

ABSTRACT

Title of dissertation: EVALUATING RACIAL DISPARITIES ACROSS
MULTIPLE DISPOSITIONAL OUTCOMES IN
THE CRIMINAL COURT SYSTEM FOR
FELONY CASES

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This dissertation explored the extent to which the court system provides equal justice, or is race neutral, across primary dispositional case outcomes: diversions, dismissals, acquittals, convictions without custodial sentences, and convictions with custodial sentences. Failing to consider racial disparities in the broader array of dispositional outcomes for felony cases entering the court can mask or hide discriminatory practices occurring for one outcome, but not the others. A race neutral court system requires more than a race neutral sentencing decision.

Dominant theories of the court that are typically limited to final sentencing decisions are expanded and integrated with alternative theoretical frameworks for these additional dispositional outcomes. This work takes focal concerns theory and the liberation hypothesis as a theoretical foundation that is supplemented with implicit bias, stereotypes, organizational attribution theory, organizational efficiency theory, and

heuristics to construct a theoretical framework for the current work. While these mechanisms could not be tested by this dissertation, these theoretical discussions offered specific hypotheses concerning racial disparities in the evaluated dispositional outcomes.

The first of two methods was directed at evaluating differences between case factors and the range of dispositional outcomes explicitly with multinomial modeling techniques. The second method was directed at the cumulative disadvantage research in calculating conditional probabilities by race for receiving a custodial sentence for charged felony cases while matching exactly on current offense and prior arrest levels.

Results impart divergent racial disparities for different dispositional outcomes. Minority defendants, and black defendants in particular, were found to be more likely to receive a dismissal, an acquittal, and a conviction with a custodial sentence, but less likely to receive a diversion or a conviction without a custodial sentence. These results were strongest for drug sales crimes for both blacks and Hispanics as compared against white defendants. Disparities favoring white defendants in the total probability of receiving a custodial sentence were greater when sampling on conviction as opposed to arrest. Racial disparities in the total probability of receiving a custodial sentence varied tremendously by offense type, and were not found to be monotonic. Implications and avenues for future research are discussed.

EVALUATING RACIAL DISPARITIES ACROSS MULTIPLE DISPOSITIONAL
OUTCOMES IN THE CRIMINAL COURT SYSTEM FOR FELONY CASES

by

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1. Introduction

Many criminologists and criminal justice practitioners have been concerned for the potential for racial discrimination in the application of the criminal justice system in the United States (Baumer, 2013; Blumstein, 1982; Zatz, 1987, 2000). This concern has grown over the past forty years with rising disparities in treatment by the police (Gelman et al., 2007; Mitchell & Caudy, 2015; Warren et al., 2006) and within prison populations that retain more black inmates than should be expected by population demographics (Blumstein, 1982; National Research Council, 2014). Blacks and Hispanics continue to be overrepresented in prison populations; a fact that has received extensive research directed at understanding the sources for this disparate treatment within the criminal justice system (Baumer, 2013; National Research Council, 2014). Garland and colleagues (2008: 36) highlight this need to study discriminatory treatment by the justice system directly in noting, “Discrimination in the incarceration of minorities clearly stands out as today’s most critical issue in the study of ‘race, crime, and justice.’” The disparity in the incarceration of minorities is a product of potential differential involvement in crime (Beck & Blumstein, 2017; Hindelang, 1978) as well as differential treatment by the criminal justice system. This differential treatment includes disparities in arrest rates (Beck & Blumstein, 2017; Blumstein, 1982) as well as disparate treatment within the courts (Kutateladze et al., 2014; Ulmer et al., 2016; Wooldredge et al., 2015). Garland and colleagues (2008) call for policymakers, academics, and practitioners to monitor and search for disparities and potential discriminatory treatment in the criminal justice system on the grounds of preserving social equality. A core component of the highlighted potential for discriminatory treatment lay in the courts and the potential for disparate

sentencing practices that result in greater relative numbers of black and Hispanic defendants receiving more punitive dispositional outcomes.

Klonoski and Mendelsohn (1970: 13) highlight the difficulty in identifying and treating inequities within the justice system. “A basic assumption we start with is the existence of numerous inequities in the system of varying degrees of visibility. For the most part, the system has no controls built in to check these inequities other than the relatively passive instrument of appeal” (Klonoski and Mendelsohn, 1970: 13). Klonoski and Mendelsohn (1970) are drawing attention to the lack of formal procedural checks in place within the justice system to appraise the presence of disparities and potential discrimination. Klonoski and Mendelsohn’s (1970) point, while directed toward the state of the justice system in the 1960s, still retains relevance for the criminal justice system today. Practitioners and policymakers have not been the primary drivers of comprehensive inquiries into racial differences in the courts with the notable exceptions of sentencing commissions (Frankel, 1973; Tonry, 2014) and racial impact statements (London, 2011; Mauer, 2007). Many of the explicit evaluations for racial differences in the administration of justice remain with academics, though the balance has begun to shift in the early twenty-first century.

Part of this shift in the balance of research responsibility came from the Obama administration’s focus on drawing attention to inequalities in the administration of justice. President Barak Obama, in addressing the National Association for the Advancement of Colored People (NAACP) on July 14, 2015, noted changes in the US public’s openness to discussing racial differences: “What has changed, though, is that, in recent years the eyes of more Americans have been opened to this truth. Partly because of

cameras, partly because of tragedy, partly because the statistics cannot be ignored, we can't close our eyes anymore." Later, in the same address to the NAACP, President Obama drew explicit attention to the role of race in the entirety of the criminal justice system noting minorities are more likely to be "stopped, frisked, questioned, charged, and detained." Obama (2015) discusses the entirety of the criminal justice system, but disparities in sentencing remain an important component of these highlighted disparities. As noted by Obama (2015), and apparent when recognizing the immense discretion at the hands of courtroom actors, the sentencing process has become one area receiving substantial attention for efforts identifying sources of unwarranted racial disparities. Potential disparities arising from the court have added consequence given the court's symbolic value as the neutral arbiter of justice while also serving as the gateway to prison and the corrections arm of the criminal justice system.

This importance placed upon whether racial disparities arise and their nature in courtroom decisions has translated into hundreds of articles focusing on the imposition of custodial sentences and the associated sentence length (Baumer, 2013; Spohn, 2015; Ulmer, 2012). There have been three broad approaches that have been devoted to calculating the overall extent of racial disparities in the courts. Blumstein (1982, 1993) employed a holistic method that attempted to determine the amount of disparity in the prison population that can be attributed to disparities arising from courtroom processes. The approach entailed identifying the ratio between blacks and whites in arrest rates and comparing that ratio to the respective ratio between blacks and whites in the prison population. The logic following that any differences between the ratios was attributable to the courts. The Blumstein (1982, 1993) method has been employed in many following

analyses in an effort to link disparities in prison to disparities in arrest with the court left as a “black box” in between (Austin and Allen, 2000; Baumer, 2013; Beck & Blumstein, 2017; Crutchfield et al., 1994; Garland et al., 2008; Hawkins, 1986; Hawkins and Hardy, 1989; Sorensen et al., 2003; Tonry, 2011).

In addition to the Blumstein (1982, 1993) method, Baumer (2013) noted what he termed the “modal or typical” approach to assessing racial disparities in custodial sentencing by running statistical models on samples of convicted cases in administrative datasets. Where Blumstein’s (1982, 1993) method treats the court as a “black box,” the modal approach only examines the tail end of the sentencing process with the imposition of custodial sentencing on those cases that are convicted. Baumer (2013) highlights this limitation as being related to selection processes. “It is well known that group-based comparisons of sentence duration decisions may be biased because of differential group-based selection into the sentence length phase of the process, but the issue of differential selection and the potential for bias because of it exists at each of the stages of the process” (Baumer, 2013: 246). The issue in this line of research is one of selection bias and the extent to which analyses on samples selecting upon conviction are biased by selection processes arising from charging, plea bargaining, or diversion decisions. This issue is made more problematic by the fact that many researchers utilizing this modal approach do not attend to these selection processes (Baumer, 2013). Applying this logic to issues of race, to the extent that racial disparities “favor” blacks and minorities in earlier processing stages such as case dismissal, resulting negative disparities discovered at later stages of sentencing may be incorrect. The disparities arising from different stages of case processing could offset, in a fashion that is not captured by focusing squarely

upon what happens to those convicted cases that reached the final stage of the sentencing process.

The third branch of literature exploring racial disparities that attempts to treat the limitations identified by Baumer (2013) focused on cumulative disadvantage (Kutateladze et al., 2014; Schlesinger, 2008; Spohn, 2009; Stolzenberg et al., 2013; Sutton, 2013; Wooldredge et al., 2015). These attempts draw attention to potential accumulations of disparities across multiple stages of court case processing, which may in turn produce a greater net disparity or cumulative disadvantage (Sutton, 2013; Wooldredge et al., 2015). These highlighted studies generally find support for cumulative disadvantage in assessing pretrial outcomes (pretrial detention, bail amount), guilty pleas, and custodial sentencing (Wooldredge et al., 2015). However, Kutateladze et al. (2014) is the only study that accounts for case dismissal, which they find blacks are more likely to receive. Importantly, these are not the only studies to assess racial differences in pretrial outcomes or earlier case processing decisions (e.g., Lee, 2016; Nicosia et al., 2013; Owens et al., 2016), but the cumulative disadvantage works are the few pieces that have attempted to integrate across these differences toward identifying a cumulative difference or disparity.

Those pieces assessing individual case processing decisions or pretrial outcomes individually could be classified as a fourth approach to appraising racial differences within the court. These studies may only evaluate differences in dismissals (Vîlcică, 2012, 2014), diversions (Nicosia et al., 2013), acquittals (Owens et al., 2016), pretrial detention (Lee, 2016; Stevenson, 2016), or guilty pleas (Kellough & Wortley, 2002). Many of these pieces, and those evaluating case dismissals in particular, have evaluated

their chosen outcome directly while retaining all prosecuted cases in the reference category for comparison regardless of the ultimate dispositional outcome included (Franklin, 2010a, 2010b; Vîlcică, 2012, 2014). When applied to case dismissal, this prompts a false equivalency in this reference category among cases that were acquitted, convicted without a custodial sentence, and convicted with a custodial sentence. This false equivalency can reduce or erase competing differences between case dismissal and other potential dispositional outcomes prompting potential type II errors and an inability to accurately interpret resulting findings. For an example, black defendants are more likely to have their case dismissed (Kutateladze et al., 2014), to be acquitted (Owens et al., 2016), and to receive a custodial sentence as compared to white defendants (Wooldredge et al., 2015; Ulmer et al., 2016). If one assesses racial differences in case dismissal as compared to anything else, you may not find racial disparity because acquittals and custodial sentencing are operating in opposite directions, thus biasing the result toward a type II error where you may claim there are no racial differences in dismissals when there actually are. This type II error due to a false equivalency is of immediate concern as it prompts an improper conclusion regarding the role of race in the court at that stage. This is one of the gaps this dissertation attempts to address in conducting modeling strategies that do not induce these false equivalencies in order to more accurately assess competing racial differences across court case processing outcomes.

Another gap remains within the collective literature on racial differences in court processing with regard to the full range of potential dispositional outcomes that can arise for felony cases and how best to calculate racial differences arising from the court. The

extant literature has not evaluated a more complete and comprehensive array of dispositional outcomes toward identifying the nature of detected biases and deviations from the ideal race neutral system advocated by Spohn (2015). As noted, those pieces evaluating earlier decision points have often introduced false equivalencies into their analyses. Conversely, analyses of custodial sentencing typically sample on convicted cases, ignoring case attrition at earlier decision points (Baumer, 2013). Such results run the potential to mischaracterize the relationship between race and final sentencing outcomes to the extent to which earlier processing decisions operate in opposition to the custodial sentencing differences observed for convicted cases. Not accounting for all dispositional outcomes results in an incomplete depiction of the role of race in the court in determining both the process leading to the potential for a custodial sentence and the imposition of a custodial sentence. These are the gaps this dissertation seeks to address in appraising the extent to which the court system provides equal justice, or is race neutral, across primary dispositional case outcomes: diversions, dismissals, acquittals at trial, convictions, pleas, and custodial sentences.

Each of these dispositional outcomes retains an inherent punishment component by having to go through the court process, an infringement upon civil rights in the criminal record from an arrest, conviction, and/or sentencing, and can impose long-term reductions in freedom (Feeley, 1992 [1979]). The notion of the punishment as the process, particularly the pretrial process for lesser crimes, was Feeley's primary argument. Earl's (2008) review of the impact of Feeley's (1992 [1979]) work confirmed this, as Earl found that this extant literature directly citing Feeley's work typically only employed the "process is the punishment" argument. The importance Feeley placed upon

the pretrial process and lesser offenders experiencing the process as punitive is significant for the current work appraising the court process following a felony charge. Individuals having been arrested for a felony are already at a disadvantage in society. They must appear for court, possibly pay for bail, possibly experience detention prior to trial, and face the chance of conviction and sentencing to prison. There are also extensive collateral consequences associated both with receiving a felony arrest and a following felony conviction.¹ These collateral consequences are of greater impact when the defendant was actually innocent of the crime arrested for. As such, any and all interpretations of advantage or disadvantage in the context of court case processing should be interpreted in light of the fact that they follow a felony charge and include a process that can be very punitive in its own right for lesser offenses (Feeley, 1992 [1979]).

Dominant theories of the court, that are often limited to final sentencing decisions, are expanded with concepts from social psychology and behavioral economics to enhance their applicability to these additional dispositional outcomes. Failing to consider racial disparities across the broader array of dispositional outcomes for felony cases entering the court can mask discriminatory practices occurring for one outcome, but not the others. A race neutral court system requires more than a race neutral final sentencing decision. Evaluating racial disparities with the full range of dispositional outcomes highlights where racial disparities are emerging. This information can then be used to

¹ Employers in some states ask prospective employees if they have ever been charged with a felony. In this instance, even if the charges were later dismissed or acquitted, that person that was charged with a felony must report on their application that they have been arrested for a felony. Collateral consequences that are typically discussed only in the context of convictions also apply to a lesser degree upon a felony arrest (Chesney-Lind & Mauer, 2003).

guide policies directed in a more targeted fashion toward where racial disparities are arising.

This work also reinterrogates existing theories and tests of theories to guide future research endeavors toward the ideal race-neutral criminal justice system. Specifically, this dissertation begins with focal concerns theory (Steffensmeier et al., 1998) and the liberation hypothesis (Kalven and Zeisel, 1966; Spohn and Cederblom, 1991), and integrates components of attribution theory (Albonetti, 1987, 1991), stereotypes and implicit bias (Greenwald et al., 1998; Rachlinski et al., 2007), and heuristics (Tversky & Kahneman, 1973) to propose specific hypotheses concerning the direction for racial disparities across a broader array of dispositional outcomes. This allows for a more comprehensive treatment of existing theories in terms of identifying potential displacement among and between dispositional outcomes according to the current offense type and prior record. The employed analysis joins other efforts in expanding the theoretical application of focal concerns theory and the liberation hypothesis from custodial sentencing (see Spohn, 2000b and Schlesinger, 2005), where they are typically tested, to case processing generally. These results and the respective theoretical discussions are oriented around producing a decision-making framework for case processing that can assist in further constructions and testing of sentencing theories.

Toward addressing these gaps, this dissertation employs two complementary methodological approaches that can be applied to quantify the relationships between case factors and dispositional outcomes. The first approach uses a vector of dispositional case outcomes as an outcome measure for multinomial modeling techniques. This approach entails multinomial logistic regression in addition to alternative methodological

specifications that relax the likely violated assumption of multinomial logistic regression in the independence of irrelevant alternatives (IIA) and independent error terms for the stacked comparisons. The IIA assumption generally states that the observed and estimated relationships among categories in the outcome measure must not be sensitive to the inclusion or exclusion of additional categories. This is likely violated within the current context as acquitted and dismissed cases are likely to be related in terms of their respective strength (or weakness) of evidence measures (Bubany and Skillern, 1975; Felkenes, 1975; Forst and Brosi, 1977; Neubauer, 1974). Consequently, dismissed cases would be more likely to be acquitted than convicted if forced to trial. A multinomial logistic regression that does not account for this dependency among the outcome categories would result in a misspecification of the relationships among cases that go to trial. As such, alternative model specifications are attempted that do not violate the IIA assumption to assess the magnitude of this misspecification directly.

The second methodological approach utilizes a means for calculating conditional probabilities for receiving a custodial sentence for all charged felony cases. This approach multiplies the descriptive conditional probabilities across case processing to produce joint probabilities of receiving a custodial sentence and race. This allows for a direct calculation of total race differences as a result of case processing from felony arrest through custodial sentencing while accounting for case attrition explicitly. These calculations are performed while also conditioning on the current offense and prior record levels in order to test hypotheses derived from focal concerns theory and the liberation hypothesis.

The first approach allows for an assessment of racial disparities in predicting dispositional outcome assignment through the lens of the liberation hypothesis and focal concerns theory. This first approach is admittedly unable to test these theories explicitly, but is able to provide results that would at least be consistent with hypotheses derived from the respective theoretical lens. The second approach allows for a calculation of the total or cumulative disadvantage of race for charged felony cases. The two driving research objectives for the current dissertation based upon the above discussion are as follows:

1. Evaluate racial disparities in predicting dispositional outcome assignment through a decision-making framework for case processing.
2. Calculate total or cumulative influences of race on custodial sentencing for specific sets of case characteristics.

The rest of this dissertation is organized as follows. Chapter 2 offers a theoretical review that explores focal concerns theory, the liberation hypothesis, and complementary theoretical mechanisms, and their specific relevance to each dispositional outcome from a broader array of dispositions arising from the courts. Chapter 3 follows with a literature review that is broken down into two general sections with the first focused on three of the general methods of research assessing for racial disparities in sentencing and the second focused on the fourth approach to race and sentencing research concerning specific racial differences for individual dispositional outcomes. Chapter 4 presents the current study including restating research questions and hypotheses originally presented in Chapter 2, the data, included variables and dispositional outcomes, descriptive statistics on the sample, and the analytic plan. Chapter 5 offers results concerning the first research

objective, and Chapter 6 provides results from the second research objective. Chapter 7 finishes with a discussion and conclusion from the present work.

2. Theoretical Review

The primary theoretical foundation for the current work lay in focal concerns theory (Steffensmeier et al., 1998) and the liberation hypothesis (Kalven and Zeisel, 1966; Spohn and Cederblom, 1991). Each of these theories was developed for the purpose of explaining disparities in court outcomes arising due to extralegal factors. The liberation hypothesis was originally proposed to explain jury decisions in attributions of guilt and suggested sentence lengths (Kalven and Zeisel, 1966) while focal concerns theory was concerned with judicial decision-making at sentencing (Steffensmeier et al., 1998). Both of these theories have most often been employed in appraising the final in/out decision or sentence length decision. However, several scholars have attempted to expand the purview of these theories to other individual courtroom decisions including charge reductions (Shermer & Johnson, 2010), case dismissals (Spohn, 2000b), pretrial detention (Demuth, 2003; Freiburger et al., 2010; Sacks & Ackerman, 2014; Spohn, 2000b; Turner & Johnson, 2005; Turner et al., 2003), and guilty pleas (Hartley et al., 2007).

This dissertation builds upon this body of work by synthesizing their reported theoretical mechanisms and joining their arguments with those from additional, and highly complementary, perspectives. These additional perspectives include two from the domain of sentencing in organizational attribution theory (Albonetti, 1987, 1990, 1991) and organizational maintenance theory (Dixon, 1995). They also include contemporary scholarship in social psychology and behavioral economics concerning implicit bias and stereotyping (Greenwald et al., 1998; Rachlinski et al., 2008) and the use of heuristics in decision-making (Kahneman, 2011; Tversky & Kahneman, 1973). Through combining

these perspectives, this dissertation provides an attempt to continue the work of scholars in expanding focal concerns theory and the liberation hypothesis to more dispositional outcomes. The targeted end result is a more comprehensive theoretical framework of courtroom decision-making with regard to racial disparities arising within the range of dispositional outcomes currently under study.

Each of these perspectives is first introduced and discussed in detail. After this discussion, each dispositional outcome or decision point is specifically considered in light of these perspectives and the respective courtroom actors involved in the decision point in order to produce a more comprehensive theoretical lens to guide the current dissertation. Specific hypotheses are offered concerning each of these dispositional outcomes in light of this theoretical framework.

2.1. Employed Theories/Perspectives

2.1.1. Organizational Attribution Theory

Courtroom actors operate in a context full of uncertainty that must be managed in order to process cases. Courtroom actors do not know with certainty whether a would-be defendant is guilty, whether that would-be defendant will offend again (if he/she actually committed the offense in question), or what other courtroom actors at later stages in case processing will decide is appropriate for the given case. Albonetti (1987, 1991) highlights this uncertainty clearly in offering her causal attribution theory. Her theory generally proposes that courtroom actors must consider factors other than the current offense and prior criminal conduct to manage the uncertainty for any given case (Albonetti, 1987, 1991). The additional information considered by courtroom actors here are attributions linked to the defendant based upon extralegal characteristics including race, gender,

socio-economic status, and employment position (Albonetti, 1991; Bridges & Steen, 1998). Courtroom actors will use patterns of responses, or the history of their experiences, to generate some of these attributions, and then use these attributions as a means of reducing uncertainty for the case (Albonetti, 1987, 1991). These attributions gain added importance given the limited time and information with which judges, and other courtroom actors, must operate.

The important component for the current work is the extent to which these attributions by courtroom actors are linked negatively, or punitively, with minority race status. Some scholars argue precisely this in noting more negative, aggressive, dangerous, and irresponsible attributions linked with black men (Gibbs, 1998; Tittle & Curran, 1998). These negative attributions are especially strong with regard to drug use (Jenkins, 1996) and violence (Beckett, 1997). Latinos have also been found to retain more negative attributions than whites, although through distinct processes from those of blacks (Berg, 2002; De Leon, 1998). The conclusion from these studies is that blacks and Hispanics receive more negative attributions than whites generally. Applying this information with Albonetti's (1987, 1991) framework suggests that courtroom actors project negative attributions based upon race onto defendants, leading to racial disparity.

2.1.2. Stereotypes and Implicit Bias

Underpinning the previous discussion concerning organizational attribution theory is stereotyping and the impact of implicit bias. The discussed negative attributions based upon race is a form of stereotyping wherein individuals have preconceived notions regarding group patterns that are then applied erroneously to an individual from that group (Allport, 1954). These stereotypes can generally function in an identical manner as

the negative attributions from Albonetti's (1987, 1991) theory as a means by which courtroom actors can "remove" uncertainty for a case. Whether this removal comes from legitimate differential involvement in crime by race or from preconceived notions that operate disparately by race, the result is a more punitive response based upon expectations and beliefs tied up with race.

Where previously stereotyping in the United States was more overt and discussed under the label of racism (see: history of slavery and the civil rights movement; Wilson, 1987), stereotypes still function today, but are now beginning to be understood from the lens of implicit bias (Greenwald et al., 1998; Rachlinski et al., 2008). Implicit bias suggests that one does not necessarily have to be overtly racist, but that one may hold an internal association or predisposition to consider any group of people as "lesser" or more negative than another group. Greenwald and colleagues (1998) developed a test to determine whether individuals were implicitly biased along both racial and gender lines. Their results impart that a substantial majority of every racial group retains a negative implicit bias against blacks as opposed to whites. Rachlinski and colleagues (2008) revealed this implicit bias was also present in judges, but that its impact upon sentencing could be alleviated if judges are made aware of its presence.

2.1.3. Heuristics and Decision Making

These attributions and stereotypes are also consistent with developments within behavioral economics related to heuristics in decision making. Tversky & Kahneman (1973) discuss several heuristics generally employed by people to navigate the world that can prompt biases or errors in application. Those heuristics that are of relevance to racial differences in the court are related to "representativeness" and "availability" (Tversky &

Kahneman, 1973: 31). Representativeness or similarity is a similar process to that of stereotyping, but is discussed here in the context of a decision-making process that increases efficiency and utility on the part of an individual. The concept is that individuals have difficulty determining whether an individual or object (A) belongs to a group of individuals or objects (B). In making this determination, individuals use a representativeness heuristic to determine how similar the individual or object (A) is to their beliefs and expectations regarding the group of objects (B). Tversky & Kahneman (1973) note that this heuristic can be so powerful in shaping decisions that individuals will reject other pertinent information in favor of the representativeness component.

Availability refers to the ease with which scenarios or instances that are similar to the one under evaluation. “There are situations in which people assess the frequency of a class or the probability of an event by the ease which instances or occurrences could be brought to mind” (Tversky & Kahneman, 1973). This suggests that availability goes a step further from stereotyping by noting that it is not just what information is available or inherent to the individual, but what information is most readily accessible or easily accessed by the individual. These processes can operate to produce negative attributions or stereotypes within individuals moving forward. This is termed “biases due to the retrievability of instances” wherein individuals can misjudge the pattern of a phenomenon due to those instances that appear more numerous (Tversky & Kahneman, 1973: 15). An example of this is present with individuals believing black individuals are shot and killed by police more often, when whites are shot and killed by police more often than whites. The rate of killings by police is disproportionate by race, but more

white individuals than blacks are be shot and killed by police (Tate et al., 2016; The Washington Post, 2016).

These heuristics and potential biases in application should be present for every courtroom actor. However, their application and potential impact upon racial disparity will depend upon the nature of the given decision and the related factors for each decision point. To the extent that these heuristics operate in tandem with negative stereotypes in a uniformly detrimental fashion, then these heuristics do not expand our framework beyond Albonetti's (1987, 1991) framework and components of implicit bias. To the extent to which certain decision points may retain factors or consistencies that operate through heuristics disparately by race, integrating heuristics into the existing framework is important. These discussions are incorporated directly where appropriate for each dispositional outcome.

2.1.4. Focal Concerns Theory

Focal concerns theory arose with the work of Steffensmeier et al (1998) and followed the discussed work of Albonetti (1987, 1991). Where Albonetti (1987, 1991) focused upon attributions based upon concerns of dangerousness, Steffensmeier et al (1998) argued judges made their decisions based upon their assessments of defendants according to three focal concerns. The three focal concerns listed by Steffensmeier et al (1998) include blameworthiness, practical decision-making constraints, and community protection. Community protection is very similar to the focus on dangerousness and the likelihood of recidivism from Albonetti's (1987, 1991) work. Steffensmeier et al (1998) argue that each of these three focal concerns are areas that judge's consider and use in making their sentencing decisions. Steffensmeier et al. (1998) further expand the three

focal concerns into two subdomains per focal concern with wrongfulness and harmfulness as parts of defendant blameworthiness, dangerousness and risk as parts of community protection, and organizational and individual constraints as parts of practical decision making constraints. However, within their own empirical evaluation, they were not able to test the tenets of their theory and focused on differences based upon the intersection of race, age, and gender.

The following empirical literature testing focal concerns theory has generally employed similar approaches to Steffensmeier and colleagues (1998) interpreting differences in sentencing outcomes based upon race as evidence that judges are weighing their decisions based upon the perceived blameworthiness of the defendant. However, racial differences in sentencing decisions on their own do not provide evidence in support of focal concerns theory unless those differences operate through one of the three mechanisms of focal concerns offered by Steffensmeier et al (1998).

Hartley et al. (2007) attempted to operationalize the theory into concrete propositions and hypotheses. They argue that guilty pleas serve as an indicator of blameworthiness, and offense seriousness as an indicator for dangerousness. In doing so, they declare that focal concerns theory is not a theory, but more of a perspective that can guide research. They reach this conclusion based upon the conflation of employed variables that tap into multiple components of focal concerns theory simultaneously. The critique of Hartley et al. (2007) notwithstanding, focal concerns theory remains a central criminal justice lens to describe why black and Hispanic defendants may be viewed as more dangerous or blameworthy for the crimes that they commit (Spohn, 2015).

2.1.5. Liberation Hypothesis

The liberation hypothesis was directly proposed as a means for explaining racial disparities arising from jury decision making (Chen; 2008; Kalven and Zeisel, 1966). Chen (2008: 88) notes, “Penalties are relatively clearly defined for serious and violent offenses, but for lesser crimes, less consensus exists regarding appropriate levels of punishment; therefore there is more potential for juror discretion, which may include consideration of legally irrelevant factors such as race.” The mechanism underpinning the liberation hypothesis is that jurors have the greatest discretion, or liberation, for less serious offenses with offenders that have the least serious prior records. While initially constructed to explain jury decision-making, the liberation hypothesis has since been expanded to explain courtroom actor decision-making at multiple stages throughout case processing including dismissal, acquittal, and conviction with a custodial sentence (Spohn, 2000b).

The liberation hypothesis has received robust empirical support with many studies finding statistically significant impacts for interaction terms of race and offense seriousness (Devine et al., 2009; Guevara et al., 2011; Spohn, 2000b; Spohn and Cederblom, 1991; Wu and DeLone, 2012). However, Spohn (2000b) provides a proposed clarification to the liberation hypothesis – that it should be most relevant for those cases on the margin regarding evidentiary strength. That is to say that those cases with very weak evidence or very strong evidence are straightforward with the decision to acquit or convict, respectively. However, those cases with moderate evidence are more equivocal and, thus, further activate the liberation hypothesis. Devine et al. (2009) provide further

empirical support for this proposition concerning the greatest effects for the liberation hypothesis present for cases with moderate evidentiary strength.

2.1.6. Organizational Maintenance Theory

Underpinning all of the aforementioned discussions of theoretical mechanisms operating with the court is the fact that the court operates with both limited time and limited resources (Dixon, 1995; Eisenstein & Jacob, 1977). Organizational maintenance theory generally proposes that courts and courtroom actors are driven by the goal of efficient case disposition to best utilize these limited time and resources (Dixon, 1995). Several studies found support for this rationale with prosecutors, judges, and defense attorneys noting the importance of disposing of cases efficiently (King et al., 2005; Kramer and Ulmer, 2002; Ulmer et al., 2010). This tradition links cleanly with Eisenstein & Jacob's (1977) notion of court community theory and the importance of evaluating the courtroom workgroup as a unit of analysis. According to organizational maintenance theory, concepts such as bureaucratization will be highly relevant in explaining disparate sentencing practices across contexts (Dixon, 1995). With regard to the current dissertation, organizational maintenance theory is of relevance in identifying which decision points retain the least amount of time to review, and are then more subject to being disposed of with an eye toward efficiency. This disposition, or decision-making, in the interest of efficiency can then prompt many of the aforementioned theoretical mechanisms concerning stereotyping, attributions, familiarity heuristics, and components of the liberation hypothesis. This occurs as the decision-makers may then rely more heavily upon their pre-conceived notions regarding the defendant and the case in order to move the case along more expediently.

2.2. Applying Theoretical Mechanisms to Individual Dispositional Outcomes

The discussed theoretical mechanisms from sentencing, social psychology, and behavioral economics are now applied to the individual dispositional outcomes under study. The dominant lens with which this appraisal takes place stems from focal concerns theory and the liberation hypothesis, but the additional theoretical mechanisms will also be highlighted and incorporated where appropriate. The point here is to understand the impact of these theoretical mechanisms within the specific decision making context that leads to or is part of each individual dispositional outcome. Importantly, many of the proposed mechanisms, both in aggregate and applied to individual dispositional outcomes, cannot be fully observed with aggregate datasets devoid of evidentiary strength measures. As such, tests of these mechanisms cannot be conducted, but results can still be interpreted generally from a “consistent with” perspective.

2.2.1. Pretrial Detention

Pretrial detention results from a bail hearing with a magistrate judge that determines whether a defendant will be released on recognizance, detained with a bail amount set, or detained without bail (Stevenson, 2016).² This determination is typically conducted by the magistrate judge following an initial appearance, and is often the defendant’s second court appearance following an arrest. Those that are denied bail or cannot make the requisite amount of their bail to be released are held in custody prior to trial. The judge largely makes this decision based on a quick review regarding the likelihood of the defendant to both show up to court for trial and reoffend. This quick review is not overly comprehensive, and thus allows for discretion on the part of the

² There are some jurisdictions where bail is handled by the police with specific bail schedules for more common crimes.

judge setting bail. Indeed, Stevenson (2016) found enough variation between judges in their assignment of bail to use that very variation could be used to predict pretrial detention.

The short period in which a judge is able to review a case for the purposes of setting bail is subject to factors from organizational maintenance theory. That is, this decision with relatively little time for review is likely to be completed quickly in the interest of efficiency and clearing the docket. Stevenson (2016) notes that defendants are brought before a magistrate judge within 24 hours of arrest – very little time to comprehensively review a case or collect all relevant details and evidence. As such, the decision made in the interest of efficiency allows for the consideration of extralegal factors to the extent that judges may retain negative attributions or stereotypes against minorities. This couples with the liberation hypothesis to note that the greatest disparities should be expected for lesser offenses given pretrial detention is largely expected for more serious crimes such as rape and murder. This rationale suggests that disparities should be highest in pretrial detention for lesser offenses for which the judge has more discretion and could be influenced by any existing biases or stereotypes that he/she may not be consciously aware of.

As noted by several scholars that have expanded focal concerns theory to pretrial detention, there is substantial room for a magistrate judge to allow existing preconceptions or beliefs to influence his or her bail decision (Demuth, 2003; Freiburger et al., 2010; Sacks & Ackerman, 2014; Spohn, 2000b; Turner & Johnson, 2005; Turner et al., 2003). These scholars also note that the resulting influence of pretrial detention on later stages of case processing can be a product of attributing higher levels of

dangerousness to a defendant appearing in court after being detained than a comparable defendant coming from remaining “clean” in the community (Demuth, 2003; Schlesinger, 2005). Prior record is also likely to be a strong indicator of blameworthiness for this quick decision, and to receive higher levels of pretrial detention. The extent to which focal concerns theory prompts racial disparities in pretrial detention rests upon the extent to which judges retain attributions or stereotypes of minority defendants as more blameworthy or dangerous than respective white defendants.

Based upon the discussed rationale on pretrial detention, this dissertation raises a specific hypothesis concerning racial disparity in pretrial detention for both Blacks and Hispanics as compared to whites:

Hypothesis 1a: Black defendants will be more likely to be detained prior to trial than white defendants.

Hypothesis 1b: Hispanic defendants will be more likely to be detained prior to trial than white defendants.

