Although FSA 2010 seems to be promising in reducing the number of crack and powder cocaine offenses handled in the federal system, more is needed to reduce the number of individuals currently serving long prison terms for minor drug offenses at both federal and state levels. Policymakers must move even further toward eliminating the drug quantity disparity associated with crack and powder cocaine.

An extension of this research also examined the effects of extralegal, legal, and contextual factors on the incarceration decision and the determination of sentence length for federal cocaine and methamphetamine offenses. Results revealed federal cocaine and methamphetamine offenders received similar prison sentences, with whites and Hispanics being more likely to be sentenced for methamphetamine offenses and blacks being more likely to be sentenced for cocaine (particularly crack cocaine) offenses.

Additionally, the federal government should move toward requiring all states to move toward fixed sentencing guidelines that resemble those implemented at the federal level. Currently, there are 20 states plus the District of Columbia that utilize sentencing guidelines. The goals of sentencing guidelines are to ensure that offenders with similar criminal histories and offenses receive similar punishments and to reduce racial disparity in sentencing. As previously mentioned, the current study found partial support for the



racial/ethnic threat perspective prior to FSA 2010; however, after the introduction of FSA 2010, the effects of racial/ethnic composition disappeared. This suggests that the combination of both sentencing guidelines and FSA 2010 reduced racial inequality resulting from the "perceived" threat posed by racial/ethnic minorities, particularly blacks. Therefore, we need more race-neutral (or color-conscious) policies that can regulate racially discriminatory practices within the criminal justice system. Restricting judicial discretion in federal sentencing, in a sense, has "leveled the playing field" in terms of greater equity in sentencing among drug offenders, regardless of race/ethnicity. Additionally, states should move toward restricting prosecutorial discretion. Prosecutors are usually the deciding factor in whether an offender is charged with a higher or lower offense (e.g., trafficking vs. simple possession). Therefore, racially discriminatory practices have the potential to take place before the offender even makes it to sentencing. Reducing prosecutorial discretion will help mitigate discriminatory prosecutorial decision-making, based not on the facts of the case but on the color of the defendant's skin.

A final policy recommendation is to take a stepwise approach toward the handling of low-level drug offenders. For example, for the first drug offense, convicted drug offenders could be sentenced to a year of probation and a year of drug treatment and rehabilitation. If the offender fails to successfully complete rehabilitation and/or probation, they could then be resentenced to a period of two years of incarceration. For the second drug offense, convicted drug offenders could be sentenced to a year of probation and two years of treatment and rehabilitation. If the offender fails to successfully complete rehabilitation and/or probation, they could then be resentenced to a



period of five years of incarceration. For the third drug offense, convicted drug offenders could be sentenced to a mandatory minimum of five years and three years of treatment and rehabilitation. This stepwise approach gives drug treatment an opportunity to work in the community long before the individual is sentenced to incarceration, which may be helpful in reducing the incarceration of individuals addicted to drugs, who are usually those arrested for possession, and not distribution.

Limitations

Although this dissertation adds to the knowledge and understanding of sentencing outcomes for federal drug offenders, there are several limitations that should be addressed. First, the data utilized for this study involves only federal drug cases; therefore, these results are not generalizable to drug case handled at the state-level. Second, analyses for this study suffered from issues associated with instability, resulting for the large number of variables included in the multilevel analyses. Instability refers to the effect in which small changes in a particular model causes large changes in the results of the analyses (Kreft & de Leeuw, 2007).

A third limitation of this study is that it does not assess how county-level factors may influence district court decisions. Federal sentencing decisions are made by district courts. Since counties in the same state may be served by differing district courts, there may be differences in sentencing outcomes based on county or community characteristics (Kautt & Spohn, 2002). In association with this limitation, this study does not allow for the control of judge characteristics and their influence on sentencing outcomes. Prior research has revealed that judicial characteristics, such as race/ethnicity, gender, and



political affiliation, may influence sentencing outcomes for certain offenders (Combs & Gruhl, 1988; Haynes, et al., 2010; Spohn, 2009; Steffensmeier & Britt, 2001).