2.2.2. Diversions

While pretrial detention is a status during court case processing as opposed to a terminal dispositional outcome, diversions and dismissals are both dispositional outcomes that terminate a case before it progresses to trial or a final sentencing decision. Diversions result from a process whereby cases are diverted from formal case processing into alternative programs (Centre for Mental Health, Rethink and the Royal College of Psychiatrists, 2010; Petrila & Redlich, 2007). Feeley (1992 [1979]) noted many defendants described these diversion programs as the highest process dispositional outcome due to the greatly increased demand and meetings placed upon defendants as

opposed to going through trial and/or plea bargaining. There are many kinds of diversion programs that are run by police departments, courts, district attorney's offices, or other outside agencies. These programs are typically only made available to defendants charged with non-violent offenses and can include programs such as drug courts, mental courts, restorative justice conferences, or victim impact panels to name a few.

Many of these programs require the defendant to be released from holding in order to be eligible for the diversion program. The defendant has the option to reject an offer for a diversion program, and many with lower socio-economic status and education or higher legal cynicism may be less inclined to accept the diversion program due to the months of activities/actions that could be viewed as punitive (Feeley, 1992 [1979]; Nicosia et al., 2013; Ulrich, 2002). There is some evidence to suggest that black defendants hold greater levels of legal cynicism (Wood & May, 2003) and would therefore be more likely to reject an offer for a diversion program if they were to receive one. The prosecutor has immense and unbridled discretion in making certain diversion programs available to defendants, which can also prompt disparities based upon extralegal characteristics of the defendant (Feeley, 1992 [1979]).

When applying the employed perspectives to diversions, it is difficult to incorporate the liberation hypothesis as diversions are typically only made available for lesser offenses for offenders with less extensive prior records. There is not typically more serious offense charges receiving offers for diversion programs. However, despite the lack of a more serious offense charge reference group, the liberation hypothesis would still lead to an assumption that racial disparity favoring white defendants should manifest for these lesser offenses considered for diversion programs.

Focal concerns theory has a more direct application to an offer to join a diversion program from a prosecutor or the courts. Blameworthiness and dangerousness are both primary components in determining which defendants receive offers to a diversion program (US Sentencing Guidelines, 2011). The offer of a diversion is also heavily impacted by organizational constraints in both directions (Center for Health & Justice at TASC, 2013; Steadman et al., 1995). Diversion programs are instituted due to pressures on jail and prison populations, but they also have limited spaces available for divertees (Center for Health & Justice at TASC, 2013). Similar to the rationale invoked for pretrial detention, the extent to which blacks are attributed as more blameworthy and dangerous to the community than whites, the more likely they are to not be offered a diversion program. The decision to offer a diversion program is not as much of a relative snap-judgment as that of the magistrate judge during a bail hearing. However, the offer of a diversion program is more discretionary as it is not subject to the same level of precedence as there is with bail proceedings. The potential for racial disparity favoring whites in offers of diversions should be further augmented in aggregate court data due to the previously highlighted higher legal cynicism on the part of black defendants (Wood & May, 2003). The end result is a potentially wide gap in received and accepted diversions between blacks and whites due to blameworthiness, dangerousness, and legal cynicism.

Hypothesis 2a: Black defendants will be less likely to have their case disposed by a diversion program than white defendants.

Hypothesis 2b: Hispanic defendants will be less likely to have their case disposed by a diversion program than white defendants.

2.2.3. Dismissals

Similar to diversions, dismissals constitute another terminal dispositional outcome that can often occur without a trial. Case dismissal is the decision by either the prosecutor or the judge to dismiss a case from the court completely. The vast majority of these dismissals are performed by the prosecutor, who has immense discretion in the decision to continue prosecuting or dismiss a case at any point in case processing, and is further rarely subjected to review or oversight (Albonetti, 1987; Forst, 2002). The prosecutor can dismiss a case in two ways: by declining to move a case forward near the beginning of case processing or by dismissing a case once it has already begun processing. With regard to initial case acceptance, this is the first point with which the court handles a case arising from the police, and many prosecutors base their decision on whether to prosecute upon the strength of the evidence for a given case (Albonetti, 1987; Spohn et al., 1987).

With regard to evidence strength, there is a growing body of research suggesting that police are racially biased and bring forward more, and weaker, cases against minorities than they do against respective whites (Antonovics & Knight, 2009; Gelman et al., 2007; Knowles et al., 2001; Mitchell & Caudy, 2015; Ridgeway & MacDonald, 2009; Weisburd et al., 2014; Weisburd et al., 2015). Police are biased in stopping, questioning, and frisking black and minority individuals more often than white individuals as well as over-arresting black and Hispanic individuals, providing prosecutors with weaker cases for minority defendants as compared to white defendants (Antonovics & Knight, 2009; Gelman et al., 2007; Knowles et al., 2001; Mitchell & Caudy, 2015; Ridgeway & MacDonald, 2009; Weisburd et al., 2014; Weisburd et al., 2015). This pattern can lead to a different set of heuristics employed by prosecutors with regard to both availability and

representativeness in deciding whether to prosecute or dismiss a case at the introductory point.

Prosecutors base their decision upon whether a case is likely to be convicted at trial in order to keep their conviction rates up (Albonetti, 1987). Their decision to not pursue charges will be primarily based upon evidence strength measures. However, as prosecutors receive more cases with disproportionately weaker evidence against minority defendants, it is possible that they will associate typical minority cases as less likely to receive a conviction through the representativeness heuristic. That is, cases against minorities will not be seen as members of the convictable at trial group that prosecutors wish to move forward with. This can also operate through availability with the frequency, and likely lasting impression, of weaker cases against minority defendants that would then affect the decision for later cases brought before the prosecutor. The result of both sets of heuristics is a potential alternative decision-making framework for the prosecutor in the decision to prosecute than later decision points.

This can also be interpreted through the lens of focal concerns theory, where the focal concern for prosecutors here noted by Shermer and Johnson (2010) is a high conviction rate and success at trial. Where the judge may act under an attribution of blacks as more dangerous at the final sentencing stage, the prosecutor may operate under an attribution of cases with black defendants being weaker on average than white cases at the prosecution stage. As such, due to different focal concerns for the actors at distinct decision points, the direction of racial disparities is reversed. These differences would likely also be augmented for less serious offenses for which prosecutors would be more likely to lean upon heuristics in their decision-making.

This is all to suggest that prosecutors, and the courts, are aware of or at least notice the bias in police conduct within their jurisdiction. Whether the proposed increased dismissals for blacks is the result of an effort to correct for police bias, or a prosecutor acting based upon his or her own interests in convicting cases at trial, the result is racial disparity in the counter direction to what is typically documented and discussed in the courts. The conclusion from this logic would be one of a “relative” advantage in dismissals due to prosecutors dismissing more cases for black defendants that have weaker evidence than respective white defendants.

It is important to note this “relative” advantage is still a global disadvantage in terms of experience with the criminal justice system. These individuals would still have a felony arrest on their record and all of the collateral consequences associated with that. They would also likely have further augmented legal cynicism due to experiencing an arrest, possible detention in jail, and embarrassment with family and friends due to biased behavior on the part of police. As such, while this can be construed as a positive outcome from the court for these defendants in having their case dismissed, this is not a positive outcome for the individual on the whole.

Hypothesis 3a: Black defendants are more likely to have their case dismissed than white defendants.

Hypothesis 3b: Hispanic defendants are more likely to have their case dismissed than white defendants.

2.2.4. Guilty Pleas

Guilty pleas, like case dismissals, are largely controlled by the prosecutor. A guilty plea can only arise for prosecuted cases when both a prosecutor offers a plea deal

to a defendant and the defendant accepts the offer if received. Guilty plea deals constitute the vast majority of those cases that result in conviction (Johnson et al., 2016). The first component of the prosecutor offering a plea deal is entirely at the prosecutor's discretion. This decision by the prosecutor to offer a plea deal is not subject to oversight or appeal, and is also not typically tracked in administrative datasets anymore since the PROsecutor Management Information System (PROMIS) was discontinued (Forst, 2002; Johnson et al., 2016). Organizational constraints, a prosecutor's desire to have a high conviction rate, and an expected value of the likelihood of conviction multiplied by the expected sentence if convicted at trial are primary drivers for guilty plea offers from prosecutors (Bushway et al., 2014; LaFree, 1985).

However, the other components of focal concerns theory are also relevant for a prosecutor's decision to offer a plea deal. The offer of a plea from a prosecutor comes after the prosecutor's decision to prosecute or dismiss a case. As such, the previous heuristics operating to the relative advantage of minority defendants due to associations or shorthand techniques that link minority cases with weaker evidence would no longer apply at this stage of the process. The prosecutor would have already conducted that decision-making process and applied the heuristics in the decision to move forward with a case. As such, with regard to the concerns of the prosecutor at the plea bargaining phase, there is a return to the traditional interpretation(s) of focal concerns theory wherein minority defendants could be liable to be viewed as more dangerous and more blameworthy than respective white defendants. This interpretation may follow doubly so, as the prosecutor may be viewing defendants here as having already received a benefit from his/her actions in declining weak cases against minority defendants. The conclusion,

here, then is one that prosecutors are less likely to offer guilty plea deals to minority defendants as opposed to white defendants to the extent that they retain an implicit bias or negative stereotype against minority defendants.

The prosecutor's offer of a guilty plea deal does not guarantee that the case will then be resolved, as the defendant must then accept the guilty plea (Forst, 2002). As noted in the discussion of accepting a case diversion, minority defendants, and black defendants in particular, are going to be less likely to accept a plea deal if offered due to a belief that the system is not acting in their interest (see Wood and May, 2003). This legal cynicism can shape their view of the plea deal as more negative or punitive than it may otherwise be, and lead to a rejection of the guilty plea deal and a movement to trial. This logic, along with the augmented impact of focal concerns theory to the disadvantage of minority defendants, should prompt substantial disparity against black and minority defendants as compared to similar situated white defendants in accepting a guilty plea deal. Importantly, this two stage process cannot be captured in most administrative datasets, or the dataset currently employed. The aggregate difference in accepted guilty pleas must therefore be interpreted in light of the two mechanisms operating to produce the net result.

Hypothesis 4a: Black defendants will be less likely than white defendants to have a case result in a plea deal.

Hypothesis 4b: Hispanic defendants will be less likely than white defendants to have a case result in a plea deal.

2.2.5. Acquittals vs convictions

Where a case is typically dismissed by a prosecutor due to concerns regarding convictability at trial, an acquittal occurs when a case reaches trial and the court does not find sufficient evidence to convict a defendant for the charged crimes. With this regard, acquittals and dismissals are related in terms of their actual or perceived convictability at trial, respectively. While the rationale for relative advantage for blacks as compared to whites at dismissal rested upon bias by police acting indirectly through heuristics, the rationale for a relative advantage for blacks at trial operates through the highlighted reduced likelihood of a plea bargain. Black defendants are more likely to go to trial, and with more cases going to trial, there will be more acquittals for black defendants as a result of volume. This may produce a relative disparity to the extent that there are more marginally convictable cases with black defendants proceeding to trial due to increased legal cynicism on the parts of blacks as opposed to whites.

However, unlike a dismissal controlled primarily by the prosecutor, an acquittal or conviction arises from a decision made by a jury of members of the community in most instances or a judge in those instances where a bench trial is employed. These members of the jury do not have the same degree of experience with the criminal justice system that judges, prosecutors, and defense attorneys have. Unlike the courtroom workgroup that can have extensive experience working with each other to the point of building going rates or known expectations for certain kinds of cases (Eisenstein & Jacob, 1979; Sudnow, 1965), a jury member might only sit on a jury once or twice over their lifetime, and very rarely, if ever, on a jury with someone he or she previously served on a jury with (Baldwin & McConville, 1979; Ellis & Diamond, 2003). The decision to

convict or acquit by a jury is still a highly discretionary decision, though kept in check by the requirement for a unanimous determination of guilt and the appeals process.

While highly discretionary, the liberation hypothesis proposes that this discretion will be heightened for lesser offenses than for more serious offenses. The conviction decision by a jury was one of the primary areas for which the liberation hypothesis was initially applied. The rationale proposing that minority defendants should be disadvantaged for lesser cases to which juries are able to consider extralegal factors.

Implicit bias, stereotypes, and heuristics will all be of great importance for jury decision-making. Unlike prosecutors, judges, and defense attorneys, jury members do not have legal training or experience with which to at least partially guide their decision. They only have the information presented to them in the courtroom and any preconceived notions or biases they have regarding race and culpability. Although juries are supposed to be composed of one's peers, they are typically filled with more white individuals than the respective community (Butler, 1981; Carp, 1982; Fukurai et al., 1993). As such, the potential for prejudice, implicit bias, or stereotypes against minorities by white jurors can prompt disparities against minority defendants in terms of conviction at trial.

The theoretical mechanisms and rationale discussed for acquittals are somewhat mixed. Volume and legal cynicism lean toward a relative advantage for minority defendants, but the liberation hypothesis, stereotypes, and implicit bias dictate a potential disadvantage for minority defendants in receiving an acquittal as opposed to a conviction at trial. This leads to competing hypotheses for acquittals at trial.

Hypothesis 5a: Black defendants will be more likely to have their cases acquitted as compared to white defendants.

Hypothesis 5b: Black defendants will be less likely to have their cases acquitted as compared to white defendants.

Hypothesis 5c: Hispanic defendants will be less likely to have their cases acquitted as compared to white defendants.

2.2.6. Custodial Sentence vs. Probation

The decision to provide a custodial sentence or probation arises for those cases that result in conviction either from a guilty plea deal or a trial. While custodial sentences arising from a guilty plea deal often stem from the conditions laid out in the deal constructed by the prosecutor, the judge still has to approve the resulting guilty plea and can change the sentence accordingly thereof. For cases that were convicted at trial, the sentencing decision rests squarely upon the judge in the vast majority of jurisdictions.³ The judge historically has had far more discretion in the in/out decision as well as the sentence length decision prior to the advent of sentencing guidelines (Frankel, 1974; Tonry, 2014). Today, the judge has limited, supervised, and reviewed discretion in the in/out decision as well as a respective sentence length decision as a result of these sentencing guidelines that dictate the sentences they are supposed to impose.⁴ The

This is the primary decision for which focal concerns theory was constructed and applied in explaining racial disparities in the court. The original formulation by Steffensmeier and colleagues (2008) proposed that judges considered their proposed focal concerns in making sentencing decisions. The liberation hypothesis has also been applied

³ A few jurisdictions allow for juries to sentence defendants as well as determine guilt (King and Nobel, 2005).

⁴ While there is considerable variation in the form of sentencing guidelines states have introduced ranging from prescriptive to advisory, judges have tended to sentence cases within the produced guidelines as it reduces the likelihood of a successful appeal to their sentence (Tonry, 1987).

with this decision point with the notion that judges would be more able to consider extralegal factors for lesser offenses. The concluding logic here, which has received substantial empirical support, is that minority defendants will be more likely to receive a custodial sentence than respective white defendants for lesser offenses in particular.

Hypothesis 6a: Black defendants will be less likely to receive a conviction without a custodial sentence as compared to white defendants.

Hypothesis 6b: Hispanic defendants will be less likely to receive a conviction without a custodial sentence as compared to white defendants.

Hypothesis 7a: Black defendants will be more likely to receive a conviction with a custodial sentence as compared to white defendants.

Hypothesis 7b: Hispanic defendants will be more likely to receive a conviction with a custodial sentence as compared to white defendants.

2.3. Theory Recap

As discussed with regard to the liberation hypothesis, these hypothesized differences are likely to be most prominent for cases with less serious offenses and less serious prior record levels. However, drug crimes are liable to be further augmented as a result of the highlighted increased negative attributions for blacks and Hispanics with regard to drug offenses (Jenkins, 1996). These factors can be incorporated into a set of additional hypotheses as follows:

Hypothesis 8a: Racial differences will be highest for less serious offenses, particularly drug crimes.

Hypothesis 8b: Racial differences will be lowest for more serious offenses.

Hypothesis 9a: Racial differences will be highest for lower prior record scores.

Hypothesis 9b: Racial differences will be lowest for more severe prior record levels.

This review of focal concerns theory, the liberation hypothesis, and complementary theoretical mechanisms has attempted to provide a framework with which to view dispositional outcomes arising from the court. These discussions and rationale afforded several specific hypotheses for the covered dispositional outcomes in the current work. As noted previously, the mechanisms discussed are not fully observed, but results in the proposed direction for each of the dispositional outcomes would be at least consistent with the employed rationale and the respective hypotheses. Further, those results could offer some support toward continuing to expand these theoretical discussions of courtroom actor decision-making.

3. Literature Review

With the theoretical framework for the current work established, this dissertation now turns to the extant literature on race and sentencing for additional information that may support or refute the employed hypotheses. This review first covers the dominant methods of race and sentencing research before turning to empirical results for individual dispositional outcomes.

3.1. Race and Sentencing

Studies of racial disparities arising from the court are not novel in their own right. A plethora of studies have been conducted to determine whether the court is biased against minority defendants (Baumer, 2013; Mitchell, 2005; Zatz, 1987, 2000). There have been four dominant approaches to the study of racial differences arising from court processing in the Blumstein method (Blumstein, 1982, 1993), Baumer's (2013) "modal or typical" method, and those scholars assessing for cumulative disadvantage (Sutton, 2013; Wooldredge et al., 2015). This dissertation will now discuss the first three methods directed at explaining differences in the prison population in detail for the purposes of making clear the limitations of these approaches and the respective gaps that this dissertation seeks to address before discussing specific findings from the fourth branch of this literature on individual dispositional outcomes.

3.1.1. Blumstein Method

Blumstein (1982, 1993), and the scholars that employed this method, took a more holistic approach in assessing the amount of disparity in the prison population that can be attributed to disparities in arrest. Any remaining disparity, by extension, Blumstein

(1982, 1993) attributed to the courts. Blumstein (1982) proposed the following formula for these purposes:

$$X = \frac{\text{expected (black incarceration rate/white incarceration rate)}}{\text{actual (black incarceration rate/white incarceration rate)}} * 100 \quad (1)$$

Where the numerator of the equation represents the ratio of black-to-white incarceration rates based only on arrest disproportionality and the denominator of the equation provides the ratio of black-to-white incarceration rates that is actually observed. Substituting parameters for the specific quantities in the equation leads to the following analytic equation reproduced from Blumstein (1982):

$$X = \frac{\frac{RP}{bN} / \frac{(100 - R)P}{(100 - b)N}}{\frac{QP}{bN} / \frac{(100 - Q)P}{(100 - b)N}} * 100 \quad (2)$$

Q represents the actual black percentage in prison in equation 2, R represents the expected black percentage in prison based on arrest disparity alone, P is the total number of black and white prisoners, N is the total population, and b is the black percentage of the population. Resulting values of X from the above equation denote the percentage of racial disproportionality in incarceration rates that are accounted for by disproportionality in arrest. Blumstein's (1982) primary finding was that roughly 80% of all of the racial differences between blacks and whites in the prison population could be accounted for by disparities in arrest. Blumstein (1982) employed data from 1979, his result has been replicated with data from later periods to update the overall result. These updates produced findings of 76% with data from 1991 (Blumstein, 1993), 61% with data from 2004 (Tonry, 2011), and 55% with data from 2008 (Baumer, 2013).

This approach and formula from Blumstein (1982, 1993) were revolutionary at the time for their efforts to attempt to disaggregate differential involvement in crime by

race from differential treatment in the criminal justice system by race in producing disparities in the prison population. The main benefits of the Blumstein method are its parsimony and minimal data requirements in only requiring aggregate prison population statistics and arrest rates. There is no requirement for detailed processing data for each individual case in constructing an estimate with this approach.

This line of research has led to numerous follow-up works focused both upon replication (Baumer, 2013; Beck & Blumstein, 2017; Blumstein, 1993; Tonry, 2011) and unpacking heterogeneity in the aggregate result provided by the Blumstein formula for the nation (Austin and Allen, 2000; Crutchfield et al., 1994). Some of these follow-up studies focused upon individual states (Austin and Allen, 2000; Harris et al., 2009; Hawkins, 1986) while others explicitly explored variation across states (Crutchfield et al., 1994; Hawkins and Hardy, 1989; Sorenson et al., 2003). These studies generally found substantial variation in the degree to which disproportionality in the prison population could be explained with arrest rates (Crutchfield et al., 1994). Specifically, Crutchfield et al., (1994) applied the Blumstein formula to every state in the United States to descriptively depict this respective contextual variation. They found the percent of disproportionality in prison explained by arrest for states ranging from a low of 28.81% for New Hampshire to a high of 104.14% for Nevada.

Sorenson et al. (2003) further explored variation underpinning the Blumstein method across offense types in a test of the liberation hypothesis. The liberation hypothesis proposes that the greatest disparities will be observed for cases that allow for greater levels of discretion on the part of criminal justice actors. The liberation hypothesis delineates that these are cases with minimal prior records and lesser offense charges,

which then liberate criminal justice actors to apply their discretion. Sorenson et al. (2003) find some support for the liberation hypothesis in their study as violent crimes had higher percentages of disproportionality explained by arrest than lesser or nonviolent offenses.

Beck & Blumstein (2017) provide a recent contribution to this literature employing the Blumstein (1982, 1993) method focused upon providing a correction for Hispanic populations. Beck & Blumstein (2017) highlight a difficulty in replicating the Blumstein (1982, 1993) findings due to prison data distinguishing between Hispanics and non-Hispanics, but arrest data making no such distinction in many jurisdictions. The result is an inability to correctly compare blacks with whites due to the inability to adequately account for Hispanic populations in the ratio of arrest to prison. Beck & Blumstein (2017) provide a corrective procedure by taking self-reported racial identity from Hispanic prisoners

While the Blumstein (1982, 1993) method has proven fruitful in attempting to appraise net disparities in the criminal justice system, it retains several important caveats that limit its utility for dissecting racial disparities arising from the court. First, the Blumstein method calculation employs the current prison population and the current arrest rate to disaggregate disproportionality. However, this calculation does not have any means for accounting for differential involvement in more serious crimes, differences in time served due to potentially harsher sentences, or differences in the law that may result in longer sentences for minorities (e.g., crack-cocaine disparity). As such, we cannot necessarily attribute any unexplained disproportionality to the courts after accounting for arrest. Blumstein (1982) highlights a second limitation explicitly, “The absence of an effect in the aggregate could be a result of mutually compensating discrimination, some

of which may help a black suspect and some of which may penalize him” (Blumstein, 1982: 1263). He continues by dictating, “A more detailed and disaggregated analysis of the individual processing stages and jurisdictions than reported in this article should be pursued to test the degree to which compensating discriminatory effects exist” (Blumstein, 1982: 1280). Treating the court as part of a “black box” as the Blumstein method does misses any competing effects from different stages of court case processing.

3.1.2. The “Modal or Typical” Approach

A more direct method than Blumstein’s for appraising racial disparities arising from the courts is labeled by Baumer (2013) as the “modal or typical” method of race and sentencing research. These are pieces that take a sample of convicted court cases in administrative datasets and look for racial disparities in the imposition of custodial sentences and respective lengths of sentences for these individuals. Where Blumstein’s (1982, 1993) approach treats the court as part of a “black box,” the modal approach focuses explicitly on the tail end of the sentencing process with the imposition of final sentencing decisions. Baumer (2013: 234) notes that “Hundreds of such studies have been conducted during the past three decades (e.g., Hagan, 1974; Spohn, 2000a), and they represent by a long mile the “modal” approach to studying race and sentencing.” However, there is a long history of race and sentencing research that evolved over several waves before reaching the most recent stage that Baumer (2013) termed the modal race and sentencing approach (Zatz, 1987, 2000). Zatz (1987, 2000) identifies four waves of race and sentencing research from the 1930s to the 2000s.

The first wave of sentencing research in Zatz’s (1987, 2000) discussion took place between the 1930s and the mid-1960s. Research during this period typically uncovered

racial disparities that were attributed to discriminatory practices, but the methodologies were highly limited in terms of statistical rigor and relevant controls. The second wave evolved from this first wave from the 1960s through the 1970s by incorporating more statistical controls that prompted little remaining, if any, racial disparities in sentencing. The third wave continued from the 1970s into the 1980s and declared the conclusions of no racial disparity premature and argued that racial differences were more subtle and difficult to capture. The third wave saw a rise of the importance placed upon indirect and interaction effects in evaluating racial differences in sentencing. The fourth, and final, wave of Zatz's (1987, 2000) breakdown took place from the mid-1980s through the 2000s. This fourth wave overlaps substantially with Baumer's notion of the "modal" approach to race and sentencing research. The focus in this fourth wave remained on indirect and interaction effects in evaluating the influence of sentencing guidelines on racial disparities as well as broader racial disparities in sentencing severity.

Race and sentencing research has clearly evolved over the past 80 years in terms of both methodological sophistication and data availability. The literature from the fourth stage, and highlighted by Baumer (2013), generally finds evidence for the direct influence of race on sentencing as well as mediation through legally relevant factors such as offense seriousness and prior record (Baumer, 2013; Mitchell, 2005; Spohn, 2015; Ulmer, 2013; Ulmer et al., 2016). However, Baumer (2013) and Spohn (2015) explicitly note that this approach of sampling on convicted cases has several limitations and leaves many questions unanswered. Baumer (2013: 240) notes, "Though it is perhaps understandable that there is a dearth of studies that have focused on how defendant race can influence trial outcomes since a relatively small fraction of criminal cases are

adjudicated at trial, the relative inattention to the other outcomes mentioned was considered especially problematic both because they are important in their own right and because they are very consequential for decisions downstream in the process.” Baumer is referring to the influence of case dismissal, acquittal, diversions, and other early dispositional outcomes as early case outcomes that both directly and structurally impact the flow of cases to the final sentencing decision. A sample of convicted cases for the “modal” approach to race and sentencing research by definition will not include cases that were dismissed, acquitted, or diverted.

Baumer, in large part based upon the limitations imposed by sampling on a late dispositional decision point, concluded that while “the typical approach to studying race and sentencing is *useful* for helping to clarify the widely referenced disparities in overall imprisonment rates, *this approach alone is highly insufficient*” (emphasis in original, Baumer, 2013: 237). Spohn (2015: 76-77) echoes the critiques from Baumer (2013) when she writes, “Arguing that a key limitation of extant research is its failure to consider the conditioning effects of consequential case processing decisions that precede the final punishment decision, wave 5 scholars point out that focusing on a single decision-making stage (i.e., sentencing) may mask disparities originating at other discretionary stages.” The wave 5 scholars referred to by Spohn (2015) are those that go beyond sampling on convicted cases in an effort to capture the interdependent nature of case processing decisions across the court. A small group of these scholars have been moving forward in an effort to uncover what they refer to as cumulative disadvantage, or the cumulative effect of disparities at sequential decision points within court case processing.

3.1.3. Cumulative Disadvantage

This more recent advancement within race and sentencing research lay in those works directed at evaluating the notion that disparities at multiple stages of court case processing can accumulate to a greater total disparity or cumulative disadvantage. As noted above, Spohn (2015) identifies this avenue of research as a potential fifth wave to be added to the classification schema of Zatz (1987, 2000). There are six pieces that can be placed within this so-called fifth wave of race and sentencing research (Kutateladze et al., 2014; Schlesinger, 2008; Spohn, 2009; Stolzenberg et al, 2013; Sutton, 2013; Wooldredge et al., 2015)

Some of the initial inquiries into cumulative disadvantage by race in court processing generally consisted of multiple individual models for the distinct decision-points, but minimal integration across models other than what could be construed as mediation analyses (Schlesinger, 2008; Spohn, 2009). Nevertheless, these studies still found the presence of both direct and indirect pathways from race to sentencing outcomes acting in concert to produce total, or cumulative, effects; they were only limited in their methodological ability to calculate this total effect.

Spohn (2009) utilized data from the United States Sentencing Commission's Offender data file for the US District Courts of Minnesota, Nebraska, and Iowa's southern district on black and white offenders convicted of drug trafficking offenses involving cocaine (powder or crack), methamphetamines, or marijuana. She found direct effects for race on sentence length and indirect effects for race on sentence length through pretrial detention. She also found these processes to operate differentially according to

gender. Spohn's (2009) results highlight the interrelated nature of multiple decision-points within court processing while focusing on pretrial components.

Schlesinger (2008) employed State Court Processing Statistics (SCPS) data on men charged with felony drug offenses from 1990-2002 toward highlighting racial disparities in pretrial outcomes including bail, non-financial release, bail amount, ability to post bail, pretrial incarceration, and adjudication level. She then incorporated these earlier outcomes as predictors for later models explaining sentence length and whether a custodial sentence was applied toward evaluating the direct main effect of race on sentencing in addition to indirect effects through these pretrial outcomes. The results suggested both direct and indirect racial disparity for blacks and Latinos(as) as compared with whites (Schlesinger, 2008).

More contemporary efforts at understanding cumulative disadvantage employ an assortment of both creative and diverse modeling approaches to integrate numerous decision points beyond a pure mediation analysis (Kutateladze et al., 2014; Stolzenberg et al, 2013; Sutton, 2013; Wooldredge et al., 2015).

Sutton (2013) used SCPS data for 2000 and evaluated direct and cumulative disparities in the courts. He estimated separate multilevel logistic regression models for pretrial detention, guilty pleas, and sentence severity. These results imparted direct disadvantages for blacks and Latinos for both pretrial detention and sentence severity. He then used these results to try to get at cumulative impacts by calculating conditional probabilities for later sentencing outcomes based upon the observed values for black, Anglo, and Latino cases, respectively. He then plotted out these conditional posterior probabilities for different sets of experiences to evaluate the net effect of race on later

sentencing outcomes. This approach revealed further disparities for later stages due to its combination of direct and indirect effects in calculating the respective conditional probabilities.

Stolzenberg et al (2013) also used SCPS data with similar outcome measures to Schlesinger (2008) toward assessing direct and cumulative effects of race on sentencing. However, where Schlesinger (2008) incorporated pretrial outcomes as control variables in assessing later stages of case processing, Stolzenberg et al (2013) took a more creative approach in applying a meta-analysis to the combination of effects for each outcome treated independently. Essentially, Stolzenberg et al (2013) treat each potential case processing outcome as a separate and independent study, and conduct a meta-analysis on the collection of results for each of these analyses to produce a total effect of race on court processing that is at play throughout the court process. They find a significant overall total disadvantage for blacks as compared to whites, but only marginally significant total effects for Hispanics as compared to whites.

Kutateladze et al (2014) used data on 150,000 criminal cases from the New York County District Attorney's Office to assess cumulative disadvantage in case processing among blacks, Latinos, Asians, and whites. The outcomes of interest for Kutateladze and colleagues (2014) were pretrial detention, dismissal, custodial plea offer, and incarceration sentence. Unlike Stolzenberg et al (2013), Kutateladze et al (2014) do look at the influence of race on dismissal. However, they struggled to jointly assess the influence of race upon dismissals and their other outcomes within a single model. The solution Kutateladze et al (2014) employed was to create combinations of potential outcomes on the four variables and look at how predicted membership in those

combinations shifted according to race. For example, some defendants were held in pretrial detention, received a custodial plea offer, and were then sentenced to incarceration while other defendants were not held in pretrial detention, did not receive a custodial plea offer, and were still given an incarceration sentence. Not all combinations of these four outcomes were possible, which results in 11 combinations of these four outcomes that Kutateladze et al. (2014) then treated as outcomes to predict with predicted probabilities across racial groups. The results of this approach found blacks and Latinos to be generally disadvantaged, whites the least likely to have their case dismissed, and Asians generally received the most favorable outcomes.

Wooldredge et al (2015) conduct a structural equation model for all of their convicted cases toward evaluating the direct, indirect, and total effects of race on whether a defendant received a custodial sentence. Wooldredge et al (2015) are not the first to estimate race effects on sentencing outcome with a path analysis, as Hagan (1975) beat them to it by 40 years. However, Wooldredge et al (2015) do still find evidence for the direct and indirect effect of race for convicted cases in determining custodial sentencing. Specifically, Wooldredge et al. (2015) found indirect effects for race through pretrial outcomes including pretrial detention, bail amount, prior record, and hired attorney. These indirect effects combined with the direct effect of race resulted in a greater total or cumulative effect of race on custodial sentencing.

These pieces directed at cumulative disadvantage have done much to push beyond the confines of the “modal” approach to race and sentencing research. However, Kutateladze et al. (2014) is the only piece from this avenue of research to include case dismissal as a potential dispositional outcome, which they find black defendants are more

likely to receive. Further, none of these pieces can highlight differences in processing for all felony cases to take account of all potential dispositional outcomes in a comprehensive treatment of the role of race in court case processing. Relatedly, none of these pieces within the cumulative disadvantage literature can produce a singular estimate for the cumulative racial difference across case processing in the imposition of custodial sentences.

3.1.4. Summary and Recap

It is clear from this review of the dominant approaches to the study of race and sentencing that this literature has not been static. It has evolved along several lines toward what would appear to be the current target of understanding the role of race across court case processing. There is also a heavy emphasis in attempting to calculate a total or cumulative disadvantage for race across court case processing. The cumulative disadvantage literature comes closest to attaining these goals, but, as noted above, it does not move far enough to answer these important questions concerning inequality in the court beyond and leading up to the final sentencing decision. These gaps in the cumulative disadvantage literature, and the race and sentencing literature on the whole, are the focus for the current dissertation.

3.2. Race and Dispositional Outcomes

While there has not been a comprehensive treatment of the range of dispositional outcomes available to felony cases in the court, the extant literature does afford substantial information on those decision points considered in isolation for racial disparities. This dissertation now turns to this fourth branch of the race and sentencing literature on these individual courtroom decisions and dispositional outcomes. The

findings from this extant literature are interpreted in light of the discussed theoretical rationale to inform hypotheses for the current, comprehensive inquiry into court case processing.

3.2.1. Race and Pretrial Detention

Pretrial detention, while not a dispositional outcome, is a decision point that has received ample treatment by the extant literature investigating racial disparities (Demuth, 2003; Freiburger and Hilinski, 2010; Katz and Spohn, 1995; Lee, 2016; Nagel, 1983; Reitler et al., 2013; Sacks et al., 2014; Schlesinger, 2005; Spohn, 2009; Stevenson, 2016). As noted in the theory discussion, defendants are held in pretrial detention when they are denied a release on recognizance or cannot afford to post the bail amount set (Stevenson, 2016). Black (Demuth, 2003; Freiburger and Hilinski, 2010; Lee, 2016; Nagel, 1983; Reitler et al., 2013; Sacks et al., 2014; Spohn, 2009; Stevenson, 2016) and Hispanic (Demuth, 2003; Nagel, 1983; Reitler et al., 2013; Sacks et al., 2014; Spohn, 2009) defendants have been found to be significantly more likely to be detained prior to trial across several contexts with diverse methodological approaches. Those defendants who receive pretrial detention are also then more likely to receive more negative or detrimental outcomes at later stages of court case processing (Lee, 2016; Sacks and Ackerman, 2014; Stevenson, 2016).

A few of these studies focused exclusively on the bail amount set by the court (Katz and Spohn, 1995; Nagel, 1983; Sacks et al., 2015). Katz and Spohn (1995) did not find any evidence for racial disparities in the bail amount set violent offenders in Detroit. However, Nagel (1983) analyzing bail amount set in New York found that Hispanic and black defendants consistently received higher bail amounts than respective white

defendants. Nagel also found an interesting further disparity based upon whether the defendant was English-speaking with those who spoke English receiving more favorable bail amounts. Sacks and colleagues (2015) evaluated bail outcomes and pretrial detention with sample of cases from New Jersey. They applied a more rigorous statistical methodology with Bayesian probability analytics and found black and Hispanic defendants were more likely to have to pay bail, but only moderate differences in the amount of bail that was set. However, Sacks et al (2015) found minority defendants were less likely to be able to afford bail, and that commensurate disparities in pretrial detention followed.

Unlike the previous pieces focused more on bail amounts, Demuth (2003) specifically investigated racial differences in pretrial detention using the SCPS data for 1990, 1992, 1994, and 1996 on felony defendants in large urban jurisdictions. Demuth (2003) found Hispanics to be the most likely to be detained prior to trial (50.5%) with white defendants the least likely to be detained (33.1%) and black defendants in between the other two racial groups (44.8%). These differences were also found to be statistically significant with blacks and Hispanics being more likely than whites to be detained within logistic and OLS regression models predicting detention and controlling for both the current offense type and prior record.

Reitler et al. (2013) investigated extralegal differences in pretrial detention for Federal cases from 2007. They found weaker extralegal differences in pretrial detention as compared to the influence of legal factors. However, age, gender, and race were all statistically significant predictors of detention in each of their models. Blacks and Hispanics were each found more likely to be detained prior to trial than white defendants.

Reitler et al. (2013) then estimated their overall model of pretrial detention for each racial group separately and found that the coefficients for other independent variables in the models acted differentially by race. For example, weight of evidence presumption⁵ was a more robust predictor for black and Hispanic cases than for white cases in determining pretrial detention.

Freiburger and Hilinski (2010) likewise employed multivariate models that controlled for relevant controls to assess for racial and gender differences in pretrial detention on a sample of cases from 2006 in an urban county in Michigan. The statistical significance of race abated in their analysis upon controlling for economic factors. Black females were less likely to be detained than white females when analyzing the sample split by gender; Freiburger and Hilinski (2010) did not find any differences by race for the men in their sample.

The studies discussed thus far employed variations of multivariate modeling techniques that did not allow for causal estimations for the effect of race on pretrial detention. Lee (2016) and Stevenson (2016) provided two approaches that attempted to overcome the influences of selection processes in their evaluations of racial differences in pretrial detention.

Lee's (2016) inquiry with data from Florida was more heavily focused upon identifying the effect of pretrial detention on incarceration using propensity score matching than exploring racial differences in the experience of pretrial detention. Nevertheless, in producing her balanced samples, she found that black defendants received pretrial detention significantly more than white or Hispanic defendants, and had

⁵ The weight of evidence presumption refers to whether "the drag-and-firearm-offender rebuttable presumption exists" (Reitler et al., 2013: 350).

to incorporate this racial factor in her propensity score matching in order to obtain balance between the released and detained samples. Specifically, 51% of those detained were black while 47% of those released were black (Lee, 2016). Pretrial detention was later found to be a significant predictor of conviction for the matched sample, but race did not have a significant independent effect on conviction for this matched sample.

Stevenson (2016), like Lee (2016), was concerned with identifying a more causal estimate for the effect of pretrial detention on later sentencing outcomes. Stevenson (2016) exploited a natural experiment in the rotating of magistrate judges to bail hearings in Philadelphia. Stevenson (2016) noted (and showed) that magistrate judges differed in how punitive they were in bail assignments, which then enabled her to exploit the random assignment of magistrate judges to cases to produce causal estimates of bail assignments and the accompanying pretrial detention on later sentencing decisions. Her instrumental variable analysis revealed that pretrial detention lead to a 13% increase in the likelihood of being convicted, with much of this effect operating through individuals pleading guilty while detained. However, prior to conducting these cleaner and causal estimates for pretrial detention on conviction, Stevenson (2016: 12) found that African-American defendants were “three percentage points more likely to be detained pretrial than Caucasian defendants with similar offense profile, age, gender, and criminal history.”

The majority of these highlighted pieces found strong evidence for minority defendants retaining higher likelihoods of being detained prior to trial. The matched and causal estimates of Lee (2016) and Stevenson (2016), respectively, also reveal that being detained prior to trial increases the likelihood of both conviction and accepting a guilty plea. The conclusion is quite strong from this literature at this point in suggesting that

minority defendants are more likely to receive pretrial detention, and that pretrial detention likewise increases the likelihood of receiving more severe sentencing outcomes.

These results are wholly consistent with the employed theoretical rationale and lend support to the proposed hypothesis concerning disadvantage for minority defendants in terms of pretrial detention. Both theory and the prior literature point to racial disparities favoring whites in pretrial detention.

3.2.2. Race and Diversions

The majority of studies on diversion have focused on diversion programs made available to juvenile offenders to keep them out of the criminal justice system (McGrath, 2008; Ulrich, 2002). There has been comparatively less attention paid to who receives diversion programs from the adult system and how diversion programs are administered disparately by race (Albonetti & Hepburn, 1996; Franklin et al., 2017; Johnson & DiPietro, 2012; MacDonald et al., 2014; Nicosia et al., 2013). Two pieces that comment on and evaluate racial disparities in the administration of diversion programs generally are conducted by Ulrich (2002) and Nicosia et al. (2013). Albonetti & Hepburn (1996) appraises racial differences in deferred prosecution in Phoenix, Arizona. MacDonald et al. (2014) provide a comprehensive lens into racial differences arising in drug treatment commitments as opposed to carceral sentences for drug offenders. Johnson & Dipietro (2012) and Franklin et al. (2017) provide evaluations of intermediate sanctions as a diversionary tool available to judges at the final sentencing stage. These intermediate sanctions involve more involvement with the criminal justice system than probation, but are objectively less intrusive than a custodial sentence (Wood & May, 2003). However,

subjective appraisals of these intermediate sanctions differ substantially by race, as Wood & May (2003) find that black individuals would prefer a jail sentence over many of these alternatives to a custodial sentence whereas white individuals would prefer the intermediate sanction programs.

Ulrich (2002) overviews the use of diversion programs within the Federal system from 1995 through 1999. “In the five-year period between 1995 and 1999, 63 percent of divertees were reported as being white, 28 percent black, and 4 percent Asian. Nine percent of divertees were Hispanic, and 81 percent were non-Hispanic. In contrast, 36 percent of defendants in pretrial services overall during the study period were Hispanic” (Ulrich, 2002: 32). The most distinctive demographic difference observed by Ulrich (2002) was the shift from 33% of regular pretrial services being non-Hispanic white to 54% for those receiving a pretrial diversion. However, Ulrich (2002) found that much of this difference could be explained by differences in offense charges.

Nicosia et al. (2013) provide a case-level analysis of factors predicting assignment to drug treatment diversion programs in the state of California. They’re focus was on differences pre- and post- California’s proposition 36, which mandated that first- and second-time nonviolent drug offenders drug treatment instead of prison. They found statistically significant racial differences in the likelihood of diversion to drug treatment programs with white defendants being more likely than either blacks or Hispanics to receive diversion to drug treatment. This significant racial difference held regardless of the number of controls Nicosia et al. (2013) included in the model or whether they were looking before or after the implementation of California’s proposition 36, though the magnitude of racial differences was greatly reduced following the inclusion of controls.

They also found that the difference between whites and Hispanics was reduced following the imposition of proposition 36, but Hispanics remained less likely to receive a pretrial diversion.

Albonetti & Hepburn (1996) studied racial disparities in prosecutorial discretion to defer criminalization, or divert cases to treatment, in Maricopa County, Arizona. Albonetti & Hepburn (1996) found meaningful interactions between minority status and prior record in the prosecutor's determination of whether to divert a case. In their full model, minorities and those with higher prior records were less likely to receive a diversion, however, they also found a positive interaction term for minority status and prior record. The implications of which, as highlighted by Albonetti & Hepburn (1996), is that minority status does not have as much of an effect once a prior record is in place or, conversely, prior record does not have as much of an effect for those with minority status.

Where Albonetti & Hepburn (1996) focused on prosecutorial discretion in diversions, MacDonald and colleagues (2014) evaluated racial disparities for drug crimes and diversions by judges to drug treatment programs for the state of California. Consistent with much of the extant literature on custodial sentencing, they found that racial differences in prison commitments were reduced by the inclusion of relevant legal factors, but that the racial difference was still significant. Of greater import with regard to diversions, MacDonald et al. (2014) found robust racial differences favoring whites in judicial discretion leading to diversions to drug treatment programs. This racial disparity held in their analyses both before and after California passed Proposition 36, which made drug treatment program diversion mandatory for relevant cases.

Johnson & Dipietro (2012) and Franklin et al. (2017) offer two inquiries into racial disparities in received intermediate sanctions in Pennsylvania and the Federal system, respectively. Both works found minority, particularly young male minority individuals, were less likely to receive an intermediate sanction as compared to either a custodial sentence or a sentence of probation. Johnson & DiPietro (2012) offer an interpretation of “agency on the margins” that coincides with the currently employed rationale of the likely response by minority defendants to reject alternative, or in this case intermediate, sanctions on the grounds of legal cynicism and a potential belief that the criminal justice system is not acting in the minority defendant’s favor.

More research on diversions is still needed to replicate and pin down the magnitude of observed racial differences in this dispositional outcome as well as the exact mechanism underlying these differences. However, the direction of the observed differences reported here suggests a disadvantage for blacks and Hispanics in terms of case diversions – both pretrial and post-trial. These results concerning diversions are consistent with the theoretical rationale and lend some support to the proposed hypothesis concerning racial disparities favoring whites in diversion programs. As with pretrial detention, both theory and the prior literature point to racial disparities favoring whites in diversions.

3.2.3. Race and Dismissals

Similar to diversions, case dismissal is another prominent decision point that is not typically analyzed in sentencing papers. Case dismissal, or the decision to prosecute, was a subject of substantial inquiry in the 1970s and 1980s when data on charging decisions was available in the PROsecutor Management Information System (PROMIS)

(Adams and Cutshall, 1987; Bubany and Skillern, 1975; Cole, 1970; Felkenes, 1975; Forst and Brosi, 1977; Hall, 1975; LaFave, 1970; Neubauer, 1974; Spohn et al., 1987). This literature highlights that cases are typically dismissed or rejected due to issues pertaining to convictability at trial (Spohn et al., 1987). Neubauer (1973-1974:513) notes that, “In Prairie City, the State’s Attorney dominates the charging decision. In reviewing cases, prosecutors employ a fairly stringent evidence standard – is the case likely to win at trial?” Those cases with weaker evidence, uncooperative victims or witnesses, invalid evidence, or inadmissible evidence are most likely to be dismissed (Spohn et al., 1987).

As such, this dispositional outcome could be construed as a corrective process by the court for poor police work. A few studies have proposed the potential for such a corrective process by judges in the juvenile court context (Fagan et al., 1987; Kurtz et al., 1993; Rodriguez, 2007, 2010). Rodriguez (2007, 2010) provide evidence that would seem to support this contention noting a disproportionate number of black juveniles arrested by police, but white juveniles are respectively more likely to be adjudicated. Rodriguez (2010) claims this switch in disparity represents a corrective procedure applied by judges at the back-end of the juvenile sentencing scheme in the light of disproportionate treatment by police. While these studies are focused upon the behavior of actors, primarily judges, in the juvenile court, the same logic can be extended to the behavior of prosecutors in dismissing cases against minority defendants that police brought forward with weaker evidence.

It is important to note that this decision point has not typically been subject to empirical analysis following the discontinuation of PROMIS (Vîlcică, 2012, 2014). There are a few exceptions that have investigated case dismissals with specific regard to racial

differences (Franklin, 2010a; Johnson, 2015; Kutateladze et al., 2014). Vîlcică (2014) notes the recent lack of attention to case dismissals explicitly. “The difficulties encountered by this review in finding dismissal statistics that are consistently reported and distinguish dismissal (at judicial stages) from earlier case attrition underscore the need for more descriptive and exploratory research into this maligned phenomenon in the American criminal courts” (Vîlcică, 2014: 211). Vîlcică (2012) and Vîlcică (2014) offer two direct empirical inquiries with dismissals as an explicit outcome under evaluation using a sample of criminal defendants in Philadelphia, Pennsylvania. However, neither of these studies included race in the model predicting dismissals, though Vîlcică (2014) did include race in a second stage model predicting recidivism as a result of case dismissal.

Franklin (2010) used a subset of the SCPS data to investigate racial, gender, and age differences in case dismissals for felony drug cases. Franklin (2010) did not find any direct effects for race, gender, or age on case dismissals, but did find meaningful interaction effects revealing young black males (18-29) to be significantly more likely to have their case dismissed as compared to white defendants of either gender between the ages of 30 and 39.

Johnson (2015), in a report on adult dispositions using data in Minnesota from 2010-2011, found black defendants were more likely to be “dismissed or acquitted” compared to non-black defendants who were more likely to be “convicted” or receive “interim dispositions.” The adult disposition study by Johnson (2015) was more focused on exploring interim dispositions, and did not offer a more nuanced exploration into case dismissals beyond coupling it with acquittal at trial. This coupling of dismissals with acquittals makes it difficult to directly attribute to the resultant racial difference to the

mechanism of case dismissal, but the pattern of black defendants being more likely to have their case(s) dismissed is consistent here as with the few other pieces that have specifically investigated racial differences in case dismissal.

One of the primary takeaways from Kutateladze et al. (2014) was that black defendants were more likely to have their cases dismissed as compared to white or Asian defendants. The balance of the findings from those studies that do investigate racial differences in case dismissals suggest black defendants are more likely to have their cases dismissed than respective white defendants.

Both theory and the extant literature again agree, but for a relative advantage for black defendants in terms of dismissals. The general supposition for the mechanism underlying case dismissal as noted in the discussion of theory and by those studies utilizing data from PROMIS is that prosecutors dismiss more cases for minority defendants. Whether this is due to a specific corrective procedure or due to heuristics internalized in order to ensure cases that are prosecuted can be convicted or are more likely to be convicted at trial is not clearly established, but the direction and end result is a suggestion of a relative advantage for black defendants in case dismissals.

3.2.4. Race and Guilty Pleas

The plea bargaining process generally involves the defendant foregoing his/her right to trial by accepting a negotiated plea offer from the prosecutor in exchange for accepting guilty for the agreed upon offense (Padgett, 1985). This agreed upon offense will often retain a lesser sentence than what would be received at trial if the defendant were to be convicted and sentenced for the original offense (Forst, 2002). The prosecutor can negotiate a host of factors as part of the plea bargaining process ranging from the

number of charges, the severity of the charges, or even the date of the offense which would impact the associated sentencing guidelines. As noted in the discussion of theory, the prosecution retains enormous discretion in the plea bargaining phase with minimal transparency or oversight for their decision-making (Forst, 2002; Johnson et al., 2016; LaFree, 1985). “Plea bargaining has become the dominant form of case disposition in America” (Johnson et al., 2016: 3). The Supreme Court has also legitimized and justified the use and constitutionality of plea bargaining in a series of cases that extended due process rights and requirements to the plea bargaining process (see *Santobello v. New York*, 1971, and *Missouri v. Frye*, 2012).

Due to the lack of transparency and available data on plea bargaining, there are only a small number of articles available that directly evaluate differences in guilty pleas by race (Albonetti, 1990; Kellough and Wortley, 2002; Kutateladze et al., 2016). However, each of these two pieces find evidence that black defendants are less likely than white defendants to have taken a guilty plea.

Albonetti (1990) treated taking a guilty plea as the immediate outcome of interest and explored legal and extralegal differences in explaining guilty pleas for 464 felonies in Norfolk, Virginia in 1977-1978. Albonetti (1990) found that blacks were 11% less likely to enter a guilty plea than whites. Albonetti (1990) interpreted this reduced rate of guilty pleas for blacks as potentially problematic due to “trial penalties” affording more severe sentences to those convicted at trial rather than through a plea agreement. One of the primary mechanisms argued by Albonetti (1990) toward explaining the racial difference in guilty pleas is that black defendants are likely to have different perceptions of justice than whites wherein they may have less confidence in and/or less trust in the justice

system. This reduced trust in the justice system may then make guilty pleas a more uncertain option for black defendants as opposed to white defendants, thus prompting the decreased rate of guilty plea acceptance. While a compelling mechanism, Albonetti (1990) did not have data to ascertain whether this is the true reason underlying the racial differences in plea bargaining she uncovered.

Kellough and Wortley (2002) analyzed pretrial detention, plea bargaining, and having all charges withdrawn for a sample of over 1,800 criminal cases in Toronto from October 1993 to April 1994. The primary impetus behind their inquiry was to determine if those held in detention prior to trial were then more likely to plead guilty. Their findings support this assessment as those in pretrial detention were significantly more likely to plead guilty. However, Kellough and Wortley (2002) also found some very interesting racial differences that have bearing for the current work. “The first thing that becomes apparent is that the factors that predict guilty pleas also tend to be the factors that predict charge withdrawals—although the direction of these effects are in a completely opposite direction. Independent variables that are positively related to guilty plea tend to be negatively related to charge withdrawals and vice versa” (Kellough and Wortley, 2002: 197). Kellough and Wortley (2002) found that black defendants were significantly less likely to plead guilty than white defendants and likewise more likely to have all charges withdrawn. The reversal in direction for these two results is of great import for the current dissertation focused on evaluating a broader array of dispositional outcomes.

Kutateladze et al. (2016) employed a sample of marijuana misdemeanor cases in New York City to explore racial differences in receiving plea offers and custodial (as

opposed to non-custodial) sentence offers. He and his colleagues found that black defendants were less likely to receive a charge reduction offer and more likely to receive offers including custodial sentences than white or Asian defendants. These differences held while accounting for a host of control factors regarding the charges, prior record, evidence, arrest circumstances, prosecutor characteristics, and defense counsel type. Where Albonetti (1990) evaluated the acceptance of plea offers, Kutateladze et al. (2016) evaluated the offers levied to defendants by prosecutors. The differences by race in these offers from prosecutors, according to Kutateladze and colleagues, hint at the interplay of implicit bias on the part of the prosecutor in putting forth lesser plea bargains to minority and particularly black defendants.

Albonetti (1990) and Kellough and Wortley (2002) offer evidence that black defendants are less likely to have taken a plea deal and Kutateladze et al (2014) offers evidence that black defendants are likely to receive worse plea offers from prosecutors. While admittedly only three studies, these results and their implication for blacks being less likely to plead guilty coalesce with other descriptive works that have not empirically evaluated plea bargaining, but showed racial differences in the aggregate of case processing (see Chen, 2008). Whether the dominant mechanism in explaining racial differences in guilty pleas is through legal cynicism on the part of defendants or implicit bias on the part of prosecutors or a combination of the two remains an open question. The conclusion from this literature and the discussion of theory regarding guilty pleas for the current work is that minority defendants, and black defendants in particular, are less likely to take a guilty plea than white defendants are.

3.2.5. Race and Acquittals vs Conviction at Trial

Not surprisingly, there has been little attention within the extant literature focused upon racial differences with conviction (or acquittal) at trial as an outcome. Trials and case acquittals in particular constitute a rare process and outcome that occurs in an extreme minority of cases compared to the other possible dispositional outcomes. However, there are a handful of studies from the 1990s that look at descriptive overviews for conviction rates (Lerner, 1996; Thernstrom and Thernstrom, 1996; Wilbanks, 1987) and a few articles that explicitly treat case conviction as an outcome for a case-level analysis (Lee, 2016; Owens et al., 2016; Welch et al., 1985). It should be noted that none of these inquiries squarely focused upon conviction as a primary outcome, but included conviction along with several other decision points as outcomes to explore for racial differences either in aggregate or at the case-level.

Lerner (1996) and Thernstrom and Thernstrom (1996) both discuss data collections by different agencies during the 1990s that explored racial differences in conviction rates. Thernstrom and Thernstrom (1996) describe an appraisal of 10,000 accused felons that found 75% of prosecuted blacks and 79% of prosecuted whites getting convicted. Lerner (1996) highlighted a 1996 study by the Center for Equal Opportunity that found that blacks were more likely to be acquitted than whites for 12 of the 14 offenses studied. The two offense categories in Lerner (1996) for which blacks were more likely to be convicted were “felony traffic offenses” and “other crimes against persons.” Both of these works are appraising administrative data in aggregate without statistical controls, but still impart that black defendants are more likely to be acquitted than white defendants.

Unlike the more aggregated analyses presented above, Lee (2016), Welch et al. (1985) and Owens et al. (2016) appraise case conviction or acquittal with case-level data and statistical controls. Lee's (2016) study was previously discussed for its focus on pretrial detention, but she also employed her balanced sample to look for differences in conviction. She did not find any differences by race for this balanced sample on the likelihood of receiving pretrial detention for conviction. However, Lee's (2016) analysis of conviction was looking at conviction by any means as opposed to having a case dismissed or acquitted.

Welch et al (1985) explored racial differences in a host of court processing outcomes for a sample of male defendants from 6 different jurisdictions. With regard to conviction, Welch and colleagues did not find any significant differences between blacks and Anglos with none of the individual estimates for the six jurisdictions reaching statistical significance after incorporating legal controls. They did find significant differences for the Hispanic vs. white comparison with Hispanics being significantly more likely to be convicted in El Paso than non-Hispanic whites.

In a working paper submitted as part of a presentation at the recent Concluding Symposium for the NSF-Research Coordination Network on Understanding Guilty Pleas, Owens et al (2016) also evaluated racial differences in a host of case processing outcomes including conviction. Similar to Welch et al (1985), Owens and colleagues did not find significant differences by race in terms of the likelihood of conviction once legally relevant variables were incorporated into the model. However, they did find an unconditional racial difference that was statistically significant prior to its mediation by the inclusion of the number of charges and prior convictions. This null finding further

held following a counterfactual approach in which Owens et al (2016) applied coefficients derived from a model only using black defendants to then calculate predicted likelihoods of conviction for white defendants. Essentially, Owens et al (2016) applied coefficients from models constructed from one racial group to the other racial groups to calculate effects interpreted in terms of “if white defendants were black” and vice versa.

These pieces do not afford enough evidence to support a firm conclusion regarding racial differences in case acquittal, though the balance of administrative data would suggest that there is a balance toward blacks being more likely to receive an acquittal in aggregate. Case acquittal as opposed to conviction at trial remains an important dispositional outcome to assess for racial differences despite the dearth of attention the literature has given it thus far. As with the discussion of theory, the empirical inquiries into racial disparities in acquittal as opposed to conviction are equivocal. This relative lack of evidence on racial disparities in acquittal could be arising from the aforementioned opposing forces of case strength and implicit bias discussed in the theory section concerning acquittals.

3.2.6. Race and Custodial Sentencing

One of the foremost and consistent findings of the sentencing literature on race concerns the disadvantage black and minority defendants receive in the imposition of custodial or carceral sentences (Bales and Piquero, 2012; Mitchell, 2005; Ulmer et al., 2016). This is the literature highlighted by Baumer (2013) as the “modal” approach to race and sentencing research. Various studies within this approach have provided different magnitudes for the disadvantage experienced by minority defendants in sentencing (Mitchell, 2005), but the direction of the result is generally consistent with

black and Hispanic defendants retaining higher likelihoods of receiving a custodial sentence as compared to similarly situated white defendants (Bales and Piquero, 2012; Baumer, 2013; Spohn, 2015; Ulmer et al., 2016). Much of the work in this area has focused on how the total racial difference in sentencing is alleviated once appropriate controls are accounted for – that the extralegal difference is a product of legal differences (Baumer, 2013; Mitchell, 2005). However, contemporary work using alternative methods reveal that racial differences in the imposition of carceral sentences remain, though reduced, despite controlling for a host of case, community, and court-level factors (Bales and Piquero, 2012; Baumer, 2013; Ulmer et al., 2016).

Mitchell (2005) conducted a meta-analysis of 71 studies that investigated racial differences in a host of sentencing decisions. While Mitchell's (2005) meta-analysis covers a host of sentencing decisions, this review focuses on the relevant findings for imprisonment decisions specifically. For analyses conducted at the state level, the mean odds ratio for blacks vs. whites in the imprisonment decision was 1.28, suggesting black defendants were 1.28 times as likely to receive a sentence of imprisonment as white defendants. For analyses conducted at the Federal level, the mean odds ratio for this same comparison was 1.15, suggesting black defendants in the Federal system were 1.15 times as likely to receive a carceral sentence as white defendants. The highest observed odds ratio was for drug offenses in non-Federal data at 1.4, suggesting that black defendants in state systems charged with a drug offense are 1.4 times as likely to be sentenced to prison as respective white defendants. "In contrast to the no discrimination thesis, the current research found that independent of other measured factors, on average African-Americans were sentenced more harshly than whites" (Mitchell, 2005: 462).

Bales and Piquero (2012) employed precision matching in an effort to discern whether the observed racial and ethnic differences in custodial sentencing were a product of method as opposed to substance. The precision matching approach was a variant of exact matching to elicit what Bales and Piquero considered to be comparable cases for the purposes of then running their overall model. Bales and Piquero (2012) were able to reduce, but could not remove the significant racial differences between blacks and whites in their incredibly large sample of over 1 million Florida cases regardless of control variables or statistical estimation strategy. Their findings with respect to Hispanic vs. white differences varied tremendously from significant disadvantage for Hispanic defendants to significant disadvantage for white defendants. They attempt to reconcile the divergent findings for Hispanic defendants on the grounds of heterogeneity within the Hispanic population in Florida that may be impacting the analyzed samples for the precision matching results.

Ulmer et al. (2016) also investigated racial and ethnic differences in sentencing outcomes, but rather than employ a novel modeling strategy like Bales and Piquero (2012), Ulmer and colleagues focused on the process and the changes to the racial coefficients in the model attending the introduction of control variables to their model. Essentially, Ulmer and colleagues (2016) performed an iterative mediation analysis with regression models retaining increasing vectors of control variables. They used data from the Federal courts and Pennsylvania state courts from 2005-2009 for these purposes. By taking this iterative approach, Ulmer et al (2016) were able to note that the black male effect on prison vs. non-incarceration sentences in Pennsylvania was reduced by 54% after the full inclusion of legally relevant control variables with the respective reduction

for Hispanic males sitting at 26%. For the Federal cases, the black male effect for imprisonment was reduced by 78% after including all of their control variables with the respective reduction for Hispanic males sitting at 73%. Ulmer et al (2016) also used this same approach to find that racial differences in the sentence length decision were almost entirely determined by legally relevant factors. Based upon Ulmer and colleagues' (2016) work, much of the racial differences in receiving a carceral sentence operate through legally relevant factors, but race and ethnicity still have a direct effect upon the imposition of prison sentences in the Pennsylvania and Federal systems.

While not an exhaustive treatment of race and custodial sentencing due to the hundreds of articles in this area, each of these highlighted studies here note substantive and significant differences among blacks, Hispanics, and whites in terms of receiving imprisonment sentences. However, these same studies also showed a reduction, or mediation, of these differences resulting from legally relevant factors such as offense type, number of charges, and prior record (Ulmer et al., 2016).

The net conclusion from these works would suggest that race and ethnicity operate both directly and indirectly in prompting higher likelihoods of imprisonment for black and Hispanic defendants as compared to white defendants. This result is also consistent with the theoretical expectations from focal concerns theory for the final in/out decision.

3.2.7. Dispositional Outcomes Recap

This section has introduced, covered, and appraised racial differences in four dispositional outcomes of diversions, dismissals, acquittals, and custodial sentencing as well as two major process decision points of pretrial detention and guilty pleas. The

extant literature is substantial for pretrial detention, guilty pleas, and custodial sentencing in suggesting Black and Hispanic defendants are more likely to be detained prior to trial, less likely to plead guilty, and more likely to receive custodial sentences than respective white defendants. The literature is considerably less expansive for diversions, dismissals, and acquittals, though the balance or leaning of what literature is present suggests black and Hispanic defendants are less likely to receive a case diversion, more likely to have their case dismissed, and more likely to be acquitted at trial than respective white defendants. The three conclusions for diversions, dismissals, and acquittals are more tenuous than the respective conclusions for pretrial detention, guilty pleas, and custodial sentencing. Nevertheless, these results from the literature review directly parallel the employed theoretical framework and offer some support for most of the current hypotheses. Taken together, these results across these decision points and dispositional outcomes offer a framework for what could present itself in an appraisal of racial differences in case processing across this full range of dispositional outcomes and process decision points.

3.3. Why Study More Dispositional Outcomes?

The previous sections have provided a host of results, studies, and findings on individual dispositional outcomes concerning potential racial disparities, which begs the question of why we should study more dispositional outcomes within a single study. As noted in the race and sentencing literature, this is the direction contemporary, or wave 5, scholars are taking in treating more dispositional outcomes in integrated analyses (Spohn, 2015). Baumer (2013) explicitly calls for this type of research in critiquing the modal class of sentencing research. Further, many of these dispositional outcomes have received

minimal treatment by the literature, with many of these studies further being unable to account for attrition or cumulative processes that could be acting across multiple stages of case processing. This makes it difficult to determine to what extent these produced racial differences are operating in concert or are a resulting product of attrition or decisions made at earlier stages of court case processing.

There are a few studies that provided overviews of case processing evaluated in terms of a broader array of dispositional outcomes (Boland and Sones, 1986; Cohen and Kyckelhahn, 2010; Vera Institute of Justice, 1981). Boland and Sones (1986) present a BJS supported descriptive nature of the processing of all felony arrests. They were primarily concerned with current offense characteristics, though, and did not look at overall differences nor racial differences in case processing. Vera Institute of Justice (1981) report on the processing of felony cases in New York City. Like the BJS report of Boland and Sones (1986), the Vera Institute (1981) does not assess for racial differences and primarily provided cross-tab descriptions looking at offense characteristics and dispositional outcomes. Cohen and Kyckelhahn (2010) provide a descriptive overview of case processing for SCPS data in 2006. They discuss dispositional outcomes for felony cases in terms of what happens to a typical set of 100 felony cases that enter the court, but they do not break this dispositional process down by race or assess for any interaction effects with race.

The death penalty literature has also attempted to understand the process in sanctioning offenders to death (O'Brien et al., 2015; Unah, 2011). However, these pieces only break the process down into two steps: the prosecutor's charging decision and the jury's sentencing decision. However, even with a minimal breakdown in evaluating the

process of punishment for capital cases, O'Brien and colleagues (2015) were then able to determine that most of the racial disparity in administration of the death penalty arose from the prosecutor's charging decisions. Unpacking the process of punishment in the context of the death penalty created a greater understanding of the phenomena than could be gained by looking at individual outcomes on their own.

There is also the aforementioned argument of Feeley (1992 [1979]) concerning the "Process is the Punishment." From his perspective, punishment is more than just the final sentencing outcome for convicted defendants. "If the stigma of the criminal sanction is not viewed as a significant sanction, the concrete costs of the pretrial process take on great significance. When this occurs, the process itself becomes the punishment" (Feeley, 1979: 201). Feeley (1992 [1979]) is highlighting the important issue that there are more punishments in court case processing than just custodial sentencing and the associated sentence length. This raises important questions regarding potential racial disparity in how process punishments are imposed in addition to formal punishments. "Much social science research has followed this lead, searching for the causes of sanctioning at these [final] stages. But this emphasis produces a distorted vision of the process and the sanctions it dispenses. The real punishment for many people is the pretrial process itself; that is why criminally accused invoke so few of the adversarial options available to them" (Feeley, 1979: 241).

In the context of Feeley (1992 [1979]), an evaluation of case disposition across a full range of dispositional outcomes can then highlight aggregate decisions made by race in terms of both formal and process outcomes. With regard to the case disposition outcomes for the current work, diversions would constitute the highest process outcome

according to Feeley, dismissals the least process outcome, cases with pretrial detention would be higher than those without, and those that went to trial would receive more of a process outcome than those that did not. A failure to consider alternative dispositional outcomes that may also relate a degree of “punishment through process” will lead to false or incomplete statements concerning the punitive nature of the courts.

In sum, the dominant methods of the extant literature are moving toward a process-focused or oriented approach as noted by both Spohn (2015) and Baumer (2013). Such an approach also circumvents many of the pitfalls present within the extant literature concerning attrition, case selection bias, and false equivalencies. It also treats several dispositional outcomes that have received sparse attention within the extant literature. Lastly, it directly responds to Feeley’s (1992 [1979]) call to focus on both the process as well as the final sentencing outcome. On all of these grounds, it is imperative that sentencing scholars continue to work toward developing research and methods that allow for analysis of case processing. This is the framework and gap to which the current dissertation seeks to contribute.

4. Current Study

The current dissertation employs the discussed theoretical framework and attempts to address the highlighted gaps from the literature with two distinct methodological lenses for quantifying the relationships between case factors and dispositional outcomes. The first approach is focused upon vectors of dispositional outcomes in order to evaluate racial disparities in predicting dispositional outcome assignment through a case processing decision-making framework. The second methodological approach is directed toward calculating a more descriptive total or cumulative influence of race on custodial sentencing. Treatment of the two research objectives of the current work enables this dissertation to contribute to the field of sentencing research by appraising a broad framework of court case processing developed from focal concerns theory, the liberation hypothesis, and several complementary theoretical mechanisms across a more complete range of dispositional outcomes following a felony charge. This work also contributes to the field by enabling researchers to calculate more comprehensive total racial differences arising from court case processing. Each methodological approach is utilized to treat one of the respective research objectives driving the current work.

4.1. Research Objectives and Hypotheses

As noted in the introduction, the two driving research objectives for the current dissertation are as follows:

1. Evaluate racial disparities in predicting dispositional outcome assignment through a decision-making framework for case processing.

2. Calculate total or cumulative influences of race on custodial sentencing for specific sets of case characteristics.

The first research objective is addressed with the vectors of dispositional outcomes while the second research objective is addressed with the focus on multiplying conditional probabilities across case processing.