A fourth limitation is that this study does not address potential biases experienced at other stages of the criminal justice system (i.e., arrest) Prior research has revealed that racial disparity begins prior to sentencing. Racial/ethnic minorities are more likely than whites to come into contact with police officers and, as a result, are more likely to be arrested (Kane, et al., 2013; Liska & Chamlin, 1984; Novak & Chamlin, 2012; Stolzenberg, et al., 2004).

A final limitation of this study is the measures used to analyzed racial/ethnic threat perspective. The two measures utilized, the percentage of blacks and the percentage of Hispanics in state, were static measures for representing a perceived threat posed by greater populations of racial and ethnic minorities. Contemporary research examining the effects of the racial/ethnic threat perspective assert that scholars must move away from static measure of racial/ethnic populations to dynamic measure of racial/ethnic populations. Dynamic measures explore the impact of changes in the racial/ethnic makeup in a county or state over time (Caravelis, et al., 2011; Wang & Mears, 2010a, 2010b, 2015). These scholars have found that it may not be so much about the racial/ethnic makeup of a population, but more so about the changes in that makeup over time.

Directions for Future Research

This dissertation demonstrated that the introduction of the Fair Sentencing Act of 2010 has made a few contributions to the fight of eliminating the crack-powder cocaine sentencing disparity established by the Anti-Drug Abuse Acts of 1986 and 1988. The



FSA 2010 reduced the number of crack cocaine cases handled at the federal level; however, the average sentence length for crack cocaine offenders only reduced slightly. Future research should examine whether the reduction in the number of crack cocaine cases at the federal level have been diverted to lower level courts.

Research has argued that a consequence of the "War on Drugs" has been the increase in the number of women in prison resulting from convictions of a drug offense (Mauer & King, 2007). Although research from the current study revealed that, regardless of drug type, male drug offenders received more severe sentences than their female counterparts, future research should examine racial differences in the effects of gender on sentencing outcomes for cocaine offenses before and after the introduction of the Fair Sentencing Act of 2010. It is also important explore the effects of gender differences on the sentencing outcomes for both cocaine and methamphetamine offenses.

Future research should also explore the influence of immigration status on sentencing outcomes for Hispanic drug offenders sentenced before and after FSA 2010 as well as its effects on sentencing outcomes for cocaine and methamphetamine offenders.

Due to the changing climate surrounding immigration, it is important to understand whether the criminal justice system serves as a mechanism to deport a group of individuals viewed as not "belonging" in this country.

The effects of racial/ethnic threat on sentencing outcomes did not have a significant influence on sentencing decisions for either cocaine or methamphetamine offenses. However, future research should incorporate multiple measures of racial/ethnic threat. For example, rather than relying on static measures of racial/ethnic composition, research should include dynamic measures of racial/ethnic composition that assess the



effects of change in racial/ethnic composition on sentencing outcomes for drug offenders.

An additional measure of racial/ethnic threat is the number of hate groups in each state.

Oftentimes, hate groups, particularly racial/ethnic hate groups, arise out of fear that racial/ethnic minorities are taking over the limited resources in society.

Conclusion

Although drug use and sale, regardless of drug type, have the potential for dangerous consequences, it is the framing of the drug issue that causes the more serious and unintended consequences. The moral panic and media representation surrounding drug use, particularly cocaine and methamphetamine, has played a role in the mass incarceration of drug offenders. Additionally, harsh sentencing policies, resulting from the social construction of drug use and who uses what drugs, have put away some individuals for decades. In contemporary times, the face of drug users and dealers have changed. Blacks and Hispanics are no longer the "face of drugs"; rather, the new "face of drugs" is young, white middle-class individuals suffering from heroin addiction. Critics of the current "War on Drugs" argue that the United States must move away from criminalizing drug use, especially after United States Attorney General Jeff Sessions pushed for prosecutors to charge offenders with most severe offense, regardless of offense type (Savali, 2017). Rather than focusing on the drug issue as a crime problem, critics urged that the United States must look at the current drug problem as a disease (and public health concern) and funds should be funneled into programs that promote treatment and rehabilitation and programs, such as drug courts, that divert individuals away from the criminal justice system. In the end, the shift from the "War on Drugs" as a



crime problem to a public health concern is more about who is now being criminalized rather than the views on drugs and effectiveness of drug policy.



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APPENDIX A FEDERAL SENTENCING TABLE



SENTENCING TABLE

(in months of imprisonment)

Criminal History Category (Criminal History Points)

	-Offense Level	I (0 or 1)	II (2 or 3)	III (4, 5, 6)	IV (7, 8, 9)	V (10, 11, 12)	VI (13 or more)
	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
Zone A	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
7 P	9	4-10	6-12	8-14	12-18	18-24	21-27
Zone B	- 10	6-12	8-14	10-16	15-21	21-27	24-30
	11	8-14	10-16	12-18	18-24	24-30	27-33
Zone C	_ 12	10-16	12-18	15-21	21-27	27-33	30-37
	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 18	24-30 27-33	27-33 30-37	30-37 33-41	37-46 41-51	46-57 51-63	51-63 57-71
	19 20	30-37 33-41	33-41 37-46	37-46 41-51	46-57 51-63	57-71 63-78	63-78 70-87
	20	37-46	41-51	46-57	57-71	70-87	70-87 77-96
	22	41-51	46-57	51-63	63-78	77-96	84-105
	22	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
Zone D	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 39	235-293 262-327	262-327 292-365	292-365 324-405	324-405 360-life	360-life 360-life	360-life 360-life
		292-365	324-405			360-life	360-life
	40 41	324-405	324-405 360-life	360-life 360-life	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
			nber 15, 20		me	me	IIIC
				7.7			

APPENDIX B $\label{eq:BIVARIATE CORRELATIONS FOR INDIVIDUAL AND CONTEXTUAL FACTORS } FOR THE YEARS 2005-2009$



Appendix B. Bivariate Correlations among Individual and Contextual Factors for Years 2005-2009

APPOINT IN THE PROPERTY OF THE		ari radar aria							
Measure	1	2	3	4	5	9	7	8	6
Extralegal Variables									
1. Black ^a	1.000								
2. Hispanic ^a	-0.757 ***	1.000							
3. Male	0.091 ***	0.004	1.000						
4. Age	-0.122 ***	0.070 ***	0.005	1.000					
5. Age-Squared	-0.127 ***	0.071 ***	-0.001	0.985 ***	1.000				
6. High school or greater	0.078 ***	-0.157 ***	-0.030 ***	0.080 ***	0.063 ***	1.000			
Legal Variables									
7. Criminal history score	0.403 ***	-0.365 ***	0.171 ***	-0.035 ***	-0.056 ***	0.019 ***	1.000		
8. Offense severity score	0.100 ***	0.010 *	0.172 ***	0.066 ***	0.046 ***	*** 600.0-	0.231 ***	1.000	
9. Trafficking offense	0.002	0.040 ***	0.049 ***	-0.034 ***	-0.037 ***	-0.026 ***	-0.011 **	0.235 ***	1.000
10. Powder Cocaine	-0.538 ***	0.502 ***	-0.012 **	0.171 ***	0.162 ***	0.017 ***	-0.397 ***	-0.109 ***	0.002
11. Bail/Bond ^b	* 600.0	-0.073 ***	-0.138 ***	0.033 ***	0.033 ***	*** 660.0	-0.173 ***	-0.191 ***	*** 920.0-
5.2 12. ROR ^b	-0.001	-0.074 ***	-0.087 ***	0.011 **	0.013 ***	0.045 ***	-0.070 ***	-0.109 ***	-0.052 ***
13. Guilty plea	-0.061 ***	0.039 ***	-0.034 ***	-0.046 ***	-0.042 ***	-0.025 ***	-0.057 ***	-0.232 ***	-0.021 ***
Contextual Variables									
14. State unemployment rate	0.093 ***	-0.071 ***	0.044 ***	0.033 ***	0.026 ***	0.004	-0.002	0.031 ***	0.003
15. Percent voted Republican	0.036 ***	-0.005	-0.032 ***	-0.046 ***	-0.043 ***	-0.007	-0.003	-0.019 ***	0.041 ***
16. Republican governor	-0.063 ***	0.120 ***	-0.00034	0.023 ***	0.022 **	-0.041 ***	-0.088 ***	0.023 ***	0.124 ***
17. Percent black	0.209 ***	-0.128 ***	0.061 ***	0.016 ***	* 600.0	-0.012 **	0.029 ***	0.120 ***	0.020 ***
18. Percent Hispanic	-0.319 ***	0.385 ***	-0.043 ***	0.055 ***	0.058 ***	-0.058 ***	-0.176 ***	-0.005	-0.001
19. Violent crime rate	0.017 ***	0.066 ***	0.033 ***	0.068 ***	0.064 ***	-0.026 ***	-0.052 ***	0.104 ***	0.034 ***
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^aWhite as reference category