The first methodological approach constructs a categorical dependent variable of the respective dispositional outcomes that can be employed with multinomial modeling techniques to evaluate racial disparities arising from court case processing in light of the specific discussions of those outcomes in the reviews of theory and literature, respectively. Using a categorical outcome measure allowed for a simultaneous evaluation of a broader array of dispositional outcomes than what has been done in the adult sentencing literature while also avoiding false equivalencies. As noted previously, analyses of custodial sentencing typically sample on convicted cases and ignore attrition at earlier decision points resulting in an incomplete depiction of racial biases in the court, as selection processes at earlier decision points are excluded. Conversely, analyses of case dismissals or diversions treat all other cases, regardless of eventual disposition, in a “zero” category, inducing a false equivalency and watering down potentially divergent relationships among dispositional outcomes. Both the theoretical and literature reviews make clear that there are likely off-setting racial disparities within court case processing that emerge at different points in the process. This dissertation’s approach employing a vector of dispositional outcomes addresses both of these limitations and can discuss potential racial disparities across the stages of court case processing beyond just the in/out decision.

Alongside the interest in case processing and integrating discussions of theory in the court, the sentencing literature, and the cumulative disadvantage literature in particular, has been looking for a means or method to calculate a parameter that represents the disparity by race in sentencing. This is the focus of the second research objective and the respective methodological approach designed to meet that desire from the sentencing literature. It provides a method to calculate racial disparity arising in the courts that accounts for several possible pathways from felony charges through to custodial sentencing. This is accomplished by plotting out conditional probabilities for each of the included stages of case processing and multiplying these probabilities together toward the final sentencing outcome in a similar process to that of Kutateladze et al. (2014). However, the current work sums up these possible pathways to receiving a custodial sentence to produce a total probability of receiving a custodial sentence. Further, this dissertation performs all of these calculations with exact matching on offense characteristics and prior record to control for those factors explicitly, allowing for a more comprehensive discussion of total differences in custodial sentences by race.

Across both methodological approaches, the discussions from the literature review and review of theory directly apply. Those discussions focused on taking concepts from focal concerns theory, the liberation hypothesis, stereotyping, attributions, implicit bias, and heuristics in application toward building expectations for racial differences within a case processing decision-making framework. Those discussions also lead to a set of concrete hypotheses in the discussion of theory that are reproduced below:

Hypothesis 1a: Black defendants will be more likely to be detained prior to trial than white defendants.

Hypothesis 1b: Hispanic defendants will be more likely to be detained prior to trial than white defendants.

Hypothesis 2a: Black defendants will be less likely to have their case disposed by a diversion program than white defendants.

Hypothesis 2b: Hispanic defendants will be less likely to have their case disposed by a diversion program than white defendants.

Hypothesis 3a: Black defendants are more likely to have their case dismissed than white defendants.

Hypothesis 3b: Hispanic defendants are more likely to have their case dismissed than white defendants.

Hypothesis 4a: Black defendants will be less likely than white defendants to have a case result in a plea deal.

Hypothesis 4b: Hispanic defendants will be less likely than white defendants to have a case result in a plea deal.

Hypothesis 5a: Black defendants will be more likely to have their cases acquitted as compared to white defendants.

Hypothesis 5b: Black defendants will be less likely to have their cases acquitted as compared to white defendants.

Hypothesis 5c: Hispanic defendants will be less likely to have their cases acquitted as compared to white defendants.

Hypothesis 6a: Black defendants will be less likely to receive a conviction without a custodial sentence as compared to white defendants.

Hypothesis 6b: Hispanic defendants will be less likely to receive a conviction without a custodial sentence as compared to white defendants.

Hypothesis 7a: Black defendants will be more likely to receive a conviction with a custodial sentence as compared to white defendants.

Hypothesis 7b: Hispanic defendants will be more likely to receive a conviction with a custodial sentence as compared to white defendants.

These seven hypotheses are reproduced in their entirety from Chapter 2 and also received some support from the extant literature discussed in Chapter 3. An additional set of hypotheses was also derived from the liberation hypothesis that concerns for which case characteristics the first seven hypothesis are to be most heavily supported. These hypothesis are also reproduced in their entirety from Chapter 2 as follows:

Hypothesis 8a: Racial differences will be highest for less serious offenses, particularly drug crimes.

Hypothesis 8b: Racial differences will be lowest for more serious offenses.

Hypothesis 9a: Racial differences will be highest for lower prior record scores.

Hypothesis 9b: Racial differences will be lowest for more severe prior record levels.

Testing of hypotheses 1-7 is accomplished in the first research objective with main effects for the race variables, interaction terms between current offense and race as well as between prior record and race. A second test of hypotheses 1-7 can be produced by calculating relative risk ratios to assess comparisons of combinations of case characteristics that account for both the current offense and prior record levels simultaneously. The overall prediction from hypotheses 1-7 is that black and Hispanic defendants should be more likely to receive a dismissal and a conviction with a custodial

sentence, less likely to receive a conviction without a custodial sentence or a diversion, and either more or less likely to receive an acquittal due to competing theoretical mechanisms at play for that dispositional outcome.

The hypotheses directly related to the liberation hypothesis (hypotheses 8-9) can be addressed with each research objective. As noted, the expectation is to find augmented racial differences in the hypothesized directions in hypothesis 1-7 for those defendants with less serious cases and less severe prior records. These differences are also expected to be further augmented for drug and assault crimes.

4.2. Data

Data for this dissertation come from the State Court Processing Statistics (SCPS) series for the full range of available data from 1990 to 2009.⁶ The SCPS data are case-level data on felony cases where prosecutors filed charges in 71 large urban counties across 21 states.⁷ There are a total of 151,461 cases in this pooled dataset with information available on the defendant, characteristics of the case, and several case processing outcomes including pretrial detention, plea bargaining, conviction, custodial sentencing, case diversion, and case dismissal. The large number of cases and multiple case processing outcomes including case dismissal and diversion make SCPS an ideal secondary data source for the purposes of this dissertation. While data are available on white, black, Hispanic, and “other” defendants, this dissertation only includes data available on white, black, and Hispanic defendants for both methodological simplicity and consistency with the extant literature on race and sentencing. This reduces the pool of cases from 151,461 down to 144,260 cases.

⁶ Data are available for 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2006, and 2009.

⁷ A full listing of all states included in the data and the number of cases per state is available in Appendix 2.

4.3. Variables

4.3.1. Control Variables

The two sets of primary control variables available in SCPS for the employed analyses relate to prior record and characteristics of the current offense. There are nine indicators of prior record available on the defendants including counts of prior arrests, prior felony arrests, prior misdemeanor arrests, prior convictions, prior felony convictions, prior misdemeanor convictions, prior violent convictions, prior incarcerations, and prior times in jail. Each of these indicators is a count from 0 to “10 or more.” This dissertation uses prior arrests as its measure for prior record in all primary models. Sensitivity analyses were also conducted with prior convictions as the indicator of prior record, and those results are available upon request.

The measure for the current offense is the most serious charge against the defendant at arrest for the case.⁸ There are 16 possible categories listed for the most serious charge against defendants at arrest in the SCPS data including murder, rape, robbery, assault, other violent offense, burglary, larceny, motor vehicle theft, forgery, fraud, other property offense, drug sales, other drug crime, weapons, driving related, and public order. Rather than aggregate these charges into property, violent, and drug crimes, this dissertation advocates retaining the full vector of possible charges as a series of dummy variables for the first methodological approach and for exact matching in the

⁸ SCPS also has information on the most serious charge at conviction in addition to the most serious charge at arrest. However, this dissertation uses the most serious charge at arrest due to its sampling point of taking all cases arising from arrest. Only those cases that are convicted or make it to trial would have an indicator for a most serious offense charge whereas those cases that were dismissed and acquitted would have no such information. Thus, this necessitates employing the most serious offense charge at arrest in order to ensure an “apples to apples” comparison is made in terms of the current offense.

second methodological approach to more adequately account for the influence of the current offense.

Two other control variables of gender and age are incorporated by way of sensitivity analyses. All of the models are run in five additional sets: only for the men in the sample, only for the young (under 25), only for the older (25 and up), only for the young (under 25) men, and only for the older (25 and up) men. These models are run separately to aid in discussing the sensitivity of the primary results to these demographic factors. These models and results are available upon request with noteworthy deviations noted in the text where appropriate.

4.3.2. Dispositional Outcomes Included

As noted, information is available on case diversion, case dismissal, pretrial detention, whether a guilty plea was entered, acquittal at trial, and custodial sentencing to jail or prison. However, the information on these decisions and dispositional outcomes does not offer explicit information on the timing of the outcomes with respect to one another.

4.3.3. Documenting Missing Data and Coding Decisions

Table 1 provides an overview of missing data according to the included dispositional outcomes and variables relevant to this dissertation. Roughly 16,253 cases were still pending at the time of SCPS data collection and 334 received an “other outcome.” These cases are removed from the current study leaving 127,673 cases with potentially usable dispositional outcome data. A further 2,658 cases are lost due to a combination of missing data on either conviction or plea and 38 more cases are missing on current offense. An additional 2,505 cases are lost due to missing data on pretrial

detention. Removing all of these cases results in a starting analytic sample of 122,472 for all available states.

[Insert Table 1 Here]

Each indicator of prior record in the SCPS data suffers from serious missing data issues. Roughly 4,267 cases from this analytic sample are missing on all nine indicators of prior record, and a total of 18,216 cases from the analytic sample are missing for at least one indicator of prior record. This missingness on prior record also appears to be related to race as 15.5% and 15.6% of black and Hispanic defendants in the SCPS data are missing at least one indicator of prior record, but only 13.4% of white defendants are missing at least one indicator of prior record. This missingness on prior record along with the right censoring at 10 for each of these measures of prior record led to the decision to employ a categorical measure for prior arrests with four levels: no prior arrests, 1-9 prior arrests, 10+ prior arrests, and missing data on prior arrests. Employing a categorical measure for prior record in this fashion allows for a retention of those cases that are missing data on prior record without assigning any artificial values that would be comparable to observed values (Cohen et al., 2003). However, this approach can inject bias in some analyses (Allison, 2009; Jones, 1996). This bias arises due to correlations between the independent variables with missing values and other fully observed independent variables (Greenwold, 2012). However, the current dissertation interacts each level of prior record with race, minimizing the potential for bias to arise in the model for the primary regressors of import. Indeed, Allison (2009) notes this approach does produce reasonable estimates for standard errors, and that it is only the bias in applications (without interaction terms) that is troublesome. Nevertheless, sensitivity

analyses are conducted with missing data in a separate category compared against listwise deletion based upon missingness on prior arrests. Comparing across the two approaches to handling prior arrests in the models will be informative in terms of identifying and discussing deviations in the model.

Another issue emerges in appraising the individual states in anticipation of controlling for state-level effects in the case-level modeling strategies. According to the SCPS data, several states did not experience one of the dispositional outcomes under study in the current work. These states are noted in the table in Appendix 2 and consist of the District of Columbia and North Carolina that did not have a diversion, and Connecticut and Kentucky that did not have an acquittal. Importantly, this does not necessarily mean that these states do not employ diversions or acquittals, but that the SCPS data at minimum is not capturing these results. Tennessee, Virginia, and Washington also present issues with regard to employed sensitivity analyses with guilty pleas and pretrial detention. Tennessee does not have any usable cases that resulted in no custodial sentencing after a case went to trial. Virginia and Washington do not have any usable cases that resulted in no custodial sentencing after a case went to trial following pretrial detention. With regard to the current work, these states fall outside of the scope of the target for generalization, or inhibit sensitivity analyses, as they do not experience the outcomes of interest. As such, this dissertation proceeds with these limited states as the primary analytic sample consisting of 114,868 cases. This analytic sample is compared to the usable state sample of 122,472 cases in the descriptive statistics section, but all reported analytic results are for the limited state sample that excludes those states that

never experienced one of the studied dispositional outcomes or cannot be used for sensitivity analyses.

4.4. Descriptive Statistics

Tables 2A and 2B provide descriptive statistics for all states and limited states, respectively, for the current offense, the five main dispositional outcomes, and two decision points for those cases that are fully prosecuted in pretrial detention and guilty pleas. The first panel of Tables 2A and 2B provides detailed information on the breakdown of the 16 most serious offense charges in the current offense by race for the analytic samples of 122,472 cases and 114,868 cases, respectively. The largest difference visible by race is for drug sales with 19.16% and 19.02% of felony cases against black and Hispanic defendants respectively and only 11.53% of felony cases against white defendants. White defendants are comparatively more likely to be charged with property and other drug sales charges.

[Insert Tables 2A and 2B Here]

The second panel of Tables 2A and 2B provide descriptive statistics on the dispositional outcomes of diversions, dismissals, acquittals, convictions without custodial sentences, and convictions with custodial sentences by racial group for all states and limited states, respectively. Based upon the descriptive breakdown, several interesting differences emerge. The modal dispositional outcome for each racial group is a conviction with a custodial sentence, but black and Hispanic defendants both appear to be more likely to receive a custodial sentence than white defendants. Black defendants appear more likely to receive a dismissal or an acquittal than white defendants, but also less likely to receive a diversion or conviction without a custodial sentence. It is

important to note that these are aggregated conditional percentages that do not account for the current offense or prior record, though the direction of the observed differences are consistent with the hypotheses of the current work.

Importantly with regard to case dismissal, this does not include initial case dismissal as opposed to acceptance, as the SCPS data samples upon initial case acceptance. Case dismissals in the SCPS data reflect dismissals by the prosecutor or the judge following this initial case acceptance. This does not alter the mechanisms or interpretations for hypothesis 3a and 3b concerning racial disparities in case dismissal, but the magnitude of the disparity may be reduced given the SCPS data does not also capture initial case acceptance. Future researchers will have to disentangle initial case acceptance from later case dismissals.

The third panel of Tables 2A and 2B provide conditional percentages for pretrial detention and entering a guilty plea for the 83,594 cases that were fully prosecuted (i.e., not dismissed or diverted). Black defendants were less likely to plead guilty than either White or Hispanic defendants, but cases that were fully prosecuted were pled over 90% of the time for each racial group. Black and Hispanic defendants appear to be considerably more likely to be held in pretrial detention than respective white defendants. Similar to the descriptive statistics for the dispositional outcomes, the observations here for pretrial detention and guilty plea sync with the extant literature, though caution must be employed again as these are descriptive results without controlling for relevant case factors.

[Insert Tables 3A and 3B Here]

Tables 3A and 3B provide descriptive overviews of prior record levels for all states and the limited states, respectively. In looking over these tables, prior record is clearly related to race. Black defendants are the most likely to have a maximum prior record score, and Hispanic defendants are the most likely to have a missing prior record score. Based upon the missing prior record levels, it's clear that performing listwise deletion will bias the racial composition of the sample. The extent of that bias is revealed by comparing across the two methods for handling missing data.

4.5. Analytic Plan

4.5.1. Methods for Research Objective 1

A variety of techniques designed for multinomial outcomes are used to treat research objective 1. Multinomial logistic regression is an appropriate method for analyzing categorical outcome data, and has recently been employed with juvenile court data to evaluate dispositional outcomes (Cochran and Mears, 2015). Multinomial logistic regression is the baseline, restricted model, for the current work. However, multinomial logistic regression has an important assumption underlying its method of estimation called the independence of irrelevant alternatives (IIA) that warrants further inquiry before accepting the results from the multinomial logistic regression outright. Put simply, this assumption requires that the addition or removal of options to the categorical outcome measure does not affect the relative risks for regressors in the other categories. That is, the relative coefficients/risks for the relationship between regressors for all other categories under analysis should remain unchanged by the removal or addition of another category to the outcome measure.

McFadden (1974) describes an extreme violation of IIA when you have a perfect substitute for one of the categories. McFadden proposes that two-thirds of individuals drive to work while one-third take the red bus to work. This produces an odds of 2:1 between those that drive and those that take the red bus. McFadden then suggests a blue bus is introduced to the decision. Intuitively, we would suggest that following the introduction of the blue bus, two-thirds of individuals would still drive to work with the remaining one-third likely split evenly between the red bus and blue bus. However, this would be a violation of IIA, as the relative risk between driving and taking the red bus has changed by introducing the blue bus! If two-thirds are still driving and one-sixth are taking the red bus, then the odds between the categories has changed to 4:1. In order for IIA to hold in this example, one-half of individuals would have to drive to work with one-fourth taking the red bus and one-fourth taking the blue bus. This would then retain the original odds of 2:1 between driving and taking the red bus.

To be fair, the previous example is quite extreme in presenting an obvious substitutability violation of IIA. This classic example from McFadden has been highlighted as being too extreme and divorced from subtler violations of IIA in practical applications. As a piece of general advice, McFadden (1974) noted the multinomial logit model should only be used when the outcome categories “can plausibly be assumed to be distinct and weighed independently in the eyes of each decision maker.” The emphasis in McFadden here, and by others, is that the categories in the outcome should be as

independent and dissimilar as possible. The more dependent the categories are, the more likely violations of IIA are present.⁹

We can also see how this would be the case in appraising court case processing. The vector of dispositional outcomes does not have truly independent categories. There are dependencies built into the case sequence that impart that they are not independent. A case that was dismissed never had the ability to be convicted or receive a custodial sentence. Conviction, acquittal, and custodial sentencing can only arise once a case is prosecuted. Custodial sentencing can only happen once a case is convicted. There is a clear nested structure to the dispositional outcomes that implies a likely violation of IIA. The consequences of violating that assumption are potentially misspecified relationships between regressors and outcome categories. The direction and magnitude of these errors can only be fully understood via comparisons to alternative methodologies.

However, these consequences are only of concern if the assumption is violated within the SCPS dataset, thus biasing the results. As such, in light of these potential consequences, multinomial logistic regression remains the baseline restricted model

⁹ To explain, if outcome categories are dependent, then violations of IIA will also follow without requiring perfect substitutability. The most recent presidential election offers a compelling example of this. Jill Stein (Green Party), Gary Johnson (Libertarian Party), Hilary Clinton (Democratic Party), and Donald Trump (Republican Party) were all in the race against one another. Voters were left with having to choose one of these four candidates for president. Donald Trump won the election in many swing states unexpectedly. Both Stein and Johnson received more of the vote than initially expected in these swing states, with many commentators noting those votes likely would have otherwise gone to Clinton if Stein and Johnson were not in the race. Assume state A had 48.1% of the vote go to Trump, 47.9% of the vote to Clinton, 3% of the vote to Stein, and 1% of the vote to Johnson. Neither Stein nor Johnson is a direct substitute for Clinton, but it is possible many voters were primarily “not voting Trump” and would vote for Clinton if alternatives were not available. This suggests that those who picked the legitimate alternative choices of Stein and Johnson would not have split evenly between Trump and Clinton, which is another violation of IIA. The consequences of the violation in this instance is clear in that a head-to-head comparison between Clinton and Trump produces a different winner than a best of four competition. The relationship and ratio between the votes for Clinton and the votes for Trump changes based upon the inclusion or exclusion of the additional candidates of Stein and Johnson. This election example makes clear the potential consequences of violations of IIA in applying multinomial logistic regression: misspecification. The relationship among the categories and the regressors will be misspecified in the face of violations of IIA.

against which alternative models are compared. Should the results substantially and substantively deviate across these models (without incurring convergence or other estimation issues), then the IIA assumption can be concluded to be violated and the multinomial logistic regression model will be displaced in favor of the alternative models.

These alternative models are multinomial probit and nested logistic regression. Both of these alternative models do not make the same IIA assumption that multinomial logit makes. Instead, they allow for and model relationships among the disturbance terms in the stacked regression so that the overall analysis is no longer, or less, sensitive to the removal or addition of categories. Multinomial probit models estimate a covariance structure for the error terms for the relationships among the categories in the outcome measure. Importantly, the *mprobit* command in STATA does not perform this computation, and instead assumes that the disturbance terms are independently and identically distributed in a similar fashion to multinomial logistic regression. As such, the *mprobit* command also retains the IIA property. As such, the alternative specified multinomial probit model was attempted, as it allows for estimation of the covariance terms. However, this computation calculates covariances for each error term, covariance between error terms, and covariance between covariances between error terms, etc. until all possible combinations are estimated. This is comparable to performing an additional level of integration for each additional level of the outcome category added. This model failed to converge with a subsample of the employed data and a single regressor. Indeed, some authors have found the computational difficulty of the alternate specified multinomial probit model leads to it producing more heavily biased results than those of a

multinomial logistic regression model in the face of a designed IIA violation (Kropko, 2008).¹⁰

An alternative model that was estimable with the current data was nested logistic regression. Nested logit models can be estimated with the *nlogit* command in STATA that allows for some of the outcome categories to be more closely related to one another in its estimation. The *nlogit* command requires a specification of a decision-tree structure that provides the relationship(s) among the outcome categories. This structure is then estimated sequentially moving down the tree toward the final outcome categories.

We can identify some categories in court case processing outcomes that will be more highly related to one another than the rest of the possible dispositional outcomes. Acquittals and dismissals may be proximate substitutes in terms of strength of evidence or convictability of a case. Convicted cases (with or without custodial sentencing) likewise will be more similar to one another than acquittals or dismissals in terms of strength of the evidence. In addition to relationships among the existing categories, an IIA violation can also manifest by the inclusion of an additional category. This has already happened within some contexts by way of intermediate sanctions as an alternative to either probation or incarceration. The ratio of convicted defendants receiving incarceration to convicted defendants receiving probation was not the same following the introduction of intermediate sanctions. The consequence is that the original conclusion regarding the ratio and relationship between convictions with a custodial sentence to

¹⁰ Kropko (2008) conducted simulation analyses to compare the multinomial logistic regression model with the multinomial probit model in the face of violations of IIA. He only used an outcome with three categories for this inquiry. However, he found the bias resulting from computational difficulty and finding local maxima for the multinomial probit led to the multinomial logit being less biased. One of the target estimates was a residual variance term set to 1, which the multinomial probit model then estimated to be over 2,000 once it converged. As such, it was and is unsurprising that the multinomial probit model failed to converge for the current work.

conviction without a custodial sentence may no longer be valid if conviction with intermediate sanctions is added. The dependency of the decisions in case processing in addition to the potential substitutability of some of the dispositional outcomes warrant an investigation into the impact of IIA causing misspecified, or biased, differences in estimation.

As noted, this inquiry into alternative models is to test a restrictive assumption of IIA that may be influencing and possibly biasing resulting findings from the multinomial logistic regression analyses. While secondary to the current dissertation, the issue of IIA has relevance for a host of applications in criminology beyond court case processing and dispositional outcomes and represents a potential methodological contribution to this dissertation. Once IIA is treated, a proper assessment of racial differences in the broader range of dispositional outcomes with direct testing of the liberation hypothesis and focal concerns theory can take place.

This testing of the vector of dispositional outcomes is primarily focused upon an outcome vector coded as (0-diverted; 1-dismissed; 2-acquitted; 3- convicted without a custodial sentence; 4- convicted with a custodial sentence). The reference category employed for estimation is “1-dismissed,” but all pairwise comparisons of case outcomes are produced from this single model in order to properly assess for racial disparities across the case process.¹¹

¹¹ Sensitivity analyses were attempted with a vector of outcomes that directly incorporated pleading guilty (seven categories) and pretrial detention (twelve categories). However, these models failed to converge due to cell size issues and the volume of parameters estimated in these models. Attempts were made with limited parameters by removing fixed effects and with starting values obtained from the primary model, but the data are not ideally suited for addressing these sensitivity analyses. As a result, discussions of differences in the pairwise comparisons from the primary model must be interpreted in light of not accounting for pretrial detention and guilty pleas.

The focus of the inquiry is on both the coefficients from the multinomial logistic regression models and the calculated relative risk ratios from this same output. The relative risk ratios are calculated through linear combinations of the coefficients in the model. Given the reference group of public order crime and no prior record, these relative risk ratios can be interpreted as the relative difference in disparity between a set of case characteristics and those cases with a public order crime charge and no prior record. These values are calculated through a combination of the main coefficient on race added to respective interaction terms for the current offense charge and prior record under consideration. This allows for a more comprehensive appraisal of racial disparities that can be interpreted more substantively than the respective coefficients on numerous interaction terms from the multinomial logistic regression coefficients.

In order to ensure that the results from the pooled analysis are not biased due to a higher order process operating across states to generate part or all of the observed racial disparities, a sequence of modeling approaches are employed before turning to the nested logistic regression alternative model. First, the multinomial logistic regression is run for all states without any controls included for states, but with fixed effects for time. Second, the same multinomial logistic regression is performed, but only for the limited set of states that experienced all of the dispositional outcomes. Third, this multinomial logistic regression with the limited states then incorporates state fixed effects. As an added sensitivity, individual multinomial logistic regression models are run for each state individually for those dispositional outcomes that were experienced. All of these results are compared against pooled models that only consider one dispositional outcome at a

time to demonstrate the strength of the employed approach that avoids false equivalencies.

4.5.2. Methods for Research Objective 2

The sentencing literature has looked into numerous means for trying to calculate the total or cumulative effect of race (Kutateladze et al., 2014; Spohn, 2009; Stolzenberg et al., 2013; Wooldredge et al., 2015), the second research objective of this dissertation. The approach taken calculates racial disparity in the courts while accounting for several possible decision points and dispositional outcomes. This approach involves plotting out each of these decision points, calculating the respective conditional probabilities by race for each of these stages in case processing, and then multiplying these conditional probabilities together to compute a descriptive total probability for receiving a custodial sentence through several pathways. This is a very similar approach to one of the many approaches employed by Kutateladze et al. (2014) where they calculate the probabilities associated with combinations of dispositional outcomes. However, where Kutateladze et al. (2014) end with the discussion of these conditional probabilities in aggregate for individual pathways for specific dispositional outcomes, the current work is focused upon summing several of these pathways toward producing a total probability of receiving a custodial sentence for charged felony cases. Figure 1 presents these pathways and conditional probabilities by race for the analytic sample of 114,868 cases through to their final dispositional outcomes.

[Insert Figure 1 Here]

As shown in Figure 1, there are four pathways from a felony charge to a custodial sentence. One is following pretrial detention and a guilty plea (A), one is with pretrial

detention and a conviction at trial (B), one is without pretrial detention and with a guilty plea (C), and the last is without pretrial detention and a conviction at trial (D).

Calculating the probabilities for the respective pathways is achieved according to the following equations:

$$P(A) = P(CS|PLEA) * P(PLEA|PD) * P(PD|PRO) * P(PRO) \quad (3)$$

$$P(B) = P(CS|CONV) * P(CONV|PLEA') * P(PLEA'|PD) * P(PD|PRO) * P(PRO) \quad (4)$$

$$P(C) = P(CS|PLEA) * P(PLEA|PD') * P(PD'|PRO) * P(PRO) \quad (5)$$

$$P(D) = P(CS|CONV) * P(CONV|PLEA') * P(PLEA'|PD') * P(PD'|PRO) * P(PRO) \quad (6)$$

Where A, B, C, and D denote four pathways toward receiving a custodial sentence highlighted above. CS denotes custodial sentence, PD denoted pretrial detention, PLEA denotes a guilty plea, CONV denotes convicted at trial, and PRO denotes prosecution. An apostrophe next to any of these terms denotes “not” or that the associated outcome was not experienced. Equation 3 notes the probability of following path A is the probability of prosecution multiplied by the probability of pretrial detention given prosecution multiplied by probability of a guilty plea given prosecution multiplied by the probability of a custodial sentence given a guilty plea. The result from equation 3 is the probability of receiving a custodial sentence after a guilty plea and pretrial detention.

Equations 3-6 represent the four pathways in the current work by which a defendant can receive a custodial sentence. Adding these four probabilities together, thus, provides the total probability of receiving a custodial sentence in this dissertation as shown in equation 7. These calculations for the overall total probability and the probabilities associated with the individual pathways can also be calculated while conditioning on race.

$$P(CS) = P(A) + P(B) + P(C) + P(D) \quad (7)$$

$$P(CS|black) = P(A|black) + P(B|black) + P(C|black) + P(D|black) \quad (8)$$

$$P(CS|hispanic) = P(A|hispanic) + P(B|hispanic) + P(C|hispanic) + P(D|hispanic) \quad (9)$$

$$P(CS|white) = P(A|white) + P(B|white) + P(C|white) + P(D|white) \quad (10)$$

$$P(A|black) = P(CS|PLEA, black) * P(PLEA|PD, black) * P(PD|PRO, black) * P(PRO, black) \quad (11)$$

$$P(A|white) = P(CS|PLEA, white) * P(PLEA|PD, white) * P(PD|PRO, white) * P(PRO, white) \quad (12)$$

$$P(A|hispanic) = P(CS|PLEA, hispanic) * P(PLEA|PD, hispanic) * P(PD|PRO, hispanic) * P(PRO, hispanic) \quad (13)$$

Equations 8-10 provide the probability of receiving a custodial sentence conditioned by race. Equations 11-13 provide the probabilities of receiving path A to a custodial sentence conditioned by race. Though not shown, conditional probabilities by race for receiving paths B, C, and D to a custodial sentence can also be calculated in a similar fashion.

While Figure 1, and the previous discussion concerning pathways A, B, C, and D, provide the conditional probabilities by race for the overall sample in a similar fashion to Kutateladze et al. (2014), this analysis goes beyond the aggregate conditionals by employing exact matching on the current offense and prior record. Separate probabilities for each of the described pathways are calculated 192 times (16 current offense charges by 3 races by 4 levels of prior record) and summed to produce a total probability of receiving a custodial sentence for each cell. Table 4 provides an empty table with headers that would be completed for each of the three primary races in the current study.

[Insert Table 4 Here]

Testing for racial disparities involved the conditional probabilities by race in three sequences. The first sequence assesses for an overall racial difference in testing whether the probability of receiving a custodial sentence given black or Hispanic is greater than

the probability of receiving a custodial sentence given white. This is completed with the conditional probabilities provided in Figure 1. The second sequence conditions on both race and the current offense. The third sequence conditions on race, the current offense, and prior record toward the framework laid out in Table 4. A standard test of proportions can be used for any comparison between black and white or between Hispanic and white defendants as long as the comparison is within a single cell of Table 4.

This procedure provides a metric for depicting total racial disparity in the court process and allows for an assessment of the liberation hypothesis in appraising for greater racial differences for lesser offenses and more extensive prior records. This assessment of the liberation hypothesis can be conducted on the results from the second and third sequence, also shown in equations 14-16:

$$P(CS|black, lesser\ offense) - P(CS|white, lesser\ offense) = \alpha \quad (14)$$

$$P(CS|black, serious\ offense) - P(CS|white, serious\ offense) = \gamma \quad (15)$$

$$\alpha - \gamma \quad (16)$$

If $\alpha - \gamma$ is statistically significantly greater than zero, then the liberation hypothesis is supported as the racial disparity for lesser offenses would be found to be higher than the racial disparity for more serious offenses. This procedure is also employed across different levels of prior record to test focal concerns theory.

However, due to the high number of tests being performed, the Bonferroni correction (Bonferroni, 1936) is employed to create an adjusted threshold for achieving proper statistical significance in the face of an inflated probability of a Type I error. The Bonferroni correction exerts a penalty that increases with each additional statistical test. Accordingly, given that there are 192 statistical tests comparing across the three racial groups in Table 4, and wishing to retain an overall alpha of 0.05 for finding at least one

significant result, the calculations for alpha for each individual test follows in equations 17 through 21.

$$P(\text{at least one significant result}) = 1 - P(\text{no significant results}) \quad (17)$$

$$0.05 = 1 - (1 - \alpha)^{192} \quad (18)$$

$$1 - \alpha = .95^{\frac{1}{192}} \quad (19)$$

$$1 - \alpha = 0.99973 \quad (20)$$

$$\alpha = .000267 \quad (21)$$

According to these calculations, the alpha that must be used for each individual test is 0.000267 in order to maintain an overall alpha of 0.05 for finding at least one significant difference. A power analysis conducted in G*Power 3.0.10 with this alpha level and a beta of 0.80 prompts that each group in the comparison should have a sample size of 152 or more in order to be sufficiently powered.

Sensitivity analyses are also utilized with this approach to demonstrate variations in the respective total racial difference in custodial sentence depending upon the chosen sampling point. That is to compare the total racial difference in custodial sentencing for felony charges to that calculated for those cases that were prosecuted or those cases that were convicted. Variation across these calculations would demonstrate the sensitivity of the total racial disparity to the sampling point, and further confirm the highlighted concern of Baumer (2013) regarding the modal form of race and sentencing research that samples on convicted cases.

4.5.3. Alternative Methods Not Chosen

In selecting the current methodological approaches for this dissertation, there were several alternative modeling approaches that were considered, but ultimately

rejected. In the interest of transparency and further justifying the chosen methodological approaches, these alternative models will now be discussed in addition to the rationale for their rejection for this work. These alternative methods include decision tree modeling, structural equation modeling, markov processes, and selection models.

Decision tree modeling would otherwise seem to be a fruitful and valid means of appraising court case processing based upon the depiction in Figure 1 of a tree for case processing. However, decision tree models require full information on cases through to a final outcome measure that is then used to split the sample (Liu et al., 2011; Myles et al., 2004). Decision tree modeling is not designed to handle attrition or selection processes, but instead focused upon moving backward from a given outcome to identify the paths that resulted in the respective outcome (Myles et al., 2004). As such, decision tree models are not employed within the current analysis as there is not a single binary outcome that is observed for all cases. Creating such a binary measure would require inducing false equivalencies into the data by coding acquitted, dismissed, and diverted cases as a “zero” for custodial sentencing. This is problematic as this treats cases that were convicted and did not receive a custodial sentence as equivalent to these diverted, dismissed, and acquitted cases. There is no way of knowing if that would be the given outcome for these cases if they were to have been convicted.

A similar problem arises in the application of structural equation modeling (SEM). SEM, like decision tree modeling, requires cases to be fully observed on all employed variables in order to calculate direct and total effects through to the given outcome measure (Bollen, 1989). This prompts the same issue with decision tree modeling in terms of how to classify or code dismissed, diverted, and acquitted cases.

This likely explains why Wooldredge et al. (2015) sampled on convicted cases in their study to avoid having to treat these issues of differential attrition and selection. As a result, SEM is problematic for the current inquiry into a broader range of court case processing outcomes alongside decision tree modeling.

A markov process model also does not appear appropriate for the current context. This modeling technique is ideal for models with repeated decisions or observations that allow for an evaluation of “memory” within a system process (Burton and Spilerman, 1976; Loughran et al., 2017). However, this is not present within the current context as each decision point only happens once with potential disposition, or termination, of a case at any point. This would be a highly relevant and useful method for analyzing a case docket for a prosecutor or judge to determine if there is memory in the dispositions of successive cases. While interesting, it is outside of the scope of the current analyses that does not have information on prosecutors, dockets, or case ordering.