 $^{^{}b}$ In custody as reference category * p<0.05 ** p<0.01 *** p<0.001

Appendix B (Continued)										
Measure	10	11	12	13	14	15	16	17	18	19
Extralegal Variables										
1. Black ^a										
2. Hispanic ^a										
3. Male										
4. Age										
5. Age-Squared										
6. High school or greater										
Legal Variables										
7. Criminal history score										
8. Offense severity score										
9. Trafficking offense										
10. Powder Cocaine	1.000									
2 11. Bail/Bond ^b	0.053 ***	1.000								
F 12. ROR ^b	0.000	-0.077 ***	1.000							
13. Guilty plea	0.029 ***	0.062 ***	0.031 ***	1.000						
Contextual Variables										
14. State unemployment rate	0.003	0.082 ***	-0.040 ***	-0.001	1.000					
15. Percent voted Republican	0.017 ***	-0.010 ***	-0.079 ***	0.020 ***	-0.108 ***	1.000				
16. Republican governor	0.113 ***	0.113 *** -0.005	-0.085 ***	* 600.0	0.101 ***	0.375 ***	1.000			
17. Percent black	-0.073 ***	0.012 **	0.025 ***	-0.016 ***	0.393 ***	-0.107 ***	0.155 ***	1.000		
18. Percent Hispanic	0.276 ***	-0.044 ***	-0.081 ***	0.023 ***	-0.103 ***	0.010 *	0.421 ***	-0.238 ***	1.000	
19. Violent crime rate	0.092 ***	-0.008	0.010 *	-0.024 ***	0.447 ***	-0.139 ***	0.400 ***	0.538 ***	0.226 ***	1.000
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^aWhite as reference category

 $^{^{}b}$ In custody as reference category * p<0.05 ** p<0.01 *** p<0.001

APPENDIX C BIVARIATE CORRELATIONS FOR INDIVIDUALS AND CONTEXTUAL FACTORS FOR THE YEARS 2011-2015



Appendix C. Bivariate Correlations among Individual and Contextual Factors for Years 2011-2015

The state of the s		o sum man							
Measure	1	2	3	4	5	9	7	8	6
Extralegal Variables									
1. Black ^a	1.000								
2. Hispanic ^a	-0.807 ***	1.000							
3. Male	0.097 ***	-0.010	1.000						
4. Age	-0.046 ***	0.024 ***	0.046 ***	1.000					
5. Age-Squared	-0.060 ***	0.031 ***	0.033 ***	0.985 ***	1.000				
6. High school or greater	0.127 ***	-0.186 ***	-0.030 ***	*** 090.0	0.048 ***	1.000			
Legal Variables									
7. Criminal history score	0.443 ***	-0.398 ***	0.180 ***	-0.009	-0.034 ***	0.053 ***	1.000		
8. Offense severity score	-0.004	0.070 ***	0.153 ***	0.110 ***	*** 680.0	0.003	0.179 ***	1.000	
9. Trafficking offense	-0.016 **	0.040 ***	0.045 ***	-0.030 ***	-0.031 ***	-0.019	0.001	0.202 ***	1.000
10. Powder Cocaine	-0.509 ***	0.461 ***	-0.021 ***	0.134 ***	0.131 ***	-0.005	-0.399 ***	0.024 ***	-0.005
11. Bail/Bond ^b	0.001 ***	-0.049 ***	-0.142 ***	0.033 ***	0.036 ***	0.103 ***	-0.188 ***	-0.190 ***	-0.089 ***
22 12. ROR ^b	0.016 **	*** 890.0-	-0.062 ***	0.022 ***	0.023 ***	0.063 ***	-0.063 ***	*** 860.0-	-0.061 ***
9 13. Guilty plea		0.035 ***	-0.034 ***	-0.048 ***	-0.043 ***	-0.031 ***	-0.041 ***	-0.213 ***	-0.023 ***
Contextual Variables									
14. State unemployment rate	0.043 ***	-0.037 ***	0.048 ***	0.048 ***	0.045 ***	-0.033 ***	-0.027 ***	0.033 ***	-0.023 ***
15. Percent voted Republican	0.054 ***	0.228 ***	-0.012 *	-0.030 ***	-0.030 ***	-0.018	0.039 ***	0.013 *	0.029 ***
16. Republican governor	900.0	0.068 ***	0.008	0.018 ***	0.015 ***	0.008	-0.022 ***	0.059 ***	0.016 **
17. Percent black	0.249 ***	-0.167 ***	0.076 ***	0.039 ***	0.027 ***	0.002	0.051 ***	0.089 ***	0.012 *
18. Percent Hispanic	-0.381 ***	0.393 ***	-0.080 ***	0.016 **	0.028 ***	-0.081 ***	-0.221 ***	0.00002	900.0
19. Violent crime rate	0.010	0.040 ***	0.021 ***	0.059 ***	0.058 ***	-0.021 ***	-0.051 ***	0.039 **	0.014 **
у									

^aWhite as reference category



 $^{^{}b}$ In custody as reference category * p<0.05 ** p<0.01 *** p<0.001

Appendix C (Continued)										
Measure	10	11	12	13	14	15	16	17	18	19
Extralegal Variables										
1. Black ^a										
2. Hispanic ^a										
3. Male										
4. Age										
5. Age-Squared										
6. High school or greater										
Legal Variables										
7. Criminal history score										
8. Offense severity score										
9. Trafficking offense										
10. Powder Cocaine	1.000									
11. Bail/Bond ^b	0.053 ***	1.000								
C 12. ROR ^b	0.000	-0.085 ***	1.000							
22 13. Guilty plea	0.005	0.055 ***	0.028 ***	1.000						
Contextual Variables										
14. State unemployment rate	0.048 ***	0.015 **	-0.070 ***	-0.008	1.000					
15. Percent voted Republican	-0.001	-0.010	-0.088 ***	900.0	-0.146 ***	1.000				
16. Republican governor	-0.098 ***	0.019 ***	-0.044 ***	0.002	-0.067 ***	0.468 ***	1.000			
17. Percent black	-0.070 ***	-0.001	0.057 ***	-0.006	0.301 ***	-0.049 ***	0.162 ***	1.000		
18. Percent Hispanic	0.264 ***	-0.038 ***	-0.071 ***	0.025 ***	0.001 *	0.025 ***	0.052 ***	-0.314 ***	1.000	
19. Violent crime rate	0.054 ***	-0.021 ***	0.056 ***	-0.005	0.351 ***	-0.143 ***	0.210 ***	0.470 ***	0.129 ***	1.000

^aWhite as reference category

^bIn custody as reference category *p<0.05 **p<0.01 ***p<0.001

APPENDIX D $\label{eq:BIVARIATE CORRELATIONS FOR INDIVIDUAL AND CONTEXTUAL FACTORS } FOR THE YEARS 2005-2015$



Appendix D. Bivariate Correlations among Individual and Contextual Factors for Years 2005-2015