The discussed concerns for both decision tree models and SEM relate to selection processes in case flow. This sparks a natural association or potential for selection models, and many sentencing scholars have employed the Heckman model (Heckman, 1979; Bushway et al., 2011) or alternative selection models (Amemiya; 1985; Montmarquette et al., 2001; Smith and Paternoster, 1990). However, these selection models require that an exclusion criterion be specified in order for the models to converge appropriately (Bushway et al., 2011). Scholars have had trouble finding a factor that is related to selection in case processing, but unrelated to the final sentencing decision. Bushway et al. (2011) suggest strength of evidence may meet such a threshold, but that, too, has issues both in measurement and whether it is still related to final sentencing outcomes. When

applied to the current work, however, typical Heckman correction models are not appropriate given the multiple stages of attrition in case processing clear from Figure 1. Amemiya (1985) explicitly mentions a model that incorporates multiple selection points, but then dismisses it with a further discussion of these models due to their being methodologically cumbersome. Several econometrics articles discussing a parallel bivariate probit with selection model note that the overall class of models is not well understood (Greene, 2005; Lee, 1983). This lack of direction from the econometrics literature on selection coupled with interests in parsimony, retaining multiple dispositional outcomes, and no feasible exclusion criteria for the multiple points of case attrition led to the two methodological lenses employed in the current dissertation.

5. Results for Research Objective 1

As noted previously, the first research objective is focused upon evaluating racial disparities across a broad range of dispositional outcomes without inducing false equivalencies into the respective comparisons. The results from this inquiry can join the constructed theoretical rationale to aid in guiding future research aimed at understanding the process and more dispositional outcomes arising from the court.

The primary model employed to treat this research objective and appraise racial disparities across the discussed range of dispositional outcomes is a multinomial logistic regression. As noted previously, a multinomial logistic regression allows for pairwise comparisons among the outcome categories that do not induce false equivalencies into any of the individual comparisons. Thus, a multinomial logistic regression allows for an assessment of racial disparities in comparing a multitude of outcome categories toward discussing the role of discretion and the incorporated theoretical framework in more dispositional outcomes.

The primary model discussed in the greatest level of detail here is the multinomial logistic regression with the five-category outcome measure (diversion, dismissal, acquittal, convicted without custodial sentence, and convicted with a custodial sentence). All of the pairwise comparisons are performed for this model to assess differences among all comparisons of the outcome categories. This limits the impact of an otherwise arbitrary reference category and ensures that all possible relationships are evaluated. This primary model regresses the outcome categories on race (black and Hispanic with white as the reference category), 15 dummy variables indicating the most serious offense charge at arrest (public order crimes is the reference category), three dummy variables

indicating the level of prior arrests for the defendant (some, max, and missing with no prior arrests as the reference category), and interaction terms between both black and Hispanic with each indicator for the current offense and prior record. Public order crimes and no prior arrests are employed as the reference group for this model as those case characteristics would represent the least serious offense and prior record level for a case arriving in the SCPS dataset. These would be cases that would then allow the highest level of discretion, and would then aid in assessing the hypotheses from the liberation hypothesis concerning differences from less and more serious offenses. This model, and all related multinomial models, also include both state and year fixed effects.¹²

Before going into the specific results from the multinomial logistic regression models, several models for the purpose of comparison are presented. These models employ logistic regressions for each individual dispositional outcome against all other outcomes. These results intentionally inject a false equivalency into the reference category, and thus mimic many of the modeling approaches in the extant literature concerning a single dispositional outcome versus anything else (see Spohn, 2000b). Comparing the results from these individual models to those of the overall multinomial logistic regressions will empirically demonstrate the need to avoid false equivalencies in appraising racial disparities in dispositional outcomes. The results from these individual logistic regressions are presented in Tables 5A-5F.

[Insert Tables 5A-5F Here]

¹² Both state and time fixed effects were found to be statistically significant contributors to the model on the basis of likelihood ratio tests between the unrestricted models without the fixed effects and the restricted model with fixed effects. This statistical significance joins substantive concerns on the impact of state-level processes that may be impacting racial disparities (Johnson, 2006; Spohn & DeLone, 2010). As such, state and time fixed effects are retained for both primary and sensitivity models

The results in Tables 5A-5F provide information from the five separate logistic regression models in a sequence of panels. The first column of each table or panel provides log odds coefficients and respective standard errors from the logistic regression of diversions against anything else. The second column provides results from the logistic regression of dismissals against anything else. The third, fourth, and fifth columns provide similar operations and log odds coefficients from logistic regressions of acquittals, convictions without custodial sentencing, and convictions with custodial sentencing, respectively. Given the volume of parameter estimates in each model, the tables are broken up based upon relevant sets of log odds coefficients. First, the main effects of race are presented, then interaction terms between race and the current offense, then interaction terms between race and prior record, and finishing with main effects for the current offense and prior record level. Coefficients for the fixed effects are not included in the tables, though fixed effects are included in each presented model.

Standard two-tailed denotations of significance of 0.05, 0.01, and 0.001 are employed for these and all following tables for the first research objective. However, those values that are significant at 0.001 are put in bold to draw greater attention to these particular significant findings. This additional formatting is incorporated, as there are a great number of coefficients estimated in these models, prompting greater emphasis upon those findings that are statistically significant at the more conservative threshold for statistical significance. This pattern is likewise performed for all of the tables that follow for the first research objective.

The results in Tables 5A through 5F offer a few specific trends or patterns overall. The main effects of race are not significant for comparisons other than a custodial

sentence versus anything else, and those values are not statistically significant at 0.001. The stronger racial differences are observed for the interaction terms on the current offense and prior record. These interaction terms impart increased likelihoods for blacks as opposed to whites of receiving a dismissal and a reduced likelihood of receiving a custodial sentence for most of the included arrest charges as compared to public order crimes. Two important exceptions to this trend lay in drug sales and other drug arrest charges retaining a further higher likelihood of receiving a custodial sentence for blacks over whites as compared with public order crimes. The pattern of results for interactions of race with most serious arrest charges was fairly consistent between black/white and Hispanic/white comparisons. Consistent with the liberation hypothesis, increased prior record levels lead to reduced disparities between minorities and whites for receiving a custodial sentence.

This is by no means an exhaustive interpretation of the volume of results displayed in Tables 5A-5F. All of these specific results are available within the tables. This work only focused on specific patterns that will be relevant for later comparisons and interpretations in light of the employed hypotheses and differentiating findings from models that do and do not induce false equivalencies. With this respect, it is important to keep in mind that every result thus far from these logistic regression analyses induced false equivalencies into the comparison group that could be obfuscating underlying processes between and among the dispositional outcomes under study.

The second set of results is from a multinomial logistic regression that does not induce this false equivalency into the reference category. The same schema for displaying the results for the logistic regression models of individual outcomes is employed for the

output from the single multinomial logistic regression with results provided in Tables 6A-6L. Tables 6A-6L provide the coefficients and respective standard errors for race, interactions of race with the current offense and prior record, and main effects for the current offense and prior record dummy variables. All of these coefficients remain in terms of log-odds, similar to the logistic regression coefficients, for membership in one of the outcome categories compared to the other outcome category for each respective pairwise comparison. Each column denotes a respective pairwise comparison between two of the five evaluated outcome categories – there are 10 columns for each set of values split into two separate tables to display all possible pairwise comparisons. The first two tables provide the main coefficients for race. The next four tables provide the coefficients for interactions of race with the most serious offense charge. The two tables following these interactions also provide coefficients for interactions, but between race and prior record indicators. The final four tables afford main coefficients for the current offense and prior record indicators. Similarly to the results for the logistic regression models, coefficients for the state and time fixed effects are not presented in the interest of parsimony, but those factors were included in all presented models.

[Insert Tables 6A-6L Here]

The primary advantage of the multinomial logistic regression is the employed ten comparisons as opposed to only five within the individual logistic regressions in Tables 5A-5F. Where the logistic regressions provided a positive and significant main effect of race for custodial sentences versus anything else, the multinomial logistic regression provides a more detailed appraisal. Not all of the main effects of race, or the racial difference for public order crimes, for custodial sentences as compared to other

dispositional outcomes are statistically significant – only those for custodial sentences as compared to dismissals for both racial comparisons and custodial sentences as compared to non-custodial sentences for Hispanics as compared to whites. Importantly, the comparisons between custodial sentences and diversions and between custodial sentences and acquittals were not statistically significant. In fact, the estimate for Hispanics for custodial sentences against acquittals is now a different sign.

Moving to the interaction terms, similar information is gained by performing comparisons between the individual dispositional outcomes. The negative interaction terms for black vs white with most serious offense charges in comparisons between no custodial sentence and dismissals parallels the results from Table 5B for dismissals as compared to anything else. The sign on the coefficients between the two columns are reversed due to a change in reference group for dismissals. However, commensurate differences are not observed for diversions or acquittals as compared to dismissals for these interaction terms. Most of the significant differences in Table 6C and Table 6D are for drug sales, other drugs, and driving related charges. Similar patterns are observed for Hispanics vs whites as those present for black vs whites. However, where black and white comparisons were robust for drug sales, other drug charges, and driving related charges, Hispanic and white disparities are strongest for drug sales only.

The log-odds coefficients presented and discussed from Tables 6A-6L are an accurate depiction of the results from the multinomial logistic regression model, but they can be cumbersome to directly interpret in terms of both log-odds and with the volume of included interaction terms. As such, relative risk ratios for linear combinations of coefficients were calculated to provide a more parsimonious means of appraising the

results. To explain, the main coefficient on race and the interaction terms between race and specific current offense and between race and prior record levels are combined to produce odds ratios for that combination of case characteristics to be compared directly.¹³ These results are easier to interpret, as they are akin to relative odds ratios imparting the relative likelihood of receiving a particular disposition as opposed to another for a set of specific case characteristics. Tables 7A-7L provide these results for all combinations of race, most serious offense charge, and prior arrest levels. I will now use a maximum prior arrest level and the most serious offense charge of burglary as a working example to both specifically demonstrate how the relative risk ratios were calculated and offer a substantive interpretation. The statistically significant relative risk ratio of 0.7744 for max prior record, black vs white, and the current offense of burglary imparts that black defendants are 0.7744 relative times as likely as whites to receive a custodial sentence as opposed to a dismissal when they have a max prior arrest record and their most serious offense charge was burglary as compared to having no prior record and a most serious offense charge of public order crimes. This can also be interpreted as the disparity between blacks and whites for custodial sentence as compared to a dismissal is 0.7744 times that of no prior record and public order crimes when the current offense is burglary and the defendant has a maximum prior arrest. Each of the other values in these tables can be interpreted in a similar fashion in terms of relative risk ratios for the top outcome category vs. the comparison category for the given racial comparison using the set case characteristics.

¹³ For the working example for black vs. white comparisons with a maximum prior arrest level and a most serious offense charge of burglary, this involves combining the main effect of black with the interaction term of black and max prior arrest and the interaction term of black and burglary.

[Insert Tables 7A-7L Here]

There are several general patterns for the findings that can be pulled from Tables 7A-7L that also speak to the hypotheses for the current dissertation. In essence, each of these relative risk ratios are simultaneously testing two of the hypotheses among hypotheses 2, 3, 5, 6, and 7. Hypothesis 2 predicted a decreased likelihood of diversions for minority defendants while hypothesis 3 predicted an increased likelihood of dismissals for minority defendants. Those relative risk ratios for diversions as compared to dismissals that are less than 1 are consistent with the combination of hypotheses 2 and 3, as minority defendants should be doubly less likely to receive a diversion as compared to a case dismissal. The same logic can be applied to each of the other respective pairwise comparisons. Hypotheses 5a, 5b, and 2 combine to provide a two-tailed prediction for pairwise comparisons of acquittals against dismissals. Hypotheses 6 and 2 combine to produce an augmented effect expecting ratios less than 1 for no custodial compared against dismissals. Hypotheses 7 and 2 offset in expectation, and the direction here would impart the relative strength of disparities favoring custodial sentence as compared to dismissals.

With driving crimes as the exception, the relative risk ratios against dismissals are less than 1 for diversions, no custodial sentence, and custodial sentences. The relative risk ratios for acquittals as compared to dismissals, however, are generally greater than 1. As noted, this pattern imparts the direction for comparisons of relative disparity between the case characteristics listed and public order crimes with no prior arrests. Values less than 1 indicate a minority-white disparity for the primary outcome category against the reference outcome that is greater for public order crimes than for the case characteristics

listed. Values greater than 1 indicate a minority-white disparity for the primary outcome category against the reference outcome that is greater for the listed case characteristics than for public order crimes with no prior record. The general findings compared against dismissals are consistent with the employed hypotheses with the exception of driving related crimes.

The following comparisons are also consistent with the employed hypotheses with the notable exception of fraud charges that appear to be more likely to result in a diversion than a custodial sentence or a non-custodial sentence. Driving related charges also continue to run counter to the hypotheses of this dissertation for these latter pairwise comparisons. Interestingly, the only comparison that appears to favor minority disadvantage in the receipt of custodial sentences is the relative comparison for custodial sentences against non-custodial sentences – the more typical comparison employed in the race and sentencing literature. The exception to this trend are drug sales and other drug charges for black-white comparisons and drug sales for Hispanic-white comparisons. The implication is that there is a meaningful racial disparity for custodial sentencing, but it comes in comparison against non-custodial sentences and/or for drug crimes, not necessarily for any charge against any dispositional outcome

Throughout all of the discussions thus far, every log-odds coefficient and relative risk ratio has had to be interpreted in light of the employed reference group of no prior record and a most serious arrest charge of public order crimes. While useful in terms of appraising the liberation hypothesis and generally appraising the hypotheses of the current work with viewing most serious offense charges against the less serious public order crime, this does limit the degree of comparisons across other more serious arrest

charges. One such arrest charge that warrants further comparisons is drug sales, particularly for black vs white comparisons. As can be seen throughout Tables 7A-7F, black-white differences were highest in magnitude and statistical significance throughout for drug sales arrest charges compared against public order crimes. As such, another set of analyses were conducted in order to verify whether these differences were a product of comparisons against public order crimes specifically or an indicator of exceptional disparities for drug sales crimes for blacks as opposed to whites.

Results for comparisons with drug sales as the reference arrest charge are included as part of this additional set of analyses. These results are depicted in Figures 2A-2C. These figures provide comparisons between the other 14 arrest charges and drug sales for some prior arrests and black vs white disparities. These values are comparable relative risk ratios to those displayed in Tables 7A-7L, but the reference arrest charge is now drug sales charges. The relative risk ratios are plotted along with respective 95% confidence intervals. If a confidence interval does not cross the included line at 1.0, then that comparison would be found to be statistically significant. Ten individual panels are included in Figures 2A-2C to incorporate all of the pairwise comparisons between the dispositional outcomes.

[Insert Figures 2A-2C Here]

The general pattern of the results in Figure 2A and Figure 2B impart that the influence of drug sales charges is statistically significantly distinct from the majority of the other crimes under consideration in addition to the original differences observed as compared to public order crimes. Black-white disparities for acquittals as compared to dismissals are higher for drug crimes than for most other crimes under study. A similar

finding emerges for custodial sentences as compared to dismissals. Each comparison against diversions presented in Figure 2B offers a similar pattern with drug sales serving as an exceptional arrest charge. Figure 2C is more equivocal, particularly with regard to acquittals. However, only other drugs had a greater relative black-white disparity for custodial sentences as compared to non-custodial sentences than that observed for drug sales. The high magnitude results observed in Tables 7A-7F are clearly more than substantial individual comparisons against public order crimes, and are indicative of augmented disparities for black defendants charged with drug sales crimes as compared to similarly charged white defendants.

Sensitivity models were also employed to account for the impact of demographic characteristics and alternative ways in which prior record could be operationalized. These tables are available upon request and act as a supplement to the current results. Tables 8A and 8B is included to provide an overview and summary of these sensitivity analyses. The columns of Tables 8A and 8B provide information on what sensitivity analyses were attempted, the rationale for each attempted sensitivity analysis, whether the sensitivity analysis could be completed, table numbers from the supplemental file available upon request for the respective output, and primary deviations or results from the sensitivity analysis as compared to the main analysis.

[Insert Tables 8A and 8B Here]

The first set of sensitivity models employs various subsamples of the analytic sample to assess for differences due to demographic characteristics. Each of these models was successfully completed except for the model for the subsample of women, which did not have sufficient cell sizes and variation among the covariates with the outcomes to be

estimated. The chosen cut point for age of 25 is consistent with other works employing the SCPS data (see Franklin, 2010a), and is likewise employed alongside gender to determine if younger males are the primary drivers of the overall results.

The second set of sensitivity analyses utilize the same framework as the primary model, but employ listwise deletion for those cases missing information on prior arrests. The purpose behind these results is to ascertain the extent to which retaining missing data as a separate category may be impacting other coefficients within the model.

The third and fourth sets of sensitivity analyses perform the same procedures in the primary analysis and the previously discussed sensitivity analyses, but while utilizing prior convictions instead of prior arrests. The third set utilizes prior convictions and treats missing observations as a separate category while the fourth set utilizes prior convictions and employs listwise deletion for those cases missing information on prior convictions. These analyses are to determine whether prior arrests and prior convictions prompt different conclusions regarding the role of race and dispositional outcomes. Prior arrests is the primary measure employed due to the SCPS data employing a sampling upon arrest procedure as opposed to sampling on conviction. Nevertheless, sensitivities employing prior conviction instead of prior arrests are still prudent.

A further sensitivity analysis was conducted to ascertain whether observed differences for Hispanics are not fully captured with the primary model where some states have very low Hispanic populations. The sensitivity analysis employed to address this takes the four states with the highest proportion of cases retaining Hispanic defendants and uses those states as a subsample for analysis. These states are Arizona, California, New York, and Texas. These results are substantively similar to those of the

primary model, but Hispanic disparities with regard to diversions and custodial sentences are augmented in this sensitivity analysis as compared to the primary results.

Unfortunately, there were several further sensitivity analyses that could not be completed with the fully specified model in addition to those with the subsample of women in Table 8. The models for the seven- and twelve-group outcome measures failed to converge even when attempting to provide starting values obtained from the five-group model. The implication is that the data is not ideally suited to completely address the questions from this dissertation. Important gaps remain with regard to disaggregating both guilty pleas and pretrial detention from the current results. This results in an inability to properly address Hypotheses 1 and 4 concerning pretrial detention and guilty pleas, respectively. Unfortunately, these directions and hypotheses must be left to future work with further intricate data on the nature of court case processing than what is currently available.

Additional models that were not estimable with the fully specified model were both the nested logit and the alternative specified multinomial probit. Unsurprisingly given the methodological complexity of each respective model, they each failed to converge in the face of the numerous interaction terms and fixed effects. As Kropko (2008) highlighted in his simulation analyses, estimation procedures for these alternative models are very complex and have difficulty converging due to issues pertaining to finding local maxima in the optimization procedure, issues with starting values, and issues completing the successive levels of integration required to estimate the model. As such, it is unsurprising that these models were not estimable in the current context, and any results from those models, if they did converge, would have to be viewed with a

degree of skepticism. Kropko (2008) found tremendous biases in simulation results with the multinomial probit for a three-group outcome category. Incorporating starting values from the multinomial logistic regressions did not improve the optimization procedure, and still resulted in a failure to achieve convergence. However, a reduced specification of these models did converge. While results from this reduced specification must be treated cautiously given the failed convergence for more complex specifications, this reduced specification did include a test for violations of the IIA assumption. This test came back as not significant for the reduced specification, potentially indicating that IIA may not be a major culprit within the current analysis. Given concerns in estimation regarding the reliability of the estimates given convergence issues with these alternative models, the results from the multinomial logistic regression models must be retained as the primary results of interest. As Kropko (2008) noted, the results from the multinomial logistic regression were often less biased than results from a multinomial probit even in the face of simulated violations of IIA.

6. Results for Research Objective 2

As discussed in the current study section, the second research objective focuses upon calculating total racial disparities in the imposition of custodial sentences. As noted previously, this is accomplished by calculating the probability of a case following each of four possible pathways to receiving a custodial sentence, and then summing those probabilities to produce a total probability of receiving a custodial sentence for each case. This total probability is calculated separately by race, most serious charge at arrest, and level of prior record. This results in a total of 192 cells for which a probability of receiving a custodial sentence is calculated (as laid out in Table 4). This also results in a total of 192 tests to ascertain racial disparities in the probability of receiving a custodial sentence. These tests employed exact matching upon prior arrest levels and the most serious offense charge. As such, these tests are testing for the presence of racial disparity in cases with the same level of prior record and most serious offense charge at arrest. As with the first research objective, the offense charge at arrest is employed as opposed to at conviction due to many cases that were dismissed, diverted, or acquitted not having a commensurately dropped offense charge at conviction or prosecution. As such, the most serious offense charge at arrest is the only measure within the SCPS data for which each case can be accurately compared in predicting the probability of a custodial sentence.

Traditional thresholds for statistical significance cannot be employed for the current analysis given the volume of employed statistical tests. As such, the Bonferroni correction was employed to calculate a more conservative alpha for each individual test of 0.000267, which results in an overall probability of 0.05 to find at least one statistically significant difference among the 192 tests. Given the breakdown of cases into

192 cells, sample size also becomes a pertinent issue in terms of underpowered statistical tests. The aforementioned power analysis provided a minimum sample size of 150 cases for each racial group being compared in order to detect statistically significant differences if present with a beta of 0.80 and the employed alpha of 0.000267 after a Bonferroni correction. Table 9 provides the cell sizes for each racial group and the given case characteristics. Highlighted cells are those cells that will prompt underpowered statistical tests due to the respective cell size being less than 150 cases. All of the statistical tests are still conducted with these small cells, but a failure to find significant differences for these underpowered cells does not impart that there are not racial disparities for those given case characteristics due to the underpowered comparisons.

[Insert Table 9 Here]

[Insert Table 10 Here]

Table 10 provides the total probability of receiving a custodial sentence for each cell from Table 9. These probabilities are the probability of receiving a custodial sentence for felony cases with the given most serious offense charge and prior record level. The lowest probability of receiving a custodial sentence in Table 10 is 0.1738, and is for white defendants with no prior arrests with a most serious arrest charge of other drug crime. The highest probability of receiving a custodial sentence in Table 10 is 0.7826, and is for white defendants with 10 or more prior arrests and a most serious arrest charge of murder. Table 11 provides the respective 192 statistical tests evaluating racial disparities among the probabilities in Table 10 while matching exactly on the current offense and prior arrests. Standard errors are omitted in the interest of parsimony in interpreting the values in Table 11. Values in bold and with an asterisk denote tests that

crossed the Bonferroni-corrected threshold for statistical significance of 0.000267, and indicate the presence of racial disparity for the given test.

[Insert Table 11 Here]

A total of 40 racial comparisons were found to be statistically significant at the Bonferroni-corrected threshold for statistical significance. Curiously, over half of these statistically significant differences (23) are between blacks and Hispanics, with less than half of the significant comparisons involving white defendants. Most of the significant differences were for defendants whose most serious arrest charge was assault, other violent, motor vehicle theft, drug sales, or weapons charges. Most of the differences between minorities and whites are observed for those cases with some prior arrests. There is also a substantial reduction in the number of observed Hispanic-white differences for those with a maximum prior arrest record as compared to some prior arrests or no prior arrests.

While most of the tests with a missing prior arrest record came back as not significant, nearly all of these tests were underpowered according to Table 9. Inspecting the magnitude of the differences reveals a consistent pattern as compared to the rest of Table 11. The highest magnitudes for differences across races are observed for murder, robbery, motor vehicle theft, other drugs, and weapons charges. Many of these differences would likely be found to be statistically significant if there were sufficient observations with missing prior arrest records.

The results in Table 11 offer some support for the liberation hypothesis with fewer differences between minorities and whites for the highest level of prior record. Further, most of the differences between minorities and whites were for drug crimes,

motor vehicle theft, and more minor violent crimes of assault, other violent, and weapons charges. Curiously, significant differences were not found between minorities and whites for forgery, fraud, other property charge, public order crimes, and driving related crimes. This runs counter to expectations from the liberation hypothesis concerning greater levels of racial disparity for these lesser offenses. Importantly, this is not driven by a low likelihood of receiving a custodial sentence as shown in Table 10. For driving related charges in particular, most of the cells for driving related charges were above a 0.5 probability of receiving a custodial sentence.

Curiously, three of the four significant differences between blacks and whites show a higher likelihood of a custodial sentence for white defendants as opposed to black defendants. In fact, the vast majority of the estimates in general for black vs white comparisons are negative, suggesting higher likelihood of receiving a custodial sentence for white defendants as compared to black defendants. The reverse is true for Hispanic-white comparisons, with Hispanics retaining both general higher likelihoods of receiving a custodial sentence than whites, and each statistically significant comparison shows a higher likelihood of a custodial sentence for Hispanic defendants.

Where Table 11 provides tests for racial disparities in the likelihood of receiving a custodial sentence while sampling on felony charging, Table 12 provides the same calculations but while sampling on conviction. The only difference between the results in Table 12 and the results in Table 11 lay in the denominator in calculating the probabilities of receiving a custodial sentence by race. In Table 11, this denominator is the total number of cases for the respective races in each cell of Table 9. However, for Table 12, this denominator is the number of cases that were convicted for the respective

racers in each cell of Table 9 Comparisons between Table 11 and Table 12 immediately impart the impact of sampling upon conviction in appraising racial disparities in total differences in the probabilities of receiving custodial sentences.

[Insert Table 12 Here]

Sampling on conviction reduced the number of significant differences by race from 40 down to 30, but the number of significant differences involving white defendants increased from 17 to 18. Further, the significant black-white differences are now more heavily favoring whites; two of the three black-white differences now involve a greater likelihood of receiving a custodial sentence for black defendants as opposed to white defendants. On the whole, black-white differences have shifted from Table 11 to Table 12, with most of the estimates shifting from higher likelihoods of a custodial sentence for white defendants to higher likelihoods of a custodial sentence for black defendants. Hispanic-white differences largely remained significant, with a few extra differences becoming significant. However, the magnitude of these differences increased for the majority of comparisons. For example, the Hispanic-white difference for assault increased from 0.1374 when sampling on arrest to 0.2010 when sampling on conviction. The chosen sampling point has a fairly clear impact upon the respective results, in agreement with the general assertion of Baumer (2013) concerning the sensitivity of race and sentencing findings to sampling on conviction.

The discussion of Table 11 and Table 12 thus far has primarily been informed by concerns for statistical significance in detecting racial disparities. With the exception of murder and rape, the statistically significant differences observed in Table 11 and Table 12 are also of the greatest magnitude. Black-white differences were relatively small for

most of the comparisons in both Table 11 and Table 12 with very few comparisons showing greater than a 0.10 racial difference in the probability of a custodial sentence. Hispanic-white comparisons, however, prompt many racial differences of 0.10 or greater, with many of these differences also being found to be statistically significant. The highest magnitude of racial differences observed for black-white comparisons lay in murder, rape, motor vehicle theft, weapons charges, and driving-related offenses. The highest magnitude of racial differences observed for Hispanic-white comparisons lay in murder, assault, other violent, motor vehicle theft, drug sales, and weapons charges. The pattern of offenses prompting the greatest levels of disparity, regardless of statistical significance are fairly comparable for blacks and Hispanics as compared to white defendants. However, the direction of these differences is reversed for Blacks and Hispanics with regard to motor vehicle theft and weapons charges where Black defendants are found to be less likely to receive a custodial sentence than whites and Hispanic defendants are found to be more likely to receive a custodial sentence than white defendants. This is a curious pattern that also prompts the greatest levels of differences between Blacks and Hispanics, which beyond the purview of the current work, is a prime avenue for future research evaluating racial disparities beyond minorities as compared to whites.

Both Table 11 and Table 12 appraise and test for racial disparities within cells, but cannot statistically speak to whether those tested disparities are equal to one another. Tables 13A-13D test whether the disparities present in Table 11 are different for different offense types as a more specific test of the rationale developed from the liberation hypothesis. That is, the disparity observed for more serious offenses, such as murder and rape, should be less than the observed disparity for less serious offenses such as drug

crimes and property crimes. These tests are assessing whether the observed differences for separate offense types are different or equal to one another. Each combination of offense types while accounting for prior record is tested, resulting in a total of 1,504 statistical tests.

$$\begin{aligned}
 & ((16 \text{ offense types} * 16 \text{ offense types} * 4 \text{ prior record levels} * 3 \text{ racial comparisons}) \\
 & \quad - (16 \text{ offenses with themselves} * 4 \text{ prior record levels}))/2 = \\
 & \quad ((3,072) - (64))/2 = 3,008/2 = 1,504
 \end{aligned}$$

As shown above, this calculation of the number of statistical tests begins by multiplying the number of differences for the first offense type (16) by the number of differences for the second offense type (16) by the number of levels of prior record for which current offenses (4) by the number of racial comparisons (3). This first multiplication suggests that 3,072 tests would be performed. However, a correction must be inserted to remove those tests where the two offense types are the same, which is the reduction of 64. After this correction, the resulting sum is divided by two as each test would otherwise be performed twice – once in each the bottom and upper triangle of the matrix of first and second offense differences.

Similar to before, a Bonferroni correction is employed to determine what the appropriate, and more conservative, alpha should be for this high volume of statistical tests. This calculation is shown below:

$$0.05 = 1 - (1 - \alpha)^{1504}$$

$$1 - \alpha = 0.95^{\frac{1}{1504}}$$

$$\alpha = 0.000034104$$

As a result of this calculation, the employed alpha for each individual statistical test in Tables 13A-13D is 0.000034104 in order to maintain a 0.05 probability of finding at least one statistically significant difference due to chance. Tables 13A-13D do not display any numbers, as the thousands of values and significance tests would quickly become overwhelming and uninformative. Instead, Tables 13A-13D identify which observed racial disparities were found to be statistically significantly different from one another and for which racial comparisons. Each cell in Tables 13A-13D represents a test of whether the difference observed for the offense listed in the row is equal to the difference observed for the offense listed in the column. These tests are performed for each racial comparison (black vs. white; black vs. Hispanic; Hispanic vs. White). The content of the cells imparts which racial comparisons were found to be statistically significant; that is to say that the two observed disparities for that racial comparison for the two offense types were found to be statistically significantly distinct at an alpha of 0.000034104. The upper triangle of these tables is left vacant as it would otherwise be a perfect reflection of the lower triangle.

[Insert Tables 13A-13D Here]

Unfortunately, Tables 13A-13D only impart what differences were found to not equal one another, and does not impart direction of the two differences or the direction for the respective test of equality.¹⁴ However, all of this information is included in Table

¹⁴ Several different variants of Tables 13A-13D were attempted in an effort to incorporate directionality into the table directly. However, each of these efforts fell short of aiding the reader in interpreting the results due to the lack of consistency in the direction of racial differences in the columns of Table 11. This led to an inability to adequately characterize whether one disparity was greater than the other or further displaced from zero while also retaining which racial group was “higher” for each respective comparison. This was of greatest concern as most of the observed statistically significant tests of equality arose from tests when one difference was negative and the other was positive. The result in Tables 13A-13D prioritized parsimony and links back to Table 11 to portray the totality of the results.

11 and can be linked with the results in Tables 13A-13D to ascribe direction. While only looking at the tests of equality of differences, the greatest number of statistically significant tests both in total and for comparisons against whites specifically are for no prior arrests at 52 and 31, respectively. Twenty-five of the fifty significant tests with some prior arrests involved white defendants, and fourteen of the thirty-six significant tests with max prior arrests involved white defendants. Only seven of the twenty-two significant tests with missing prior arrests involved white defendants. However, fourteen of these significant tests for missing prior arrests are a product of what is essentially an outlier for the underpowered cells for motor vehicle theft arrest charge and missing prior arrests. Each of the cells for each race for motor vehicle theft and missing prior arrests was below the minimum sample size needed of 150 at forty-seven, sixty-seven, and forty-one for whites, blacks, and Hispanics, respectively. 71% of these Hispanics received a custodial sentence while only 27% of the respective black defendants received a custodial sentence. This massive difference was statistically distinguishable from nearly every other black-Hispanic difference for missing prior arrests, prompting fourteen of the twenty-two observed statistically significant differences in Table 13D.

Consistent with many of the findings from the first research objective, drug sales and other drug crimes stand out with regard to retaining distinct disparities from those observed for other arrest charges. The pattern of these findings does not support a monotonic view of the liberation hypothesis with regard to the most serious arrest charge. In fact, many of the differences observed for rape and murder are a product of disparities favoring minorities for both murder and rape compared against disparities favoring whites for other offenses. Hypotheses 8A and 8B are not completely supported. However,

hypotheses 9A and 9B are somewhat supported with the greater number of significant tests of equality for lower levels of prior arrests.

Sensitivity analyses were also conducted utilizing prior convictions as the indicator of prior record instead of prior arrests. These results were substantively similar to the reported results employing prior arrests. Similar patterns were observed with regard to which most serious arrest charges prompted the greatest disparities, and the impact of sampling upon arrest as opposed to conviction. The tests for equality of disparities were also substantively similar to those presented with prior arrest. These results and associated tables are available upon request.¹⁵¹⁶

¹⁵ The supplemental tables corresponding to these sensitivity analyses are Tables S25, S26, and S27A-S27D.

¹⁶ Further sensitivity analyses were not conducted for the second research objective with various subsamples due to cell size concerns and underpowered comparisons that already prompted issues for the pooled analysis.

7. Discussion and Conclusion

Issues of racial equality, discrimination, and disparity remain prominent concerns across numerous domains in the United States. Racial disparities in treatment by the criminal justice system remains one of these prominent concerns. This dissertation was directed at evaluating those racial disparities arising from the courts following a felony charging. Importantly, all of the results from this dissertation concerning disparities favoring or disadvantaging minorities as compared to whites in the court must be interpreted in light of this dissertation sampling upon filed felony charges. These appraisals of disparities within the court are but one component of a myriad of differential experiences minorities face within society (Wilson, 1987; Wilson, 2009). The experience of a felony arrest, associated time in a police cruiser being taken to a station for booking, the experience of processing, the possibility of pretrial detention, and the possibility of incarceration are all part of the experience of receiving a felony arrest and related felony charges. As noted by Feeley (1979), these experiences are a punishment unto themselves, and they are the only punishment experienced by individuals who have their case dismissed or acquitted. These defendants, regardless of final dispositional outcome, are left with a felony arrest on their record. A status that carries several collateral consequences, and is found to be directly related to more punitive dispositional outcomes by the results of the current work.

With this context in mind, this dissertation still sought to explore and evaluate racial disparities, both positive and negative, arising from the court process following a charged felony case. This focus was on attempting to treat several gaps within the extant sentencing literature concerning the role of race in the dispositional outcomes of

diversions, dismissals, acquittals, convictions without a custodial sentence, and convictions with a custodial sentence. Toward these ends, this dissertation retained two distinct, but related research objectives with associated modeling approaches. The first research objective, and associated method, explored a broader range of dispositional case outcomes and treats the gap left within much of the extant literature that induces a false equivalency in looking at individual dispositional outcomes as compared to any other possible outcome. The employed method explicitly avoided this false equivalency in the prosecuted group of cases for research focused on dismissals and selection effects inherent to the modal sentencing research. This approach, thus, spoke to the gap in terms of understanding racial disparity across dispositional outcomes as opposed to only treating the final decision point. This overall approach allowed for case-level comparisons and evaluations that extended beyond the scope of the extant literature, with many scholars calling for such research directly. These results also help fill the gap left by the Blumstein (1982, 1993) approach that treats everything between felony arrests and the incarcerated population as a black box by evaluating the process and how cases are disposed. This also allowed for an appraisal of disparities both favoring and disfavoring minority defendants as compared to white defendants.

This approach tested hypotheses derived from the employed theoretical framework. This theoretical framework was largely based upon both focal concerns theory and the liberation hypothesis, but also exapted mechanisms from organizational attribution theory, organizational efficiency theory, implicit bias and stereotypes, and heuristics toward prompting the employed hypotheses. Admittedly, this theoretical framework could only be employed to provide the employed hypotheses, and none of the

discussed mechanisms could be directly tested. However, the results from this inquiry can still be joined to this theoretical framework for the purpose of guiding and directing future inquiries into racial disparities arising in the court across multiple dispositional outcomes.

The methodology employed for the first research objective was the first instance of an application of multinomial logistic regression to adult felony case processing (see Cochran & Mears, 2015, for an application of multinomial logistic regression to the juvenile process). Comparisons across models with divergent assumptions regarding IIA was prohibited for the fully specified model, though the preliminary results from the nested logistic regression suggested that IIA may not be of concern in the current inquiry. Future researchers are still encouraged to continue to compare across these divergent models making different assumptions concerning IIA.

Where the first research objective focused on differences among dispositional outcomes, the second framework focused explicitly on differences within the total probability of receiving a custodial sentence. The results from this inquiry situate directly within the cumulative disadvantage literature in providing estimates of the cumulative, or total, racial difference in the likelihood of receiving a custodial sentence. The multiple estimates of this cumulative effect allowed for a singular parameter estimate that can be used to dictate the court's effect on blacks and whites without having to extrapolate from arrest and corrections data as Blumstein (1982) does. This otherwise straightforward estimate or metric allowed for an ease of comparison for cumulative racial effects across case characteristics. This approach also enabled a direct test of the liberation hypothesis

for whether total disparity was greater for less serious offense characteristics than for more serious offense characteristics.

The results from the second research objective join the results from the first research objective in appraising hypotheses from the employed theoretical framework. The exact matching on the current offense and prior record allowed for descriptive appraisals of how cumulative disparity shifts and varies across case characteristics. This provided a test of sentencing theories on the final sentencing decision without selecting the sample based upon an earlier decision point. This also provided general probabilities of receiving a custodial sentence across racial groups.

As for specific results, the proposed hypotheses for the current work were generally supported within the multinomial logistic regression analysis. Minority defendants were less likely to receive a diversion, more likely to receive a dismissal, more likely to receive an acquittal, less likely to receive a conviction without a custodial sentence, and more likely to receive a conviction with a custodial sentence. This pattern did not hold for all of the offense types under study with many interaction terms coming back not significant, but the general pattern held with the notable exception of driving related crimes for black defendants. The divergent pattern for driving related charges may be a direct representation of differential behavior on the part of police with regard to a reduced threshold to making an arrest when stopping black individuals as opposed to white individuals (Gelman et al., 2007; Wilson, 2009). The exceptions for driving related charges appear to be in the direction of reduced convictions with a custodial sentences, increased convictions without a custodial sentence, and increased diversions. Given this trend, this could also be a unique component of driving-related felony offenses that are

less likely to result in a prison sentence and more likely to result in probation or an alternative sanction that would be coded in SCPS as a diversion.

Drug sales and other drug crimes were exceptional arrest charges with regard to racial disparities arising from the multinomial logistic regressions and the subsequent relative risk ratios. Black-white disparities were strongest for most serious arrest charges of drug sales charges and other drug charges. Hispanic-white disparities were strongest for most serious arrest charges of drug sales charges, but not other drug charges. This discrepancy could be a product of police tactics, deployments, and charging decisions. Black defendants will be caught both with intent to distribute as well as simple possession due to police targeting of open-air markets that are more commonly employed by black drug users and traffickers (Mitchell & Caudy, 2015). Hispanic defendants charged with drug crimes are likely subject to overcharging, resulting in the most serious charge being drug sales, and to potentially be caught smuggling drugs across the border (Warren et al., 2012). These rationales are clearly not testable or observable within the current dissertation, but offer some explanation for what may be prompting the exceptional impact for racial disparities observed for drug sales and other drug charges.

The total probability analysis offered immediate support for Baumer's (2013) notation regarding limitations of the modal approach to race and sentencing research that samples on conviction. Sampling on conviction when appraising disparities in the total probability of receiving a custodial sentence shifted the disparities toward more disadvantage for minority defendants. In particular, where previously the majority of estimates for black-white differences were negative when sampling on arrest, there was a more even collection of estimated positive and negative black-white differences when

sampling on conviction. An important finding from both sets of analyses was the presence of these negative differences that provided greater probabilities of a custodial sentence for whites than for blacks. Murder and rape, while underpowered, appeared to have a tremendous disadvantage for whites as compared to blacks or Hispanics. This relative disadvantage for whites was lessened considerably when sampling on conviction as opposed to arrest.

These positive and negative disparities in the total probability of receiving a custodial sentence are one of the most noteworthy findings from this dissertation that also have substantial relevance for policymakers. Much of the legislation targeted toward sentencing reform has focused on the court system as a whole without too much emphasis upon reforming the court system for particular offenses. The findings in opposite directions for racial disparities between minority defendants and white defendants suggest that such an approach that focuses on reducing disparities generally runs the risk of worsening the situation for minority defendants. Policymakers should ensure that policies account for not just overall aggregate trends in court processing, but also attend to specific nuances to processing across offense types, prior record levels, and jurisdictions.

Given the variety of findings for the second research objective, the liberation hypothesis could not be fully confirmed with regard to most serious arrest charges. This more granular test of the liberation hypothesis prompts a need to reconsider the monotonic nature of the proposed hypothesis and more specific theorizing that is focused upon the specific nature of offense charges and prior record levels. Future research is clearly needed to aid in further refining the liberation hypothesis with this regard.

Importantly, this variety of racial disparities with both negative and positive disparities observed for black-white differences across offense types runs counter to much of the extant literature employing SCPS data (see Stolzenberg et al., 2013 and Sutton, 2013 among others). Two reasons for the divergent findings between the current work and much of the extant literature lay in the employed sampling point and the manner in which current offense information was incorporated. Sampling upon felony charge filing as opposed to conviction allows for many of the processes and mechanisms for which minority defendants are relatively favored (dismissal and acquittals) to enter into the net calculations, prompting reduced black-white differences. Sutton (2013) employs the SCPS data and finds black-white disparities favoring whites within the SCPS data, but samples upon conviction. Similarly, in the results for the second research objective, this inquiry finds that racial differences move toward favoring whites as opposed to blacks when sampling upon conviction as opposed to felony charge filing. These differences are apparent in moving from Table 11 to Table 12. From this lens, Table 12 is more consistent with the extant literature, as it is employing a similar sampling point to many of these works, including Sutton (2013).

This distinction between sampling on felony charges as opposed to sampling on conviction parallels the concerns noted by Baumer (2013) concerning selection issues in evaluating racial disparities for convicted cases. Sampling upon conviction selects upon those cases that made it past or through dismissal, acquittal, and diversions. Sampling upon charging decisions does not ameliorate concerns with selection, but rather offers a different vantage point with which to appraise the influence of case processing decisions. Future research should continue to move beyond sampling upon conviction toward

understanding the resulting observed differences attributable to the court when different sampling points are employed that retain different selection components. This avenue of research modifying sampling points may offer one path forward for tackling the selection issues dominating the sentencing literature.

The other highlighted distinction between this dissertation and the extant literature lay in the operationalization of current offense information. This dissertation retains the full variation of that measure with the 16 possible most serious arrest indicators whereas many other authors employing the SCPS data combine these offense categories into classes of offenses such as “violent,” “property,” or “drug crimes.” As depicted across all of the results in this dissertation, such combinations mask important underlying heterogeneity in the influence of race across offense types. Deviations in findings based upon the operationalization of current offense information are not as robust as those discussed with regard to the sampling point, but still prompt a strong distinction between the current work and much of the extant literature employing the SCPS data. More research is needed that employs similar operationalizations of current offense information as well as alternative sampling points to confirm the veracity of the findings reported here.

This dissertation is not without its limitations, however, and much work is left to future researchers to continue the avenue of research in this dissertation. These limitations pertain to both the employed methodological approaches as well as the SCPS data. The employed approach does not treat selection, and cannot speak to what would have happened to dismissed or diverted cases if they were to be convicted or not convicted. An alternative methodological approach analogous to the attempted nested

logistic regression that can retain the sequential nature of decision-making processes within the court would be further ideal. This dissertation can only speak to dispositional outcomes as assigned following arrest by treating the dispositional outcomes as mutually exclusive categories. While this is accurate to the way in which cases are disposed, it does limit some of the conclusions that can be generated with regard to total effects, selection effects, decision-making processes, and prompts some generalizability concerns.

The employed models retained a large number of independent variables, interaction terms, and fixed effects to estimate, with each term having to be estimated four times for the respective comparison between outcomes in the primary sequence of models. This volume of parameter estimates had an immediate impact in limiting the ability to conduct several sensitivity models for the first research objective. As noted in Table 8A and Table 8B, this dissertation could not run models with the seven-group outcome, twelve-group outcome, female subsample, multinomial probit, nested logistic regression, or for individual states. This does limit some of the generalizability of the reported findings, though the consistency of findings across those sensitivity analyses that could be completed abates part of this concern.

The inability to run the multinomial probit and nested logistic regression still prompt some concerns regarding internal validity with regard to violations of the independence of irrelevant alternatives assumption. This potential violation cannot be fully addressed by this dissertation, but some comfort is gained from the highlighted simulation work of Kropko (2008) that found that a multinomial logistic regression was more accurate than a multinomial probit in the face of violations of IIA alongside

multiple outcome categories and numerous covariates. Until new convergence algorithms and alternative packages designed for treating IIA are developed, the extent of this concern regarding biases in court case processing due to possible violations of IIA unfortunately remains unknown.

The SCPS data also prompts several limitations for the reported findings. This data, while useful due to the range of included dispositional outcomes, is only case-level with minimal granularity for the timing and details of the process. This data did not have charge-level information for each case in terms of the assortment of charges at arrest toward the assortment of charges if convicted. This data also only captured total dismissal and does not have information on whether individual charges were dropped while other charges were retained. Future researchers should endeavor to acquire data from court systems that does retain this additional information in order to unpack what are likely to be further nuanced processes related to overcharging, charge bargaining, charge dismissals, and general distance traveled between the collections of charges at arrest to the collections of charges at conviction. Such inquiries may require further alternative methodologies as variation in outcomes at the charge level may prove even more cumbersome to transform into a vector of outcomes than what was currently employed by this dissertation.

The SCPS data also does not retain information on every decision made within the court nor the timing of these decisions. There is not information on initial case acceptance, the number of appearances before final disposition, motions requested or filed by legal counsel, the nature of the plea bargaining process, or any probation officer reporting. With this respect, the SCPS data is fairly crude and introductory with regard to

the broad classifications of dispositional outcomes it retains. As such, any results from this dissertation must be viewed as a preliminary step toward future work with far more detailed data that will allow for more nuanced appraisals of the finer details of case processing decision-making. Such works can expand upon the employed theoretical framework here to incorporate these additional decision points while also expanding these conceptions further to each individual actor at each stage in the more comprehensive process.

As noted previously, there was not enough variation on the outcome to estimate the seven-group or twelve-group outcome categories that incorporated guilty pleas and pretrial detention. While this inquiry offers a useful step forward in evaluating this range of dispositional outcomes for felony defendants, much future research will be needed to evaluate disparities at the charge level. The inability to test hypotheses 1 or 4 within this framework is problematic for assigning mechanisms to differences in custodial sentence as compared to other dispositional outcomes. Given that minority defendants are more likely to be held in pretrial detention, and being held in pretrial detention has been clearly associated with a host of more punitive later outcomes in case processing, pretrial detention prompts an omitted variable bias in interpreting racial disparities in custodial sentencing for the current work. This dissertation cannot disentangle to what extent observed racial disparities in the imposition of custodial sentence are due to biases on the part of the judge at sentencing or a product indirectly of pretrial detention and guilty pleas. Future researchers should seek to collect data from individual jurisdictions that afford a greater volume of cases with more variation in the combinations of dispositional outcomes and decision points. This kind of analysis would provide more variation on the

outcome measure without requiring the volume of parameters within the current dissertation involving state and year fixed effects.

Missing data was also of concern in the SCPS data due to substantial missing data on prior record and some missing data on conviction and pretrial detention. Granted, the employed approach retaining missing cases as a separate category showed promise, prior record data for these cases was still missing, and there is still a potential for results to be misspecified. This prompted the sensitivity analyses utilizing listwise deletion, which showed minimal deviations and suggests any misspecifications, if present, are likely of minimal consequence. However, the categorical coding and nature of prior record indicators in the SCPS data is itself problematic. Future work unpacking greater degrees of variation in prior arrests may go far in understanding in greater detail how racial disparities in custodial sentence imposition lessens as prior record increases.

The most important limitation to the current dissertation, and a strong avenue for future research, concerns the lack of evidentiary strength measures. Having some form of evidence strength measures for the given cases would enable researchers to compare white and black cases that were far more comparable for an arrest to final disposition comparison. This would also allow for a greater appraisal of the extent to which the court is biased or correcting for bias on the part of police. Evidence strength measures would also enable a direct appraisal of several of the proposed mechanisms underlying racial differences in both dismissals and acquittals. Any and all resulting racial differences observed once controlling for evidence strength as a covariate predicting each dispositional outcome would be substantially strengthened, just as the current findings are suspect to the lack of evidentiary strength measures. Several scholars, agencies, and

research groups are working on developing standardized evidentiary strength measures that could be utilized to produce comprehensive indicators of evidence strength.

Researchers that have access to docket and richer case information could use these standardized metrics to code evidence measures for later analyses employing those data. This would require a large upfront cost on the part of the researcher to produce a standardized evidentiary measure for a court case processing data set, but the potential returns listed here and beyond for dissecting court case processing would be worth the investment.

This dissertation retained a primary focus on minority defendants as compared to white defendants in the interest of racial equality and joining the current discourse concerning the maltreatment of black and Hispanic defendants in the criminal justice system. However, many of the findings in the current dissertation hint at important differences between black and Hispanic defendants that offers a rich avenue for future research that seeks to expand further from inquiries into black-white or Hispanic-white disparities in the criminal justice system. New theoretical developments and associated inquiries will be required to firmly pin down how, why, and when disparities between black and Hispanic defendants should be anticipated.

Despite the limitations of the current work, the discussed results from this dissertation can do much to push forward the literature on race and sentencing, contribute to theory development across court case processing, and aid in the identification of areas of concern for racial inequities in treatment by the court. Future researchers will have to attend to these discussed limitations while also exploring the applicability of these findings to alternative contexts. The current dissertation employed data exclusively on

large urban areas, and cannot speak to potentially divergent processes arising from more rural jurisdictions. More specific decision-making data is also needed in order to ascertain whether the employed theoretical framework is an accurate description of racial differences arising from the court or if further alternative frameworks are more appropriate. There is much room for growth in terms of methods, data, and theorizing in the future of race and sentencing research.

Racial disparities arising from what is supposed to be the arbiter of justice in the criminal courts will continue to be an area receiving extensive research. This dissertation hopes that the theoretical framework, modeling approaches, and resulting findings here can aid those researchers contributing to this tradition that seek to join the growing body of researchers breaking free of the “modal” approach to race and sentencing research.

Appendix 1. Tables and Figures

Table 1 – Documenting Missing Data for Black, White and Hispanic Defendants

Missing building	Full Sample	
	n	Cases lost
Total Cases	144,260	
Cases pending	128,007	16,253
Other outcome	127,673	334
Convicted, missing plea	126,487	1,186
Not convicted, missing plea	126,416	71
Missing convicted and plea	125,015	1,401
Missing current offense	124,977	38
Missing pretrial detention	122,472	2,505

Table 2A – Descriptive Statistics and Conditional Proportions by Racial Group (For All States)

	Black	White	Hispanic	Total
Current Offense:				
Murder	0.0071	0.0035	0.0059	0.0058
Rape	0.0128	0.0139	0.012	0.013
Robbery	0.0861	0.0363	0.0606	0.0649
Assault	0.1229	0.1084	0.1231	0.1185
Other Violent	0.0279	0.046	0.0426	0.0369
Burglary	0.0811	0.1009	0.0907	0.0894
Larceny	0.0947	0.1126	0.068	0.094
Motor Vehicle Theft	0.0267	0.032	0.0416	0.0318
Forgery	0.0266	0.0346	0.02	0.0275
Fraud	0.0246	0.037	0.0206	0.0275
Other Property	0.0397	0.0534	0.0348	0.0427
Drug Sales	0.1916	0.1153	0.1902	0.1679
Other Drugs	0.171	0.2	0.1884	0.1839
Weapons	0.0393	0.0203	0.0309	0.0315
Driving Related	0.0164	0.0447	0.0375	0.0299
Public Order	0.0315	0.0411	0.0329	0.0348

Dispositional Outcomes:

Diverted or Deferred	0.0508	0.0848	0.069	0.0655
Dismissed	0.2805	0.2287	0.226	0.252
Acquitted	0.0129	0.0067	0.0063	0.0095
Convicted, No Custodial Sentence	0.2129	0.2503	0.1913	0.2193
Convicted, Custodial Sentence	0.4428	0.4296	0.5073	0.4538

Total Number of cases	56,502	37,450	28,520	122,472
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For Those Prosecuted:

Guilty Plea	0.9084	0.9433	0.9584	0.9311
Pretrial Detention	0.4725	0.3947	0.5509	0.4674

Number of prosecuted cases	25,709	37,779	20,106	83,594
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Table 2B – Descriptive Statistics and Conditional Proportions by Racial Group (For Limited States)

	Black	White	Hispanic	Total
Current Offense:				
Murder	0.0073	0.0036	0.0059	0.0059
Rape	0.0131	0.0137	0.0121	0.013
Robbery	0.087	0.0365	0.0613	0.0654
Assault	0.1253	0.11	0.1238	0.1203
Other Violent	0.0279	0.0446	0.0417	0.0363
Burglary	0.0801	0.1018	0.091	0.0893
Larceny	0.0924	0.111	0.067	0.0919
Motor Vehicle Theft	0.0276	0.0327	0.042	0.0327
Forgery	0.0257	0.0344	0.0199	0.0269
Fraud	0.023	0.0347	0.0204	0.0259
Other Property	0.04	0.0521	0.0347	0.0424
Drug Sales	0.1846	0.1133	0.1904	0.1644
Other Drugs	0.1788	0.2043	0.1891	0.1891
Weapons	0.0411	0.0207	0.031	0.0324
Driving Related	0.0157	0.0464	0.0378	0.0304
Public Order	0.0304	0.0402	0.0319	0.0337
Dispositional Outcomes:				
Diverted or Deferred	0.0529	0.0895	0.0703	0.0682
Dismissed	0.2833	0.2282	0.2242	0.2522
Acquitted	0.0136	0.0068	0.0064	0.0098
Convicted, No Custodial Sentence	0.2167	0.2509	0.1906	0.2207
Convicted, Custodial Sentence	0.4335	0.4247	0.5085	0.449
Total Number of cases	52,121	34,828	27,919	114,868
For Those Prosecuted:				
Guilty Plea	0.9044	0.9419	0.9582	0.9294
Pretrial Detention	0.4736	0.4009	0.5527	0.4714
Number of prosecuted cases	34,598	23,765	19,697	78,060

Table 3A – Prior Arrest Levels and Conditional Proportions for All States (n=122,472)

	Black	White	Hispanic	Total
No Prior Arrests	0.2076	0.2838	0.2703	0.2455
Some Prior Arrests	0.4115	0.4224	0.4207	0.417
Max Prior Arrests	0.3101	0.237	0.2233	0.2675
Missing Prior Arrests	0.0707	0.0568	0.0858	0.07

Table 3B – Prior Arrest Levels and Conditional Proportions for Limited States
(n=114,868)

	Black	White	Hispanic	Total
No Prior Arrests	0.2757	0.2069	0.2676	0.2425
Some Prior Arrests	0.4287	0.4128	0.4228	0.42
Max Prior Arrests	0.241	0.3079	0.2256	0.2676
Missing Prior Arrests	0.0546	0.0724	0.084	0.0698

Table 4 – Framework for Total Effects Analysis

Current Offense	No prior record			Medium prior record			Severe Prior Record		
	Black	White	Hispanic	Black	White	Hispanic	Black	White	Hispanic
Murder									
Rape									
Robbery									
Assault									
Other Violent									
Burglary									
Larceny									
Motor Vehicle Theft									
Forgery									
Fraud									
Other Property									
Drug Sales									
Other Drugs									
Weapons									
Driving Related									
Public Order									

Table 5A – Main Coefficients of Race from Logistic Regressions on Individual Dispositional Outcomes

		Pairwise Comparisons				
		Diversions	Dismissals	Acquittals	No Custodial	Custodial
Main Effects	Race Comparison	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
	Black vs. White	-0.0324 (0.1794)	-0.1024 (0.0904)	-0.0720 (0.4346)	0.0234 (0.0916)	0.2143* (0.0860)
	Hispanic vs. White	-0.1621 (0.1968)	-0.0159 (0.1048)	0.4426 (0.5019)	-0.1195 (0.1087)	0.2989** (0.0993)

Notes: Results are from individual logistic regressions with an individual outcome category compared against any other dispositional outcome. Each model is run with state and time fixed effects included, but output for the fixed effects is omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 5B – Coefficients on Interaction Terms between Black and Current Offense from Logistic Regressions on Individual Dispositional Outcomes

		Pairwise Comparisons				
		Diversions	Dismissals	Acquittals	No Custodial	Custodial
Race Groups	Current Offense	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
Black vs. White	Murder	12.1801 (806.5310)	0.7902** (0.2943)	0.4955 (0.7566)	-0.5435 (0.2979)	-0.4899* (0.2381)
Black vs. White	Rape	0.2426 (0.3763)	0.4452** (0.1591)	1.2761* (0.6495)	-0.2696 (0.1853)	-0.5596*** (0.1516)
Black vs. White	Robbery	0.1794 (0.2637)	0.5826*** (0.1141)	0.7033 (0.5478)	-0.3201** (0.1235)	-0.4204*** (0.1054)
Black vs. White	Assault	-0.2254 (0.1981)	0.3661*** (0.0956)	0.1310 (0.4426)	-0.3145** (0.1017)	-0.1795 (0.0927)
Black vs. White	Other Violent	0.0052 (0.2480)	0.5552*** (0.1185)	-0.2967 (0.5050)	-0.2788* (0.1273)	-0.3949*** (0.1133)
Black vs. White	Burglary	-0.2906 (0.2069)	0.4047*** (0.1029)	0.4075 (0.4909)	-0.2631* (0.1051)	-0.1209 (0.0940)
Black vs. White	Larceny	-0.1650 (0.1958)	0.1208 (0.0999)	0.3994 (0.5008)	-0.1173 (0.1004)	0.0329 (0.0930)
Black vs. White	Motor Vehicle Theft	-0.0503 (0.2545)	0.2021 (0.1257)	0.0118 (0.5598)	0.0652 (0.1422)	-0.2205 (0.1174)
Black vs. White	Forgery	-0.2245 (0.2379)	0.1188 (0.1326)	0.9477 (0.9057)	0.0174 (0.1240)	-0.0734 (0.1182)
Black vs. White	Fraud	0.3447 (0.2175)	0.2273 (0.1350)	-0.5992 (1.0058)	0.0030 (0.1264)	-0.3521** (0.1222)
Black vs. White	Other Property	-0.3030 (0.2364)	0.3130** (0.1126)	0.2955 (0.5334)	-0.1678 (0.1142)	-0.1133 (0.1072)
Black vs. White	Drug Sales	-0.4557* (0.1919)	0.0933 (0.0997)	1.2245* (0.5330)	-0.1982* (0.0982)	0.1913* (0.0900)
Black vs. White	Other Drugs	-0.6252*** (0.1834)	0.3602*** (0.0936)	0.9951 (0.5088)	-0.3738*** (0.0948)	0.3681*** (0.0875)
Black vs. White	Weapons	0.3243 (0.2833)	0.2644 (0.1360)	0.0983 (0.5471)	-0.2998* (0.1342)	-0.0794 (0.1245)
Black vs. White	Driving Related	0.7772** (0.2905)	0.0686 (0.1481)	-1.1355 (0.8879)	0.5182*** (0.1362)	-0.5325*** (0.1215)

Notes: Results are from individual logistic regressions with an individual outcome category compared against any other dispositional outcome. Each model is run with state and time fixed effects included, but output for the fixed effects is omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 5C – Coefficients on Interaction Terms between Hispanic and Current Offense from Logistic Regressions on Individual Dispositional Outcomes

		Pairwise Comparisons				
		Diversions	Dismissals	Acquittals	No Custodial	Custodial
Race Groups	Current Offense	vs. Anything Else				
		Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
Hisp vs. White	Murder	12.9865 (806.5310)	1.1241*** (0.3285)	0.6330 (0.8353)	0.2087 (0.3332)	-1.1863*** (0.2750)
Hisp vs. White	Rape	0.3851 (0.4039)	0.1254 (0.1919)	0.6884 (0.7628)	0.1627 (0.2183)	-0.4594* (0.1798)
Hisp vs. White	Robbery	-0.0694 (0.3105)	0.4061** (0.1339)	0.1366 (0.6393)	-0.0030 (0.1464)	-0.3938** (0.1240)
Hisp vs. White	Assault	-0.0389 (0.2185)	0.1067 (0.1121)	-0.4076 (0.5143)	-0.2538* (0.1221)	0.1003 (0.1076)
Hisp vs. White	Other Violent	-0.4573 (0.2732)	0.2751* (0.1358)	-0.8421 (0.6072)	-0.2670 (0.1475)	0.0556 (0.1264)
Hisp vs. White	Burglary	-0.4905* (0.2339)	0.3954** (0.1202)	-0.3877 (0.5887)	-0.2202 (0.1258)	-0.0933 (0.1099)
Hisp vs. White	Larceny	0.0328 (0.2213)	0.1263 (0.1219)	-1.0049 (0.7297)	-0.1028 (0.1240)	-0.0208 (0.1125)
Hisp vs. White	Motor Vehicle Theft	-0.6042* (0.2952)	-0.0186 (0.1432)	-0.7043 (0.6694)	-0.2652 (0.1693)	0.2465 (0.1319)
Hisp vs. White	Forgery	-0.5182 (0.3039)	0.2576 (0.1608)	1.1374 (1.0326)	0.0017 (0.1556)	-0.0763 (0.1465)
Hisp vs. White	Fraud	-0.1449 (0.2593)	-0.0008 (0.1689)	-0.4149 (1.2519)	0.4981** (0.1533)	-0.3627* (0.1470)
Hisp vs. White	Other Property	-0.8332** (0.2982)	0.3418* (0.1362)	-0.8388 (0.7439)	-0.2086 (0.1418)	0.0209 (0.1289)
Hisp vs. White	Drug Sales	-0.8071*** (0.2187)	0.1549 (0.1154)	0.3166 (0.6109)	-0.3321** (0.1166)	0.2957** (0.1048)
Hisp vs. White	Other Drugs	0.1559 (0.1999)	0.1108 (0.1104)	-0.0729 (0.6142)	0.0197 (0.1127)	-0.1540 (0.1024)
Hisp vs. White	Weapons	-0.4576 (0.3599)	0.1924 (0.1610)	-0.6658 (0.6772)	-0.3932* (0.1663)	0.2010 (0.1464)
Hisp vs. White	Driving Related	-0.0930 (0.3131)	-0.1776 (0.1593)	-1.0244 (0.8223)	0.3557* (0.1450)	-0.1558 (0.1284)

Notes: Results are from individual logistic regressions with an individual outcome category compared against any other dispositional outcome. Each model is run with state and time fixed effects included, but output for the fixed effects is omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 5D – Coefficients on Interaction Terms between Race and Prior Arrests from Logistic Regressions on Individual Dispositional Outcomes

		Pairwise Comparisons				
		Diversions	Dismissals	Acquittals	No Custodial	Custodial
Race Groups	Prior Record	vs. Anything Else				
		Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
Black vs. White	Some	-0.0535 (0.0637)	0.0192 (0.0421)	0.3073 (0.1846)	-0.1025* (0.0412)	-0.0369 (0.0408)
Black vs. White	Max	0.1341 (0.0977)	-0.0105 (0.0469)	0.3807 (0.2087)	-0.1548** (0.0500)	-0.1522*** (0.0448)
Black vs. White	Missing	0.1593 (0.1636)	0.1826* (0.0736)	0.3594 (0.3670)	-0.1907** (0.0723)	-0.1630* (0.0711)
Hisp vs. White	Some	0.1542* (0.0711)	0.0155 (0.0487)	0.3777 (0.2373)	-0.0704 (0.0487)	-0.1801*** (0.0447)
Hisp vs. White	Max	-0.0267 (0.1228)	-0.1505** (0.0571)	0.1215 (0.2874)	0.1266* (0.0603)	-0.2291*** (0.0518)
Hisp vs. White	Missing	0.2610 (0.1804)	0.1255 (0.0822)	0.5380 (0.4335)	0.0046 (0.0809)	-0.3231*** (0.0776)

Notes: Results are from individual logistic regressions with an individual outcome category compared against any other dispositional outcome. Each model is run with state and time fixed effects included, but output for the fixed effects is omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 5E – Main Coefficients on Current Offense Variables from Logistic Regressions for Individual Dispositional Outcomes

Main Effects	Current Offense	Pairwise Comparisons				
		Diversions	Dismissals	Acquittals	No Custodial	Custodial
		vs. Anything Else				
		Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
	Murder	-15.1932 (806.5304)	-0.9973*** (0.2604)	1.2345 (0.6709)	-0.5747* (0.2419)	1.3579*** (0.2045)
	Rape	-0.7979** (0.2674)	-0.0407 (0.1229)	-0.0114 (0.5541)	-0.6402*** (0.1369)	0.7950*** (0.1149)
	Robbery	-0.7133*** (0.2107)	-0.3699*** (0.0921)	-0.1774 (0.4627)	-0.5640*** (0.0989)	0.8681*** (0.0849)
	Assault	-0.1006 (0.1387)	0.2898*** (0.0706)	0.6773* (0.3422)	-0.2747*** (0.0750)	-0.0849 (0.0698)
	Other Violent	-0.1521 (0.1655)	-0.1286 (0.0857)	0.7739* (0.3744)	-0.0567 (0.0884)	0.2013* (0.0812)
	Burglary	0.0571 (0.1410)	-0.5841*** (0.0756)	-0.2806 (0.3841)	-0.1489* (0.0756)	0.5958*** (0.0695)
	Larceny	0.3492* (0.1357)	-0.4310*** (0.0729)	-0.6025 (0.3937)	0.1442* (0.0729)	0.1681* (0.0691)
	Motor Vehicle Theft	-0.1607 (0.1851)	0.0388 (0.0938)	0.2942 (0.4413)	-0.4318*** (0.1065)	0.3095*** (0.0876)
	Forgery	0.5416** (0.1652)	-0.5353*** (0.0961)	-1.5921* (0.7768)	0.2379** (0.0901)	0.1146 (0.0866)
	Fraud	0.6311*** (0.1536)	-0.4167*** (0.0961)	-1.1864 (0.6611)	0.2256* (0.0900)	-0.0426 (0.0879)
	Other Property	0.3305* (0.1586)	-0.2929*** (0.0827)	-0.1822 (0.4180)	0.0946 (0.0828)	0.1122 (0.0792)
	Drug Sales	0.4213** (0.1342)	-0.6583*** (0.0760)	-1.1326* (0.4499)	0.0529 (0.0738)	0.3728*** (0.0687)
	Other Drugs	1.4307*** (0.1256)	-0.3363*** (0.0685)	-1.2155** (0.4162)	0.2629*** (0.0687)	-0.4958*** (0.0650)
	Weapons	-0.2376 (0.2267)	-0.2269* (0.1118)	0.6486 (0.4521)	0.0400 (0.1085)	0.1735 (0.1018)
	Driving Related	-0.6154** (0.2020)	-0.9240*** (0.0940)	-0.2588 (0.4629)	-0.3112*** (0.0895)	0.9918*** (0.0800)

Notes: Results are from individual logistic regressions with an individual outcome category compared against any other dispositional outcome. Each model is run with state and time fixed effects included, but output for the fixed effects is omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 5F – Main Coefficients on Prior Arrest Variables from Logistic Regressions for Individual Dispositional Outcomes

		Pairwise Comparisons				
		Diversions	Dismissals	Acquittals	No Custodial	Custodial
Main Effects	Prior Record	vs. Anything Else				
		Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
Missing	Some	-0.7734*** (0.0440)	-0.1673*** (0.0321)	-0.3666* (0.1542)	-0.1968*** (0.0303)	0.7098*** (0.0304)
Missing	Max	-1.9905*** (0.0728)	-0.1227*** (0.0373)	-0.2578 (0.1803)	-0.7084*** (0.0384)	1.3074*** (0.0347)
Missing	Missing	-0.8938*** (0.1225)	-0.1392* (0.0613)	-0.4016 (0.3263)	-0.1961*** (0.0576)	0.7169*** (0.0571)

Notes: Results are from individual logistic regressions with an individual outcome category compared against any other dispositional outcome. Each model is run with state and time fixed effects included, but output for the fixed effects is omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6A – Main Coefficients of Race from Multinomial Logistic Regression (Panel A)

		Pairwise Comparisons			
		Diversions	Acquittals	No Custodial	Custodial
		vs. Dismissals			
Main Effects	Race Comparison	Log Odds	Log Odds	Log Odds	Log Odds
	Black vs. White	0.0755 (0.1907)	0.0159 (0.4393)	0.0998 (0.1084)	0.2188* (0.1028)
	Hispanic vs. White	-0.1180 (0.2112)	0.4394 (0.5075)	-0.0521 (0.1268)	0.2500* (0.1188)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6B – Main Coefficients of Race from Multinomial Logistic Regression (Panel B)