	,			,				(
Measure	-	2	m m	4	S	9	7	∞	6
Extralegal Variables									
1. Black ^a	1.000								
2. Hispanic ^a	-0.602 ***	1.000							
3. Male	0.126 ***	0.039 ***	1.000						
4. Age	-0.083 ***	-0.032 ***	0.019 ***	1.000					
5. Age-Squared	0.089 ***	-0.027 ***	0.013 ***	0.986 ***	1.000				
6. High school or greater	0.075 ***	-0.226 ***	-0.054 ***	*** 880.0	0.074 ***	1.000			
Legal Variables									
7. Criminal history score	0.348 ***	-0.343 ***	0.160 ***	0.015 ***	*** 600.0-	0.075 ***	1.000		
8. Offense severity score	-0.017 ***	0.084 ***	0.142 ***	0.071 ***	0.057 ***	-0.022 ***	0.164 ***	1.000	
9. Trafficking offense	-0.002	0.022 ***	0.044 ***	-0.024 ***	-0.025 ***	-0.015 ***	-0.005	0.217 ***	1.000
10. Powder Cocaine	0.496 ***	-0.128 ***	0.128 ***	-0.041 ***	-0.041 ***	0.003	0.088 ***	-0.120 ***	0.005 *
11. Bail/Bond ^b	0.023 ***	-0.094 ***	-0.129 ***	0.035 ***	0.037 ***	0.108 ***	-0.164 ***	-0.191 ***	-0.079 ***
12. ROR ^b	*** 600.0	-0.078 ***	*** 690.0-	0.023 ***	0.025 ***	0.056 ***	-0.060 ***	-0.104 ***	-0.059 ***
13. Guilty plea	-0.063 ***	0.026 ***	-0.038 ***	-0.048 ***	-0.004 ***	-0.015 ***	-0.045 ***	-0.208 ***	-0.021 ***
Contextual Variables									
14. State unemployment rate	0.109 ***	-0.017 ***	0.048 ***	0.019 ***	0.017 ***	-0.048 ***	-0.026 ***	-0.007 ***	-0.028 ***
15. Percent voted Republican	-0.026 ***	-0.026 ***	-0.041 ***	-0.014 ***	-0.014 ***	0.010 ***	0.023 ***	* 900.0	0.043 ***
16. Republican governor	0.067 ***	0.102 ***	-0.014 ***	0.002	0.003	-0.024 ***	-0.063 ***	0.054 ***	0.021 ***
17. Percent black	0.295 ***	-0.191 ***	0.070 ***	0.020 ***	0.012 ***	0.009 ***	0.047 ***	0.036 ***	0.016 ***
18. Percent Hispanic	-0.290 ***	0.363 ***	-0.055 ***	-0.003	* 900.0	-0.076 ***	-0.163 ***	0.016 ***	-0.021 ***
19. Violent crime rate	0.047 ***	0.033 ***	0.020 ***	0.044 ***	0.042 ***	-0.025 ***	-0.043 ***	0.034 ***	0.013 ***

^aWhite as reference category



^bIn custody as reference category *p<0.05 **p<0.01 ***p<0.001

Measure	10	11	12	13	14	15	16	17	
Extralegal Variables									
$1. \mathrm{Black}^{\mathrm{a}}$									
2. Hispanic ^a									
3. Male									
4. Age									
5. Age-Squared									
6. High school or greater									
Legal Variables									

19

18

			* * *	* * *	
		1.000	-0.075 ***	0.054 ***	
	1.000	0.038 ***	0.008 **	-0.039 ***	
7. Criminal history score 8. Offense severity score 9. Trafficking offense	10. Powder Cocaine	11. Bail/Bond ^b	~	13. Guilty plea	
7. Crim 8. Offe 9. Traff	10. Pov	11. Bai	12. ROR ^b		
			2	80	

1.000 0.026 *** 1.000

Contextual Variables								
14. State unemployment rate	0.135 ***	0.032 ***	*** 090.0-	0.004	1.000			
15. Percent voted Republican	-0.110 ***	-0.008 **	-0.053 ***		-0.288 ***	1.000		
16. Republican governor	-0.078 ***	-0.007 **	-0.059 ***		-0.024 ***	0.458 ***	1.000	
17. Percent black	0.276 ***	0.039 ***	0.025 ***	-0.015 ***	0.390 ***	-0.040 ***	0.173 ***	1.000
18. Percent Hispanic	-0.136 ***	-0.049 ***	-0.077 ***		0.128 ***	-0.101 ***	0.278 ***	-0.268 ***
19. Violent crime rate	0.076 ***	-0.007 **	0.015 ***		0.507 ***	-0.140 ***	0.282 *** (0.489 ***

1.000

1.000 0.227 ***

Appendix D (Continued)

^aWhite as reference category

^bIn custody as reference category *p<0.05 **p<0.01 ***p<0.001