Primary Variables		Pairwise Comparisons					
		Acquittals	No Custodial	Custodial	No Custodial	Custodial	Custodial
		vs. Diversions			vs. Acquittals		vs. No Custodial
Main Effects	Race Comparison	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
	Black vs. White	-0.0596 (0.4666)	0.0243 (0.1910)	0.1433 (0.1870)	0.0839 (0.4399)	0.2029 (0.4382)	0.1190 (0.1041)
	Hispanic vs. White	0.5573 (0.5349)	0.0658 (0.2134)	0.3680 (0.2046)	-0.4915 (0.5087)	-0.1893 (0.5060)	0.3021* (0.1227)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6C – Coefficients on Interaction Terms between Black and Current Offense from Multinomial Logistic Regression (Panel A)

Interactions		Pairwise Comparisons			
		Diversions	Acquittals	No Custodial	Custodial
		vs. Dismissals			
Race Groups	Current Offense	Log Odds	Log Odds	Log Odds	Log Odds
Black vs. White	Murder	11.3041 (648.8418)	-0.1159 (0.7935)	-1.0795** (0.3764)	-0.8689** (0.3086)
Black vs. White	Rape	-0.0749 (0.3915)	0.9627 (0.6586)	-0.5141* (0.2112)	-0.6380*** (0.1762)
Black vs. White	Robbery	-0.2392 (0.2764)	0.3037 (0.5537)	-0.6629*** (0.1450)	-0.6355*** (0.1256)
Black vs. White	Assault	-0.4323* (0.2087)	-0.0959 (0.4471)	-0.4658*** (0.1176)	-0.3394** (0.1086)
Black vs. White	Other Violent	-0.3811 (0.2610)	-0.6611 (0.5114)	-0.5992*** (0.1476)	-0.6326*** (0.1332)
Black vs. White	Burglary	-0.5815** (0.2203)	0.1118 (0.4965)	-0.5062*** (0.1259)	-0.3872*** (0.1141)
Black vs. White	Larceny	-0.2410 (0.2086)	0.3007 (0.5058)	-0.1644 (0.1199)	-0.0736 (0.1123)
Black vs. White	Motor Vehicle Theft	-0.1759 (0.2693)	-0.1091 (0.5665)	-0.0821 (0.1644)	-0.2646 (0.1386)
Black vs. White	Forgery	-0.2963 (0.2584)	0.8623 (0.9110)	-0.0806 (0.1541)	-0.1406 (0.1485)
Black vs. White	Fraud	0.1293 (0.2398)	-0.7658 (1.0106)	-0.1579 (0.1570)	-0.3918* (0.1534)
Black vs. White	Other Property	-0.5207* (0.2495)	0.0760 (0.5391)	-0.3403* (0.1349)	-0.2960* (0.1276)
Black vs. White	Drug Sales	-0.5104* (0.2057)	1.1299* (0.5379)	-0.2240 (0.1194)	0.0177 (0.1108)
Black vs. White	Other Drugs	-0.7832*** (0.1956)	0.7186 (0.5131)	-0.5381*** (0.1126)	-0.0456 (0.1054)
Black vs. White	Weapons	0.1079 (0.3005)	-0.0887 (0.5558)	-0.4056* (0.1621)	-0.2377 (0.1519)
Black vs. White	Driving Related	0.6786* (0.3141)	-1.1846 (0.8956)	0.3411 (0.1760)	-0.3295* (0.1590)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6D – Coefficients on Interaction Terms between Black and Current Offense from Multinomial Logistic Regression (Panel B)

Interactions		Pairwise Comparisons					
		Acquittals vs. Diversions	No Custodial	Custodial	No Custodial vs. Acquittals	Custodial	Custodial vs. No Custodial
Race Groups	Current Offense	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
Black vs. White	Murder	-11.4199 (648.8422)	-12.3835 (648.8418)	-12.1730 (648.8417)	-0.9636 (0.7960)	-0.7530 (0.7658)	0.2106 (0.3126)
Black vs. White	Rape	1.0377 (0.7427)	-0.4392 (0.4048)	-0.5631 (0.3864)	-1.4769* (0.6665)	-1.6008* (0.6563)	-0.1239 (0.2026)
Black vs. White	Robbery	0.5429 (0.6033)	-0.4237 (0.2807)	-0.3964 (0.2703)	-0.9665 (0.5563)	-0.9392 (0.5513)	0.0273 (0.1351)
Black vs. White	Assault	0.3364 (0.4804)	-0.0335 (0.2117)	0.0928 (0.2062)	-0.3699 (0.4490)	-0.2435 (0.4465)	0.1263 (0.1152)
Black vs. White	Other Violent	-0.2800 (0.5571)	-0.2181 (0.2653)	-0.2515 (0.2573)	0.0619 (0.5143)	0.0284 (0.5100)	-0.0335 (0.1425)
Black vs. White	Burglary	0.6933 (0.5286)	0.0752 (0.2212)	0.1943 (0.2139)	-0.6180 (0.4972)	-0.4990 (0.4942)	0.1190 (0.1165)
Black vs. White	Larceny	0.5417 (0.5338)	0.0765 (0.2086)	0.1673 (0.2037)	-0.4651 (0.5061)	-0.3743 (0.5042)	0.0908 (0.1129)
Black vs. White	Motor Vehicle Theft	0.0669 (0.6094)	0.0938 (0.2778)	-0.0886 (0.2633)	0.0269 (0.5710)	-0.1555 (0.5641)	-0.1824 (0.1552)
Black vs. White	Forgery	1.1587 (0.9326)	0.2158 (0.2529)	0.1558 (0.2481)	-0.9429 (0.9098)	-1.0029 (0.9087)	-0.0600 (0.1399)
Black vs. White	Fraud	-0.8951 (1.0252)	-0.2872 (0.2340)	-0.5211* (0.2302)	0.6079 (1.0094)	0.3740 (1.0088)	-0.2339 (0.1451)
Black vs. White	Other Property	0.5968 (0.5783)	0.1804 (0.2497)	0.2247 (0.2455)	-0.4163 (0.5399)	-0.3720 (0.5377)	0.0443 (0.1295)
Black vs. White	Drug Sales	1.6404** (0.5629)	0.2865 (0.2047)	0.5282** (0.1990)	-1.3539* (0.5378)	-1.1122* (0.5358)	0.2417* (0.1096)
Black vs. White	Other Drugs	1.5018** (0.5374)	0.2451 (0.1957)	0.7376*** (0.1906)	-1.2567* (0.5135)	-0.7642 (0.5118)	0.4925*** (0.1069)
Black vs. White	Weapons	-0.1966 (0.6093)	-0.5136 (0.2992)	-0.3456 (0.2926)	-0.3170 (0.5556)	-0.1490 (0.5525)	0.1680 (0.1503)
Black vs. White	Driving Related	-1.8631* (0.9304)	-0.3375 (0.3071)	-1.0081*** (0.2978)	1.5256 (0.8940)	0.8551 (0.8902)	-0.6706*** (0.1479)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6E – Coefficients on Interaction Terms between Hispanic and Current Offense from Multinomial Logistic Regression (Panel A)

		Pairwise Comparisons			
		Diversions	Acquittals vs. Dismissals	No Custodial	Custodial
Race Groups	Current Offense	Log Odds	Log Odds	Log Odds	Log Odds
Hisp vs. White	Murder	11.8855 (648.8418)	-0.2336 (0.8747)	-0.6950 (0.4129)	-1.4801*** (0.3490)
Hisp vs. White	Rape	0.2935 (0.4264)	0.6063 (0.7746)	0.0268 (0.2500)	-0.3776 (0.2119)
Hisp vs. White	Robbery	-0.3279 (0.3261)	-0.1335 (0.6464)	-0.2960 (0.1703)	-0.5260*** (0.1476)
Hisp vs. White	Assault	-0.1134 (0.2325)	-0.4790 (0.5198)	-0.2907* (0.1398)	-0.0006 (0.1266)
Hisp vs. White	Other Violent	-0.6192* (0.2906)	-1.0184 (0.6147)	-0.4153* (0.1711)	-0.1828 (0.1507)
Hisp vs. White	Burglary	-0.7286** (0.2506)	-0.6613 (0.5950)	-0.4705** (0.1486)	-0.3696** (0.1331)
Hisp vs. White	Larceny	-0.0491 (0.2389)	-1.0787 (0.7349)	-0.1654 (0.1470)	-0.0991 (0.1366)
Hisp vs. White	Motor Vehicle Theft	-0.5238 (0.3136)	-0.6734 (0.6770)	-0.2258 (0.1943)	0.1115 (0.1564)
Hisp vs. White	Forgery	-0.6913* (0.3278)	0.9268 (1.0393)	-0.2039 (0.1880)	-0.2606 (0.1809)
Hisp vs. White	Fraud	-0.1455 (0.2905)	-0.4495 (1.2584)	0.3500 (0.1930)	-0.2064 (0.1895)
Hisp vs. White	Other Property	-1.0315** (0.3140)	-1.0639 (0.7498)	-0.3849* (0.1652)	-0.2315 (0.1533)
Hisp vs. White	Drug Sales	-0.8152*** (0.2355)	0.1998 (0.6166)	-0.3702** (0.1393)	0.0213 (0.1283)
Hisp vs. White	Other Drugs	0.0461 (0.2160)	-0.1634 (0.6193)	-0.0696 (0.1331)	-0.1240 (0.1244)
Hisp vs. White	Weapons	-0.5463 (0.3801)	-0.7920 (0.6870)	-0.4323* (0.1976)	-0.0375 (0.1779)
Hisp vs. White	Driving Related	0.1475 (0.3400)	-0.8376 (0.8320)	0.4460* (0.1889)	0.0708 (0.1706)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6F – Coefficients on Interaction Terms between Hispanic and Current Offense from Multinomial Logistic Regression (Panel B)

Race Groups	Current Offense	Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial	Custodial vs. No Custodial
		Log Odds	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
Hisp vs. White	Murder	-12.1191 (648.8423)	-12.5805 (648.8418)	-13.3656 (648.8418)	-0.4613 (0.8780)	-1.2465 (0.8472)	-0.7852* (0.3547)
Hisp vs. White	Rape	0.3127 (0.8535)	-0.2667 (0.4416)	-0.6711 (0.4150)	-0.5795 (0.7827)	-0.9839 (0.7703)	-0.4044 (0.2381)
Hisp vs. White	Robbery	0.1944 (0.7053)	0.0319 (0.3322)	-0.1981 (0.3170)	-0.1625 (0.6498)	-0.3925 (0.6433)	-0.2300 (0.1601)
Hisp vs. White	Assault	-0.3655 (0.5535)	-0.1773 (0.2383)	0.1129 (0.2268)	0.1882 (0.5227)	0.4784 (0.5186)	0.2901* (0.1369)
Hisp vs. White	Other Violent	-0.3992 (0.6600)	0.2039 (0.2969)	0.4364 (0.2815)	0.6031 (0.6181)	0.8356 (0.6118)	0.2325 (0.1624)
Hisp vs. White	Burglary	0.0673 (0.6287)	0.2581 (0.2538)	0.3590 (0.2411)	0.1907 (0.5966)	0.2917 (0.5922)	0.1009 (0.1388)
Hisp vs. White	Larceny	-1.0296 (0.7582)	-0.1162 (0.2405)	-0.0500 (0.2299)	0.9133 (0.7356)	0.9795 (0.7329)	0.0662 (0.1389)
Hisp vs. White	Motor Vehicle Theft	-0.1496 (0.7256)	0.2980 (0.3270)	0.6353* (0.3029)	0.4476 (0.6836)	0.7849 (0.6734)	0.3373 (0.1819)
Hisp vs. White	Forgery	1.6181 (1.0711)	0.4875 (0.3252)	0.4307 (0.3142)	-1.1307 (1.0386)	-1.1874 (1.0365)	-0.0567 (0.1757)
Hisp vs. White	Fraud	-0.3040 (1.2741)	0.4955 (0.2810)	-0.0609 (0.2727)	0.7995 (1.2563)	0.2431 (1.2552)	-0.5564*** (0.1742)
Hisp vs. White	Other Property	-0.0324 (0.7960)	0.6467* (0.3172)	0.8001** (0.3066)	0.6791 (0.7515)	0.8325 (0.7482)	0.1534 (0.1590)
Hisp vs. White	Drug Sales	1.0150 (0.6445)	0.4450 (0.2364)	0.8365*** (0.2259)	-0.5700 (0.6171)	-0.1785 (0.6141)	0.3916** (0.1298)
Hisp vs. White	Other Drugs	-0.2095 (0.6420)	-0.1157 (0.2174)	-0.1701 (0.2078)	0.0938 (0.6200)	0.0394 (0.6176)	-0.0544 (0.1270)
Hisp vs. White	Weapons	-0.2457 (0.7598)	0.1140 (0.3828)	0.5088 (0.3680)	0.3597 (0.6888)	0.7545 (0.6826)	0.3948* (0.1833)
Hisp vs. White	Driving Related	-0.9851 (0.8753)	0.2985 (0.3334)	-0.0767 (0.3192)	1.2837 (0.8296)	0.9084 (0.8250)	-0.3753* (0.1574)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6G – Coefficients on Interaction Terms between Race and Prior Arrests from Multinomial Logistic Regression (Panel A)

		Pairwise Comparisons			
		Diversions	Acquittals vs. Dismissals	No Custodial	Custodial
Race Groups	Prior Record	Log Odds	Log Odds	Log Odds	Log Odds
Black vs. White	Some	-0.0969 (0.0707)	0.2752 (0.1866)	-0.1020* (0.0498)	-0.0567 (0.0495)
Black vs. White	Max	0.0872 (0.1037)	0.3597 (0.2109)	-0.1351* (0.0593)	-0.0873 (0.0537)
Black vs. White	Missing	0.0085 (0.1715)	0.2518 (0.3700)	-0.2482** (0.0862)	-0.2293** (0.0852)
Hisp vs. White	Some	0.1123 (0.0801)	0.3646 (0.2396)	-0.0942 (0.0591)	-0.1911*** (0.0554)
Hisp vs. White	Max	0.0600 (0.1307)	0.2323 (0.2903)	0.1715* (0.0725)	-0.1151 (0.0633)
Hisp vs. White	Missing	0.1408 (0.1905)	0.4643 (0.4368)	-0.0918 (0.0967)	-0.3390*** (0.0938)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6H – Coefficients on Interaction Terms between Race and Prior Arrests from Multinomial Logistic Regression (Panel B)

		Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial	Custodial vs. No Custodial
Race Groups	Prior Record	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
Black vs. White	Some	0.3722 (0.1936)	-0.0050 (0.0701)	0.0402 (0.0689)	-0.3772* (0.1870)	-0.3319 (0.1867)	0.0453 (0.0486)
Black vs. White	Max	0.2725 (0.2289)	-0.2222* (0.1052)	-0.1744 (0.1015)	-0.4948* (0.2124)	-0.4469* (0.2107)	0.0478 (0.0565)
Black vs. White	Missing	0.2433 (0.3984)	-0.2566 (0.1719)	-0.2377 (0.1697)	-0.5000 (0.3709)	-0.4811 (0.3703)	0.0189 (0.0837)
Hisp vs. White	Some	0.2523 (0.2462)	-0.2065** (0.0798)	-0.3034*** (0.0757)	-0.4588 (0.2402)	-0.5557* (0.2389)	-0.0969 (0.0555)
Hisp vs. White	Max	0.1723 (0.3114)	0.1115 (0.1319)	-0.1751 (0.1260)	-0.0608 (0.2918)	-0.3474 (0.2892)	-0.2866*** (0.0665)
Hisp vs. White	Missing	0.3235 (0.4662)	-0.2326 (0.1904)	-0.4798** (0.1859)	-0.5561 (0.4378)	-0.8033 (0.4365)	-0.2471** (0.0924)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6I – Main Coefficients on Current Offense Variables from Multinomial Logistic Regression (Panel A)

		Pairwise Comparisons			
		Diversions	Acquittals	No Custodial	Custodial
Main Effects	Current Offense	Log Odds	Log Odds	Log Odds	Log Odds
	Murder	-14.1008 (648.8410)	1.9482** (0.7050)	0.3296 (0.3192)	1.4958*** (0.2722)
	Rape	-0.6924* (0.2809)	0.0170 (0.5611)	-0.4523** (0.1592)	0.5180*** (0.1355)
	Robbery	-0.3931 (0.2212)	0.0828 (0.4675)	-0.1629 (0.1168)	0.7692*** (0.1013)
	Assault	-0.2570 (0.1466)	0.4975 (0.3453)	-0.3816*** (0.0863)	-0.2499** (0.0811)
	Other Violent	-0.0320 (0.1762)	0.8504* (0.3791)	0.0569 (0.1041)	0.2261* (0.0966)
	Burglary	0.5027*** (0.1515)	0.1422 (0.3880)	0.3243*** (0.0911)	0.7901*** (0.0845)
	Larceny	0.6443*** (0.1452)	-0.2912 (0.3969)	0.4113*** (0.0868)	0.4140*** (0.0829)
	Motor Vehicle Theft	-0.1726 (0.1966)	0.2522 (0.4461)	-0.3735** (0.1232)	0.1547 (0.1034)
	Forgery	0.9083*** (0.1804)	-1.1899 (0.7801)	0.5605*** (0.1116)	0.4725*** (0.1082)
	Fraud	0.8895*** (0.1694)	-0.8507 (0.6648)	0.4567*** (0.1112)	0.2813* (0.1096)
	Other Property	0.5305** (0.1690)	0.0158 (0.4220)	0.2768** (0.0982)	0.2779** (0.0945)
	Drug Sales	0.9046*** (0.1456)	-0.6294 (0.4533)	0.5401*** (0.0902)	0.7308*** (0.0849)
	Other Drugs	1.5288*** (0.1349)	-0.9568* (0.4190)	0.4497*** (0.0817)	-0.0394 (0.0782)
	Weapons	-0.0513 (0.2413)	0.8045 (0.4592)	0.1879 (0.1321)	0.2656* (0.1250)
	Driving Related	0.1338 (0.2155)	0.4498 (0.4685)	0.4622*** (0.1130)	1.2311*** (0.1017)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6J – Main Coefficients on Current Offense Variables from Multinomial Logistic Regression (Panel B)

Main Effects	Current Offense	Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial vs. No Custodial	
		Log Odds	Log Odds	Log Odds	Log Odds	Log Odds	
	Murder	16.0490 (648.8413)	14.4303 (648.8410)	15.5966 (648.8410)	-1.6186* (0.6989)	-0.4523 (0.6787)	1.1663*** (0.2540)
	Rape	0.7094 (0.6099)	0.2401 (0.2884)	1.2103*** (0.2753)	-0.4693 (0.5646)	0.5010 (0.5588)	0.9702*** (0.1493)
	Robbery	0.4759 (0.5049)	0.2303 (0.2245)	1.1624*** (0.2160)	-0.2456 (0.4692)	0.6865 (0.4655)	0.9321*** (0.1082)
	Assault	0.7545* (0.3658)	-0.1247 (0.1489)	0.0070 (0.1455)	-0.8791* (0.3465)	-0.7474* (0.3452)	0.1317 (0.0859)
	Other Violent	0.8824* (0.4054)	0.0889 (0.1775)	0.2581 (0.1727)	-0.7935* (0.3801)	-0.6244 (0.3780)	0.1692 (0.0997)
	Burglary	-0.3605 (0.4062)	-0.1784 (0.1514)	0.2874 (0.1469)	0.1822 (0.3882)	0.6480 (0.3866)	0.4658*** (0.0848)
	Larceny	-0.9355* (0.4134)	-0.2331 (0.1451)	-0.2304 (0.1423)	0.7025 (0.3971)	0.7052 (0.3962)	0.0027 (0.0831)
	Motor Vehicle Theft	0.4248 (0.4743)	-0.2009 (0.2032)	0.3273 (0.1916)	-0.6257 (0.4492)	-0.0975 (0.4443)	0.5282*** (0.1160)
	Forgery	-2.0982** (0.7918)	-0.3478* (0.1765)	-0.4358* (0.1734)	1.7504* (0.7793)	1.6624* (0.7788)	-0.0880 (0.1023)
	Fraud	-1.7402* (0.6757)	-0.4328** (0.1654)	-0.6082*** (0.1631)	1.3074* (0.6639)	1.1320 (0.6636)	-0.1754 (0.1037)
	Other Property	-0.5147 (0.4434)	-0.2537 (0.1688)	-0.2526 (0.1661)	0.2610 (0.4222)	0.2621 (0.4212)	0.0011 (0.0947)
	Drug Sales	-1.5341** (0.4669)	-0.3646* (0.1442)	-0.1738 (0.1404)	1.1695** (0.4530)	1.3603** (0.4520)	0.1908* (0.0831)
	Other Drugs	-2.4856*** (0.4324)	-1.0791*** (0.1347)	-1.5681*** (0.1319)	1.4065*** (0.4192)	0.9174* (0.4184)	-0.4891*** (0.0787)
	Weapons	0.8558 (0.5002)	0.2392 (0.2396)	0.3169 (0.2347)	-0.6166 (0.4585)	-0.5389 (0.4566)	0.0777 (0.1220)
	Driving Related	0.3161 (0.5017)	0.3284 (0.2131)	1.0973*** (0.2067)	0.0123 (0.4677)	0.7813 (0.4649)	0.7689*** (0.0978)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6K – Main Coefficients on Prior Arrests Variables from Multinomial Logistic Regression (Panel A)

		Pairwise Comparisons			
		Diversions	Acquittals	No Custodial vs. Dismissals	Custodial
Main Effects	Prior Record	Log Odds	Log Odds	Log Odds	Log Odds
	Some	-0.5348*** (0.0501)	-0.2273 (0.1556)	-0.0058 (0.0375)	0.6121*** (0.0377)
	Max	-1.7042*** (0.0781)	-0.1311 (0.1819)	-0.4349*** (0.0465)	0.8912*** (0.0423)
	Missing	-0.6961*** (0.1307)	-0.2959 (0.3290)	-0.0415 (0.0705)	0.5777*** (0.0702)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 6L – Main Coefficients on Prior Arrests Variables from Multinomial Logistic Regression (Panel B)

		Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial	Custodial vs. No Custodial
Main Effects	Prior Record	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds	Log Odds
	Some	0.3075 (0.1592)	0.5289*** (0.0488)	1.1469*** (0.0482)	0.2215 (0.1556)	0.8394*** (0.1555)	0.6179*** (0.0359)
	Max	1.5731*** (0.1933)	1.2693*** (0.0785)	2.5954*** (0.0757)	-0.3038 (0.1827)	1.0223*** (0.1815)	1.3261*** (0.0434)
	Missing	0.4002 (0.3464)	0.6546*** (0.1295)	1.2738*** (0.1274)	0.2544 (0.3292)	0.8736** (0.3288)	0.6192*** (0.0663)

Notes: Results are from an overall multinomial logistic regression with state and time fixed effects included, but output omitted. Reference category is whites with no prior arrests and a most serious offense charge of public order crimes.

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

Table 7A – Relative Risk Ratios for Blacks vs Whites with Max Prior Arrests (Panel A)

Prior Record	Arrest Charge	Pairwise Comparisons			
		Diversions	Acquittals	No Custodial vs. Dismissals	Custodial
		RRR	RRR	RRR	RRR
Max	Murder	95480.52 (62000000)	1.2966 (0.8946)	0.3280** (0.1197)	0.4784* (0.1413)
Max	Rape	1.0916 (0.3890)	3.8127* (2.0254)	0.5773** (0.1098)	0.6026*** (0.0917)
Max	Robbery	0.9263 (0.2055)	1.9724 (0.7560)	0.4975*** (0.0548)	0.6041*** (0.0525)
Max	Assault	.7636* (0.0984)	1.3227 (0.2738)	0.6059*** (0.0431)	0.8123*** (0.0489)
Max	Other Violent	0.8037 (0.1638)	0.7517 (0.2459)	0.5302*** (0.0609)	0.6059*** (0.0598)
Max	Burglary	0.6578** (0.0955)	1.6280 (0.4822)	0.5819*** (0.0482)	0.7744*** (0.0534)
Max	Larceny	0.9246 (0.1172)	1.9665* (0.6129)	0.8189** (0.0604)	1.0596 (0.0699)
Max	Motor Vehicle Theft	0.9868 (0.2097)	1.3054 (0.5238)	0.8892 (0.1193)	0.8755 (0.0914)
Max	Forgery	0.8748 (0.1743)	3.4485 (2.8290)	0.8906 (0.1090)	0.9910 (0.1171)
Max	Fraud	1.3389 (0.2348)	0.6769 (0.6307)	0.8243 (0.1043)	0.7708* (0.0961)
Max	Other Property	0.6990 (0.1310)	1.5708 (0.5752)	0.6869*** (0.0667)	0.8483 (0.0765)
Max	Drug Sales	0.7062** (0.0869)	4.5064*** (1.6432)	0.7716*** (0.0568)	1.1610* (0.0747)
Max	Other Drugs	0.5376*** (0.0545)	2.9867*** (0.9680)	0.5636*** (0.0344)	1.0898 (0.0583)
Max	Weapons	1.3107 (0.3299)	1.3323 (0.5213)	0.6434*** (0.0852)	0.8993 (0.1100)
Max	Driving Related	2.3192** (0.6167)	0.4453 (0.3571)	1.357691* (0.2013)	0.8204 (0.1071)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7B – Relative Risk Ratios for Blacks vs Whites with Max Prior Arrests (Panel B)

Prior Record	Arrest Charge	Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial	Custodial vs. No Custodial
		RRR	RRR	RRR	RRR	RRR	RRR
Max	Murder	0.0000 (0.0088)	0.0000 (0.0022)	0.0000 (0.0033)	0.2530* (0.1753)	0.3690 (0.2430)	1.4585 (0.4371)
Max	Rape	3.4926* (2.1609)	0.5288 (0.1964)	0.5520 (0.1945)	0.1514*** (0.0819)	0.1581*** (0.0836)	1.0439 (0.1903)
Max	Robbery	2.1294 (0.9198)	0.5371** (0.1223)	0.6522 (0.1414)	0.2522*** (0.0976)	0.3063** (0.1166)	1.2143 (0.1220)
Max	Assault	1.7321* (0.4104)	0.7934 (0.1066)	1.0637 (0.1369)	0.4581*** (0.0967)	0.6141* (0.1274)	1.3407*** (0.0961)
Max	Other Violent	0.9352 (0.3480)	0.6597* (0.1384)	0.7538 (0.1520)	0.7054 (0.2340)	0.8061 (0.2629)	1.1427 (0.1270)
Max	Burglary	0.7932 (2.8300)	0.1302 (-0.8300)	0.1641 (1.1700)	0.1063 (-3.4600)	0.1398 (-2.5300)	1.3309*** (0.0970)
Max	Larceny	2.1268* (0.6994)	0.8857 (0.1129)	1.1460 (0.1407)	0.4164** (0.1300)	0.5388* (0.1672)	1.2940*** (0.0864)
Max	Motor Vehicle Theft	1.3229 (0.5819)	0.9011 (0.2014)	0.8872 (0.1842)	0.6812 (0.2776)	0.6706 (0.2675)	-0.0156 (0.1257)
Max	Forgery	3.9418 (3.2863)	1.0180 (0.1961)	1.1328 (0.2136)	0.2583 (0.2115)	0.2874 (0.2352)	1.1128 (0.1191)
Max	Fraud	0.5056 (0.4743)	0.6156** (0.1035)	0.5757*** (0.0951)	1.2177 (1.1330)	1.1388 (1.0593)	0.9352 (0.1069)
Max	Other Property	2.2473 (0.8994)	0.9827 (0.1851)	1.2137 (0.2245)	0.4373* (0.1606)	0.5401 (0.1973)	1.2351* (0.1146)
Max	Drug Sales	6.3811*** (2.4092)	1.0926 (0.1334)	1.6440*** (0.1911)	0.1712*** (0.0624)	0.2576*** (0.0934)	1.5047*** (0.0937)
Max	Other Drugs	5.5554*** (1.8593)	1.0483 (0.1078)	2.0270*** (0.1965)	0.1887*** (0.0613)	0.3649** (0.1180)	1.9335*** (0.1082)
Max	Weapons	1.0165 (0.4522)	0.4909** (0.1230)	0.6862 (0.1677)	0.4829 (0.1888)	0.6750 (0.2616)	1.3977** (0.1684)
Max	Driving Related	0.1920* (0.1593)	0.5854* (0.1511)	0.3538*** (0.0880)	3.0488 (2.4389)	1.8424 (1.4671)	0.6043*** (0.0705)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7C – Relative Risk Ratios for Blacks vs Whites with Some Prior Arrests (Panel A)

Prior Record	Arrest Charge	Pairwise Comparisons			
		Diversions	Acquittals	No Custodial vs. Dismissals	Custodial
		RRR	RRR	RRR	RRR
Some	Murder	79426.95 (51500000)	1.1916 (0.8111)	0.3390** (0.1231)	0.4932* (0.1452)
Some	Rape	0.9081 (0.3152)	3.5039* (1.8153)	0.5967** (0.1113)	0.6213*** (0.0931)
Some	Robbery	0.7705 (0.1606)	1.8127 (0.6796)	0.5143*** (0.0544)	0.6229*** (0.0528)
Some	Assault	0.6352*** (0.0653)	1.2156 (0.2223)	0.6263*** (0.0394)	0.8375** (0.0471)
Some	Other Violent	0.6686* (0.1256)	0.6908 (0.2131)	0.5481*** (0.0599)	0.6247*** (0.0597)
Some	Burglary	0.5472*** (0.0680)	1.4962 (0.4226)	0.6015*** (0.0465)	0.7985*** (0.0530)
Some	Larceny	0.7692* (0.0791)	1.8073* (0.5425)	0.8465* (0.0571)	1.0925 (0.0694)
Some	Motor Vehicle Theft	0.8209 (0.1630)	1.1997 (0.4710)	0.9192 (0.1204)	0.9026 (0.0930)
Some	Forgery	0.7278 (0.1336)	3.1692 (2.5825)	0.9206 (0.1085)	1.0218 (0.1185)
Some	Fraud	1.1138 (0.1749)	0.6221 (0.5753)	0.8520 (0.1037)	0.7948 (0.0972)
Some	Other Property	0.5815** (0.0998)	1.4436 (0.5094)	0.7100*** (0.0650)	0.8747 (0.0768)
Some	Drug Sales	0.5875*** (0.0564)	4.1415*** (1.4477)	0.7976*** (0.0526)	1.1971** (0.0722)
Some	Other Drugs	0.4472*** (0.0310)	2.7449*** (0.8482)	0.5826*** (0.0305)	1.1236 (0.0559)
Some	Weapons	1.0903 (0.2607)	1.2244 (0.4611)	0.6651*** (0.0852)	0.9272 (0.1115)
Some	Driving Related	1.9292** (0.4925)	0.4093 (0.3256)	1.4034* (0.2034)	0.8459 (0.1091)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7D – Relative Risk Ratios for Blacks vs Whites with Some Prior Arrests (Panel B)

Prior Record	Arrest Charge	Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial	Custodial vs. No Custodial
		RRR	RRR	RRR	RRR	RRR	RRR
Some	Murder	0.0000 (0.0097)	0.0000 (0.0028)	0.0000 (0.0040)	0.2845 (0.1944)	0.4139 (0.2686)	1.4548 (0.4335)
Some	Rape	3.8585* (2.3256)	0.6571 (0.2378)	0.6842 (0.2349)	0.1703*** (0.0899)	0.1773*** (0.0915)	1.0412 (0.1865)
Some	Robbery	2.3525* (0.9837)	0.6674 (0.1426)	0.8083 (0.1644)	0.2837*** (0.1073)	0.3436** (0.1280)	1.2112* (0.1166)
Some	Assault	1.9136*** (0.3882)	0.9859 (0.1064)	1.3184** (0.1370)	0.5152*** (0.0958)	0.6890 (0.1266)	1.3372*** (0.0872)
Some	Other Violent	1.0332 (0.3594)	0.8197 (0.1585)	0.9343 (0.1740)	0.7934 (0.2479)	0.9043 (0.2782)	1.1398 (0.1213)
Some	Burglary	2.7343*** (0.8181)	1.0992 (0.1375)	1.4592*** (0.1722)	0.4020*** (0.1138)	0.5337 (0.1495)	1.3275*** (0.0896)
Some	Larceny	2.3496** (0.7283)	1.1006 (0.1123)	1.4204*** (0.1408)	0.4684* (0.1405)	0.6045 (0.1808)	1.2906*** (0.0793)
Some	Motor Vehicle Theft	1.4615 (0.6222)	1.1197 (0.2346)	1.0996 (0.2131)	0.7662 (0.3052)	0.7524 (0.2937)	0.9820 (0.1206)
Some	Forgery	4.3548 (3.5929)	1.2650 (0.2217)	1.4040* (0.2423)	0.2905 (0.2362)	0.3224 (0.2621)	1.1099 (0.1141)
Some	Fraud	0.5585 (0.5185)	0.7650 (0.1128)	0.7136* (0.1044)	1.3697 (1.2645)	1.2776 (1.1796)	0.9328 (0.1025)
Some	Other Property	2.4827* (0.9467)	1.2211 (0.2093)	1.5043* (0.2550)	0.4918* (0.1738)	0.6059 (0.2134)	1.2319* (0.1087)
Some	Drug Sales	7.0496*** (2.5072)	1.3577*** (0.1261)	2.0376*** (0.1801)	0.1926*** (0.0672)	0.2890*** (0.1005)	1.5008*** (0.0819)
Some	Other Drugs	6.1374*** (1.9167)	1.3027*** (0.0889)	2.5123*** (0.1628)	0.2123*** (0.0656)	0.4093** (0.1263)	1.9286*** (0.0938)
Some	Weapons	1.1230 (0.4777)	0.6100* (0.1446)	0.8504 (0.1972)	0.5432 (0.2040)	0.7573 (0.2825)	1.3941** (0.1624)
Some	Driving Related	0.2121 (0.1740)	0.7275 (0.1792)	0.4385*** (0.1042)	3.4292 (2.7209)	2.0669 (1.6332)	0.6027*** (0.0682)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7E – Relative Risk Ratios for Blacks vs Whites with Missing Prior Arrests (Panel A)

Prior Record	Arrest Charge	Pairwise Comparisons			
		Diversions	Acquittals	No Custodial vs. Dismissals	Custodial
		RRR	RRR	RRR	RRR
Missing	Murder	88256.64 (57300000)	1.1640 (0.8718)	0.2929*** (0.1081)	0.4150** (0.1251)
Missing	Rape	1.0090 (0.3842)	3.4228* (2.0888)	0.5156*** (0.1028)	0.5228*** (0.0864)
Missing	Robbery	0.8562 (0.2223)	1.7707 (0.8690)	0.4443*** (0.0559)	0.5241*** (0.0567)
Missing	Assault	0.7059 (0.1307)	1.1875 (0.4351)	0.5411*** (0.0510)	0.7048*** (0.0631)
Missing	Other Violent	0.7429 (0.1818)	0.6748 (0.3019)	0.4735*** (0.0618)	0.5257*** (0.0624)
Missing	Burglary	0.6080* (0.1208)	1.4615 (0.6210)	0.5197*** (0.0541)	0.6719*** (0.0643)
Missing	Larceny	0.8547 (0.1597)	1.7654 (0.7763)	0.7314*** (0.0713)	0.9194 (0.0866)
Missing	Motor Vehicle Theft	0.9121 (0.2298)	1.1719 (0.5949)	0.7941 (0.1188)	0.7596* (0.0950)
Missing	Forgery	0.8087 (0.1958)	3.0958 (2.7133)	0.7954 (0.1093)	0.8598 (0.1164)
Missing	Fraud	1.2376 (0.2734)	0.6077 (0.5950)	0.7362* (0.1037)	0.6688** (0.0941)
Missing	Other Property	0.6461 (0.1472)	1.4102 (0.6665)	0.6134*** (0.0702)	0.7360** (0.0819)
Missing	Drug Sales	0.6528* (0.1198)	4.0456** (1.9237)	0.6891*** (0.0664)	1.0073 (0.0925)
Missing	Other Drugs	0.4970*** (0.0866)	2.6813* (1.1987)	0.5034*** (0.0447)	0.9455 (0.0817)
Missing	Weapons	1.2115 (0.3460)	1.1961 (0.5836)	0.5746*** (0.0833)	0.7803 (0.1075)
Missing	Driving Related	2.1437* (0.6435)	0.3998 (0.3439)	1.2125 (0.1950)	0.7118* (0.1041)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7F – Relative Risk Ratios for Blacks vs Whites with Missing Prior Arrests (Panel B)

Prior Record	Arrest Charge	Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial	Custodial vs. No Custodial
		RRR	RRR	RRR	RRR	RRR	RRR
Missing	Murder	0.0000 (0.0086)	0.0000 (0.0022)	0.0000 (0.0031)	0.2517 (0.1891)	0.3566 (0.2569)	1.4169 (0.4314)
Missing	Rape	3.3921 (2.3660)	0.5109 (0.2015)	0.5181 (0.1952)	0.1506** (0.0932)	0.1528** (0.0930)	1.0141 (0.1944)
Missing	Robbery	2.0681 (1.1216)	0.5189* (0.1371)	0.6122 (0.1561)	0.2509** (0.1239)	0.2960* (0.1448)	1.1797 (0.1377)
Missing	Assault	1.6823 (0.6740)	0.7666 (0.1446)	0.9985 (0.1846)	0.4557* (0.1681)	0.5935 (0.2181)	1.3024** (0.1231)
Missing	Other Violent	0.9083 (0.4498)	0.6374 (0.1589)	0.7076 (0.1715)	0.7017 (0.3164)	0.7790 (0.3483)	1.1101 (0.1409)
Missing	Burglary	2.4037 (1.0993)	0.8546 (0.1707)	1.1050 (0.2144)	0.3555* (0.1514)	0.4597 (0.1948)	1.2930** (0.1238)
Missing	Larceny	2.0656 (0.9653)	0.8557 (0.1600)	1.0757 (0.1977)	0.4143* (0.1824)	0.5208 (0.2287)	1.2570* (0.1156)
Missing	Motor Vehicle Theft	1.2848 (0.7078)	0.8706 (0.2273)	0.8327 (0.2061)	0.6776 (0.3475)	0.6481 (0.3281)	0.9565 (0.1352)
Missing	Forgery	3.8284 (3.4336)	0.9836 (0.2324)	1.0633 (0.2477)	0.2569 (0.2249)	0.2777 (0.2429)	1.0810 (0.1336)
Missing	Fraud	0.4910 (0.4871)	0.5948* (0.1278)	0.5404** (0.1148)	1.2114 (1.1846)	1.1006 (1.0761)	0.9085 (0.1176)
Missing	Other Property	2.1826 (1.1166)	0.9494 (0.2167)	1.1392 (0.2572)	0.4350 (0.2060)	0.5219 (0.2466)	1.1998 (0.1331)
Missing	Drug Sales	6.1974*** (3.0962)	1.0556 (0.1925)	1.5431* (0.2754)	0.1703*** (0.0810)	0.2490** (0.1181)	1.4617*** (0.1275)
Missing	Other Drugs	5.3955*** (2.5425)	1.0129 (0.1767)	1.9026*** (0.3258)	0.1877*** (0.0840)	0.3526* (0.1576)	1.8784*** (0.1596)
Missing	Weapons	0.9873 (0.5379)	0.4743** (0.1349)	0.6440 (0.1797)	0.4804 (0.2343)	0.6523 (0.3167)	1.3578* (0.1821)
Missing	Driving Related	0.1865 (0.1668)	0.5656 (0.1657)	0.3321*** (0.0945)	3.0330 (2.6037)	1.7805 (1.5228)	0.5871*** (0.0773)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7G – Relative Risk Ratios for Hispanics vs Whites with Max Prior Arrests (Panel A)

Prior Record	Arrest Charge	Pairwise Comparisons			
		Diversions	Acquittals vs. Dismissals	No Custodial	Custodial
		RRR	RRR	RRR	RRR
Max	Murder	136981.60 (88900000)	1.5497 (1.1813)	0.5624 (0.2241)	0.2605*** (0.0868)
Max	Rape	1.2657 (0.4960)	3.5893* (2.3290)	1.1575 (0.2625)	0.7845 (0.1458)
Max	Robbery	0.6799 (0.1882)	1.7129 (0.8138)	0.8381 (0.1101)	0.6764*** (0.0706)
Max	Assault	0.8425 (0.1320)	1.2126 (0.3441)	0.8426 (0.0744)	1.1439 (0.0822)
Max	Other Violent	0.5081** (0.1199)	0.7070 (0.3105)	0.7439* (0.0991)	0.9533 (0.1048)
Max	Burglary	0.4554 (0.0822)	1.0105 (0.4034)	0.7039*** (0.0702)	0.7909** (0.0644)
Max	Larceny	0.8985 (0.1474)	0.6657 (0.3925)	0.9551 (0.0941)	1.0365 (0.0909)
Max	Motor Vehicle Theft	0.5589* (0.1460)	0.9983 (0.5126)	0.8991 (0.1437)	1.2795* (0.1476)
Max	Forgery	0.4727** (0.1318)	4.9456 (4.6699)	0.9190 (0.1416)	0.8820 (0.1308)
Max	Fraud	0.8160 (0.1917)	1.2489 (1.4772)	1.5991** (0.2563)	0.9311 (0.1478)
Max	Other Property	0.3364*** (0.0882)	0.6756 (0.4123)	0.7669 (0.0952)	0.9080 (0.1017)
Max	Drug Sales	0.4177*** (0.0672)	2.3906* (1.0447)	0.7782** (0.0680)	1.1692* (0.0877)
Max	Other Drugs	0.9883 (0.1232)	1.6624 (0.7207)	1.0511 (0.0780)	1.0110 (0.0665)
Max	Weapons	0.5465 (0.1850)	0.8866 (0.4712)	0.7313 (0.1206)	1.1024 (0.1587)
Max	Driving Related	1.0937 (0.3198)	0.8471 (0.5991)	1.7602*** (0.2707)	1.2285 (0.1653)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7H – Relative Risk Ratios for Hispanics vs Whites with Max Prior Arrests (Panel B)

Prior Record	Arrest Charge	Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial vs. No Custodial	
		RRR	RRR	RRR	RRR	RRR	
Max	Murder	0.0000 (0.0073)	0.0000 (0.0027)	0.0000 (0.0012)	0.3629 (0.2779)	0.1681* (0.1229)	0.4632* (0.1568)
Max	Rape	2.8359 (2.0709)	0.9145 (0.3728)	0.6199 (0.2365)	0.3225 (0.2123)	0.2186* (0.1408)	0.6778 (0.1451)
Max	Robbery	2.5193 (1.3523)	1.2327 (0.3488)	0.9948 (0.2682)	0.4893 (0.2344)	0.3949* (0.1863)	0.8070 (0.0963)
Max	Assault	1.4392 (0.4543)	1.0001 (0.1631)	1.3577* (0.2087)	0.6949 (0.2002)	0.9433 (0.2670)	1.3576*** (0.1163)
Max	Other Violent	1.3915 (0.6732)	1.4641 (0.3547)	1.8763** (0.4286)	1.0521 (0.4665)	1.3483 (0.5881)	1.2815* (0.1579)
Max	Burglary	2.2187 (0.9494)	1.5456* (0.2830)	1.7365*** (0.2997)	0.6966 (0.2792)	0.7827 (0.3103)	1.1235 (0.0980)
Max	Larceny	0.7409 (0.4475)	1.0630 (0.1749)	1.1536 (0.1803)	1.4348 (0.8465)	1.5571 (0.9156)	1.0852 (0.0953)
Max	Motor Vehicle Theft	1.7860 (1.0018)	1.6085 (0.4437)	2.2892*** (0.5768)	0.9006 (0.4698)	1.2817 (0.6535)	0.3529* (0.1462)
Max	Forgery	10.4618* (10.1504)	1.9441* (0.5341)	1.8657* (0.4963)	0.1858 (0.1753)	0.1783 (0.1679)	0.9597 (0.1342)
Max	Fraud	1.5306 (1.8250)	1.9598** (0.4346)	1.1411 (0.2470)	1.2804 (1.5114)	0.7456 (0.8796)	0.5823*** (0.0804)
Max	Other Property	2.0082 (1.3114)	2.2797** (0.6033)	2.6993*** (0.6929)	1.1352 (0.6946)	1.3441 (0.8187)	1.1841 (0.1388)
Max	Drug Sales	5.7238*** (2.6175)	1.8632*** (0.2987)	2.7995*** (0.4273)	0.3255** (0.1423)	0.4891 (0.2126)	1.5025*** (0.1107)
Max	Other Drugs	1.6822 (0.7487)	1.0636 (0.1327)	1.0230 (0.1200)	0.6323 (0.2743)	0.6082 (0.2629)	0.9619 (0.0633)
Max	Weapons	1.6224 (0.9875)	1.3382 (0.4558)	2.0172* (0.6611)	0.8249 (0.4399)	1.2433 (0.6547)	1.5073** (0.2241)
Max	Driving Related	0.7745 (0.5779)	1.6095 (0.4565)	1.1232 (0.3051)	2.0780 (1.4628)	1.4502 (1.0146)	0.6979** (0.0802)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7I – Relative Risk Ratios for Hispanics vs Whites with Some Prior Arrests (Panel A)

Prior Record	Arrest Charge	Pairwise Comparisons			
		Diversions	Acquittals vs. Dismissals	No Custodial	Custodial
		RRR	RRR	RRR	RRR
Some	Murder	144329.90 (93600000)	1.7689 (1.3100)	0.4312* (0.1708)	0.2414*** (0.0801)
Some	Rape	1.3336 (0.5023)	4.0968* (2.5459)	0.8874 (0.1968)	0.7271 (0.1325)
Some	Robbery	0.7164 (0.1837)	1.9551 (0.8809)	0.6425*** (0.0800)	0.6268*** (0.0628)
Some	Assault	0.8877 (0.1028)	1.3840 (0.3232)	0.6460*** (0.0497)	1.0601 (0.0685)
Some	Other Violent	0.5354** (0.1127)	0.8070 (0.3251)	0.5703*** (0.0714)	0.8835 (0.0922)
Some	Burglary	0.4799*** (0.0711)	1.1534 (0.4265)	0.5397*** (0.0493)	0.7330*** (0.0560)
Some	Larceny	0.9467 (0.1219)	0.7598 (0.4332)	0.7322*** (0.0657)	0.9606 (0.0799)
Some	Motor Vehicle Theft	0.5889 (0.1410)	1.1394 (0.5577)	0.6892* (0.1065)	1.1858 (0.1326)
Some	Forgery	0.4981** (0.1290)	5.6448 (5.2515)	0.7046* (0.1043)	0.8174 (0.1185)
Some	Fraud	0.8597 (0.1809)	1.4254 (1.6678)	1.2259 (0.1888)	0.8629 (0.1341)
Some	Other Property	0.3544*** (0.0854)	0.7711 (0.4544)	0.5879*** (0.0689)	0.8415 (0.0911)
Some	Drug Sales	0.4401*** (0.0537)	2.7286* (1.1041)	0.5966*** (0.0455)	1.0836 (0.0738)
Some	Other Drugs	1.0413 (0.0774)	1.8975 (0.7709)	0.8058*** (0.0505)	0.9370 (0.0560)
Some	Weapons	0.5758 (0.1854)	1.0120 (0.5108)	0.5607*** (0.0894)	1.0216 (0.1438)
Some	Driving Related	1.1524 (0.3139)	0.9669 (0.6640)	1.3495* (0.1990)	1.1385 (0.1488)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7J – Relative Risk Ratios for Hispanics vs Whites with Some Prior Arrests (Panel B)

Prior Record	Arrest Charge	Pairwise Comparisons					
		Acquittals	No Custodial vs. Diversions	Custodial	No Custodial vs. Acquittals	Custodial vs. No Custodial	
		RRR	RRR	RRR	RRR	RRR	
Some	Murder	0.0000 (0.0080)	0.0000 (0.0019)	0.0000 (0.0011)	0.2438 (0.1813)	0.1365** (0.0967)	0.5599 (0.1883)
Some	Rape	3.0721 (2.1467)	0.6654 (0.2612)	0.5452 (0.1999)	0.2166* (0.1366)	0.1775** (0.1095)	0.8194 (0.1720)
Some	Robbery	2.7291* (1.3797)	0.8969 (0.2353)	0.8750 (0.2183)	0.3286* (0.1493)	0.3206* (0.1435)	0.9756 (0.1108)
Some	Assault	1.5591 (0.3935)	0.7277** (0.0896)	1.1942 (0.1365)	0.4667** (0.1109)	0.7660 (0.1789)	1.6411*** (0.1262)
Some	Other Violent	1.5074 (0.6632)	1.0653 (0.2309)	1.650345* (0.3357)	0.7067 (0.2874)	1.0948 (0.4380)	1.5492*** (0.1805)
Some	Burglary	2.4035* (0.9337)	1.1246 (0.1689)	1.5274** (0.2137)	0.4679* (0.1735)	0.6355 (0.2334)	1.3582*** (0.1085)
Some	Larceny	0.8026 (0.4632)	0.7734* (0.0989)	1.0147 (0.1227)	0.9637 (0.5494)	1.2643 (0.7192)	1.3119*** (0.1062)
Some	Motor Vehicle Theft	1.9348 (1.0250)	1.1704 (0.2982)	2.0135** (0.4638)	0.6049 (0.3009)	1.0407 (0.5057)	1.7205*** (0.2438)
Some	Forgery	11.3330* (10.7865)	1.4145 (0.3591)	1.6410* (0.4040)	0.1248* (0.1160)	0.1448* (0.1344)	1.1601 (0.1564)
Some	Fraud	1.6580 (1.9493)	1.4259 (0.2774)	1.0037 (0.1917)	0.8600 (1.0039)	0.6054 (0.7066)	0.7039** (0.0934)
Some	Other Property	2.1755 (1.3619)	1.6587* (0.4031)	2.3743*** (0.5606)	0.7625 (0.4503)	1.0914 (0.6423)	1.4314*** (0.1601)
Some	Drug Sales	6.2005*** (2.5726)	1.3557* (0.1624)	2.4624*** (0.2780)	0.2186*** (0.0884)	0.3971* (0.1598)	1.8163*** (0.1152)
Some	Other Drugs	1.8223 (0.7430)	0.7738*** (0.0552)	0.8998 (0.0591)	0.4247* (0.1724)	0.4938 (0.2002)	1.1628** (0.0656)
Some	Weapons	1.7575 (1.0142)	0.9737 (0.3152)	1.7743 (0.5525)	0.5540 (0.2804)	1.0095 (0.5048)	1.8222*** (0.2626)
Some	Driving Related	0.8390 (0.6039)	1.1711 (0.3070)	0.9880 (0.2477)	1.3957 (0.9533)	1.1775 (0.7998)	0.8437 (0.0914)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7K – Relative Risk Ratios for Hispanics vs Whites with Missing Prior Arrests (Panel A)

Prior Record	Arrest Charge	Pairwise Comparisons			
		Diversions	Acquittals vs. Dismissals	No Custodial	Custodial
		RRR	RRR	RRR	RRR
Missing	Murder	148502.50 (96400000)	1.9544 (1.6154)	0.4322* (0.1742)	0.2082*** (0.0708)
Missing	Rape	1.3721 (0.5691)	4.5265* (3.2658)	0.8895 (0.2078)	0.6272* (0.1233)
Missing	Robbery	0.7371 (0.2269)	2.1602 (1.2453)	0.6441** (0.0930)	0.5407*** (0.0669)
Missing	Assault	0.9134 (0.1886)	1.5292 (0.6571)	0.6475*** (0.0701)	0.9144 (0.0913)
Missing	Other Violent	0.5508* (0.1501)	0.8917 (0.4893)	0.5717*** (0.0845)	0.7621* (0.0988)
Missing	Burglary	0.4937** (0.1124)	1.2743 (0.6619)	0.5409*** (0.0647)	0.6322*** (0.0681)
Missing	Larceny	0.9741 (0.2099)	0.8395 (0.5699)	0.7340** (0.0866)	0.8286 (0.0931)
Missing	Motor Vehicle Theft	0.6059 (0.1794)	1.2589 (0.7757)	0.6909* (0.1207)	1.0228 (0.1402)
Missing	Forgery	0.5125* (0.1591)	6.2369 (6.2235)	0.7062* (0.1159)	0.7050* (0.1140)
Missing	Fraud	0.8846 (0.2398)	1.5750 (1.9313)	1.2288 (0.2119)	0.7443 (0.1287)
Missing	Other Property	0.3647*** (0.1068)	0.8520 (0.5849)	0.5893*** (0.0821)	0.7259* (0.0955)
Missing	Drug Sales	0.4528*** (0.0944)	3.0147* (1.6380)	0.5980*** (0.0640)	0.9346 (0.0940)
Missing	Other Drugs	1.0714 (0.2043)	2.0965 (1.1579)	0.8077* (0.0819)	0.8081* (0.0794)
Missing	Weapons	0.5925 (0.2165)	1.1181 (0.6927)	0.5620*** (0.0990)	0.8812 (0.1402)
Missing	Driving Related	1.1857 (0.3843)	1.0683 (0.8373)	1.3527 (0.2257)	0.9820 (0.1487)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 7L – Relative Risk Ratios for Hispanics vs Whites with Missing Prior Arrests (Panel B)

Prior Record	Arrest Charge	Pairwise Comparisons					
		Acquittals	No Custodial	Custodial	No Custodial	Custodial	Custodial
		vs. Diversions			vs. Acquittals		vs. No Custodial
		RRR	RRR	RRR	RRR	RRR	RRR
Missing	Murder	0.0000 (0.0085)	0.0000 (0.0019)	0.0000 (0.0009)	0.2211 (0.1835)	0.1066** (0.0850)	0.4818* (0.1656)
Missing	Rape	3.2989 (2.6528)	0.6482 (0.2781)	0.4571 (0.1849)	0.1965* (0.1434)	0.1386** (0.0995)	0.7051 (0.1563)
Missing	Robbery	2.9306 (1.8717)	0.8738 (0.2732)	0.7335 (0.2205)	0.2982* (0.1728)	0.2503* (0.1437)	0.8395 (0.1123)
Missing	Assault	1.6742 (0.7792)	0.7089 (0.1493)	1.0011 (0.2036)	0.4234* (0.1832)	0.5980 (0.2571)	1.4121*** (0.1506)
Missing	Other Violent	1.6187 (0.9654)	1.0378 (0.2879)	1.3835 (0.3666)	0.6411 (0.3540)	0.8547 (0.4673)	1.3331* (0.1848)
Missing	Burglary	2.5809 (1.4308)	1.0956 (0.2508)	1.2805 (0.2818)	0.4245 (0.2211)	0.4961 (0.2568)	1.1687 (0.1274)
Missing	Larceny	0.8618 (0.6046)	0.7535 (0.1621)	0.8506 (0.1774)	0.8743 (0.5938)	0.9870 (0.6689)	1.1289 (0.1238)
Missing	Motor Vehicle Theft	2.0776 (1.3845)	1.1402 (0.3520)	1.6880 (0.4840)	0.5488 (0.3420)	0.8125 (0.4984)	1.4804* (0.2395)
Missing	Forgery	12.1698* (12.5266)	1.3781 (0.4217)	1.3757 (0.4106)	0.1132* (0.1129)	0.1130* (0.1126)	0.9983 (0.1514)
Missing	Fraud	1.7804 (2.2091)	1.3892 (0.3599)	0.8414 (0.2138)	0.7802 (0.9550)	0.4726 (0.5782)	0.6057*** (0.0921)
Missing	Other Property	2.3361 (1.7123)	1.6160 (0.4763)	1.9904* (0.5723)	0.6917 (0.4759)	0.8520 (0.5844)	1.2317 (0.1648)
Missing	Drug Sales	6.6583*** (3.8009)	1.3207 (0.2736)	2.0642*** (0.4149)	0.1984** (0.1078)	0.3100* (0.1680)	1.5629*** (0.1503)
Missing	Other Drugs	1.9568 (1.1244)	0.7539 (0.1430)	0.7543 (0.1391)	0.3853 (0.2129)	0.3855 (0.2126)	1.0006 (0.0954)
Missing	Weapons	1.8873 (1.3153)	0.9486 (0.3480)	1.4874 (0.5275)	0.5026 (0.3122)	0.7881 (0.4852)	1.5680** (0.2530)
Missing	Driving Related	0.9010 (0.7457)	1.1409 (0.3601)	0.8282 (0.2522)	1.2662 (0.9888)	0.9192 (0.7144)	0.7260* (0.0956)

Notes: Results arise from linear combinations of the main coefficient on race added to the respective interaction terms between race and the listed prior record and current offense indicators. These values are, thus, interpreted in terms of relative ratios for the respective pairwise comparison for blacks and whites between the listed case characteristics and the reference of no prior arrests and public order crimes.

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

Table 8A – Overview of Sensitivity Analyses for Multinomial Models (Panel A)

Sensitivity Model	Rationale	Able to run?	Table Listing	Findings
Men	Determine if the results are specific to men	Yes	S1A-SL	Substantively similar to results from primary model. Main effect of race for custodial vs non-custodial increased in magnitude and became significant.
Women	Determine if the results are specific to women	No	--	--
Younger	Determine if the results are specific to younger defendants	Yes	S2A-S2L	Results remain substantively similar, but significance levels have dropped for interaction terms with race.
Older	Determine if the results are specific to older defendants	Yes	S3A-S3L	Results remain substantively similar, but significance levels have dropped for interaction terms between race and prior arrests.
Younger Men	Appraise whether the results are specific to younger men	Yes	S4A-S4L	Coefficients generally remain in the same direction, but very few interaction terms with race are now significant at any of the employed alphas. Race is not as impactful for the younger male subsample.
Older Men	Appraise whether the results are specific to older men	Yes	S5A-S5L	Coefficients generally remain in the same direction, but fewer interaction terms with race are now significant. More are significant than for younger men, but again, race is not as impactful as it is for the full sample.
Listwise Deletion	Compare different methods of handling missing prior arrests	Yes	S6A-S6L; S7A-S7L; S8A-S8L; S9A-S9L; S10A-S10L; S11A-S11L	Results are remarkably consistent with listwise deletion as with treating missing as a separate category.

Table 8B – Overview of Sensitivity Analyses for Multinomial Models (Panel B)

Sensitivity Model	Rationale	Able to run?	Table Listing	Findings
Prior Convictions - Separate Category	Compare results with a different measure of prior record	Yes	S12A-S12L; S13A-S13L; S14A-S14L; S15A-S15L; S16A-S16L; S17A-S17L	Results remain substantively similar when employing prior convictions as the indicator of prior record as compared to prior arrests.
Prior Convictions - Listwise Deletion	Compare different methods of handling missing prior convictions	Yes	S18A-S18L; S19A-S19L; S20A-S20L; S21A-S21L; S22A-S22L; S23A-S23L	Results are highly consistent with those treating missing prior convictions as a separate category. Each set using prior convictions is substantively similar to the primary results using prior arrests.
High Proportion Hispanic States	Assess whether the primary model is producing accurate results regarding Hispanic disparities	Yes	S24A-S24L	Results are substantively similar to the main results, but coefficients on Hispanic vs white differences are augmented when considering pairwise comparisons involving diversions or convictions with a custodial sentence.
7 Outcome Category	Assess influence of guilty pleas	No	--	--
12 Outcome Category	Assess influence of pretrial detention and guilty pleas	No	--	--
Multinomial Probit	A supplemental model that does not make the IIA assumption	No	--	--
Nested Logit	A supplemental model that does not make the IIA assumption	No	--	--

Table 9 – Cell Sizes and Underpowered Cells for Total Differences Analyses

Current Offense	No prior record			Some Prior record			Max Prior Record			Missing Prior Record		
	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
Murder	41	90	60	49	167	65	23	88	29	14	36	10
Rape	218	198	137	185	280	127	59	135	30	15	70	45
Robbery	300	1,051	479	523	1,707	674	356	1,339	362	92	437	196
Assault	1,233	1,670	1,023	1,555	2,610	1,458	835	1,759	667	209	490	307
Other Violent	588	368	437	639	618	470	249	386	188	76	80	68
Burglary	823	733	535	1,534	1,646	1,114	976	1,536	710	211	260	181
Larceny	1,209	1,129	554	1,509	1,729	703	955	1,674	466	193	284	147
Motor Vehicle Theft	224	307	250	468	623	583	401	443	299	47	67	41
Forgery	335	386	172	502	589	197	300	276	87	61	86	100
Fraud	471	464	229	483	459	210	189	218	90	65	60	41
Other Property	578	513	266	709	816	385	404	584	239	125	173	80
Drug Sales	1,109	1,692	1,394	1,745	4,105	2,185	870	3,058	1,112	221	767	626
Other Drugs	1,697	1,364	1,301	3,322	4,211	2,376	1,806	3,142	1,323	292	604	280
Weapons	187	461	204	297	975	377	176	524	216	61	181	68
Driving Related	261	103	189	824	317	529	414	343	278	116	53	60
Public Order	329	255	242	587	662	351	381	542	203	102	128	94

Notes: Numbers in each cell represent the total number of cases appearing in the analytic sample from the SCPS dataset. Highlighted cells reflect groups that are underpowered for the following statistical tests.

Table 10 – Total Probabilities of Receiving a Custodial Sentence by Race across Prior Arrests and Arrest Charges

Current Offense	No prior record			Some Prior record			Max Prior Record			Missing Prior Record		
	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic	White	Black	Hispanic
Murder	0.6585	0.5444	0.4000	0.5918	0.6168	0.5077	0.7826	0.5227	0.5862	0.5000	0.6944	0.8000
Rape	0.4771	0.3182	0.4234	0.5135	0.4679	0.5669	0.5424	0.4444	0.5333	0.2000	0.3571	0.3333
Robbery	0.4267	0.3996	0.4739	0.5966	0.5091	0.5772	0.6320	0.5265	0.6906	0.5543	0.3455	0.4490
Assault	0.2076	0.1832	0.3451	0.3576	0.3483	0.4945	0.4743	0.3906	0.5397	0.3493	0.2531	0.3322
Other Violent	0.3333	0.3016	0.4622	0.4742	0.3851	0.5894	0.4980	0.4715	0.6649	0.5263	0.3875	0.4412
Burglary	0.3390	0.3602	0.4486	0.5391	0.5340	0.6194	0.6732	0.6380	0.6915	0.4692	0.4808	0.5580
Larceny	0.2035	0.2161	0.2744	0.3923	0.4187	0.4765	0.6052	0.5968	0.7253	0.3990	0.3169	0.3605
Motor Vehicle Theft	0.3616	0.2899	0.4920	0.5278	0.5136	0.6861	0.6459	0.5124	0.7258	0.5319	0.2687	0.7073
Forgery	0.1940	0.2228	0.2965	0.4303	0.4160	0.4569	0.5600	0.5942	0.6322	0.3607	0.2907	0.2900
Fraud	0.2038	0.1853	0.2795	0.4141	0.3747	0.4190	0.5661	0.5596	0.6333	0.3692	0.2667	0.2683
Other Property	0.2197	0.2320	0.3346	0.3893	0.3701	0.4831	0.5990	0.5120	0.6318	0.3200	0.2775	0.3125
Drug Sales	0.3562	0.3528	0.5452	0.5352	0.5213	0.6421	0.6437	0.6207	0.6583	0.4344	0.3950	0.4553
Other Drugs	0.1738	0.2155	0.2060	0.3374	0.4009	0.3927	0.5061	0.5223	0.5200	0.3082	0.2599	0.3964
Weapons	0.2620	0.2213	0.4216	0.4512	0.4503	0.6340	0.6364	0.5153	0.7130	0.5738	0.3591	0.3382
Driving Related	0.4100	0.2718	0.5132	0.6359	0.5300	0.6616	0.7077	0.6122	0.7626	0.5603	0.5283	0.5667
Public Order	0.1945	0.2353	0.3099	0.4174	0.4335	0.5014	0.5407	0.5461	0.5616	0.2549	0.3516	0.2660

Table 11 – Testing for Racial Disparities in the Total Probability for Receiving a Custodial Sentence across Prior Arrests and Arrest Charges

Current Offense	No prior record			Some Prior record			Max Prior Record			Missing Prior Record		
	Black vs White	Black vs Hispanic	Hispanic vs White	Black vs White	Black vs Hispanic	Hispanic vs White	Black vs White	Black vs Hispanic	Hispanic vs White	Black vs White	Black vs Hispanic	Hispanic vs White
Murder	-0.1141	0.1444	-0.2585	0.0249	0.1091	-0.0841	-0.2599	-0.0635	-0.1964	0.1944	-0.1056	0.3000
Rape	-0.1589	-0.1052	-0.0537	-0.0457	-0.0991	0.0534	-0.0979	-0.0889	-0.0090	0.1571	0.0238	0.1333
Robbery	-0.0270	-0.0743	0.0472	-0.0875	-0.0681	-0.0194	-0.1055	-0.1641*	0.0586	-0.2088*	-0.1034	-0.1054
Assault	-0.0244	-0.1618*	0.1374*	-0.0093	-0.1462*	0.1370*	-0.0837*	-0.1492*	0.0655	-0.0962	-0.0792	-0.0170
Other Violent	-0.0317	-0.1606*	0.1289*	-0.0891	-0.2042*	0.1152*	-0.0265	-0.1934*	0.1669	-0.1388	-0.0537	-0.0851
Burglary	0.0212	-0.0884	0.1096*	-0.0051	-0.0854*	0.0803*	-0.0351	-0.0535	0.0184	0.0116	-0.0772	0.0888
Larceny	0.0126	-0.0582	0.0709	0.0264	-0.0578	0.0842*	-0.0085	-0.1285*	0.1201*	-0.0821	-0.0436	-0.0384
Motor Vehicle Theft	-0.0717	-0.2021*	0.1304	-0.0141	-0.1725*	0.1583*	-0.1335*	-0.2133*	0.0799	-0.2633	-0.4387*	0.1754
Forgery	0.0288	-0.0737	0.1025	-0.0143	-0.0409	0.0266	0.0342	-0.0380	0.0722	-0.0700	0.0007	-0.0707
Fraud	-0.0185	-0.0941	0.0757	-0.0394	-0.0443	0.0050	-0.0065	-0.0737	0.0672	-0.1026	-0.0016	-0.1009
Other Property	0.0122	-0.1026	0.1149	-0.0192	-0.1130*	0.0938	-0.0870	-0.1198	0.0328	-0.0425	-0.0350	-0.0075
Drug Sales	-0.0033	-0.1924*	0.1890*	-0.0139	-0.1208*	0.1069*	-0.0230	-0.0376	0.0146	-0.0393	-0.0602	0.0209
Other Drugs	0.0417	0.0095	0.0322	0.0634*	0.0082	0.0552*	0.0162	0.0022	0.0139	-0.0483	-0.1365*	0.0882
Weapons	-0.0408	-0.2003*	0.1595	-0.0009	-0.1837*	0.1828*	-0.1211	-0.1977*	0.0766	-0.2147	0.0209	-0.2355
Driving Related	-0.1381	-0.2414*	0.1033	-0.1060	-0.1317*	0.0257	-0.0955	-0.1503*	0.0549	-0.0320	-0.0384	0.0063
Public Order	0.0408	-0.0746	0.1154	0.0162	-0.0679	0.0840	0.0054	-0.0155	0.0209	0.0967	0.0856	0.0111

Notes: A * denotes a racial comparison that was statistically significant at the Bonferroni-corrected alpha of 0.000267.

Table 12 – Testing for Racial Disparities in the Total Probability for Receiving a Custodial Sentence across Prior Arrests and Arrest Charges (Sampling on Conviction)

Current Offense	No prior record			Some Prior record			Max Prior Record			Missing Prior Record		
	Black vs	Black vs	Hispanic vs	Black vs	Black vs	Hispanic vs	Black vs	Black vs	Hispanic vs	Black vs	Black vs	Hispanic vs
	White	Hispanic	White	White	Hispanic	White	White	Hispanic	White	White	Hispanic	White
Murder	-0.0517	0.0567	-0.1084	0.1521	0.1623	-0.0103	-0.0640	0.0204	-0.0844	0.2565	-0.1071	0.3636
Rape	-0.1407	-0.1462	0.0055	0.0691	0.0109	0.0582	0.0000	0.0381	-0.0381	0.3067	0.1797	0.1270
Robbery	0.0152	-0.0432	0.0585	0.0180	-0.0302	0.0482	0.0093	0.0096	-0.0003	-0.0970	-0.0816	-0.0154
Assault	0.0183	-0.1827*	0.2010*	0.0241	-0.1346*	0.1587*	0.0078	-0.0758	0.0835	-0.0234	-0.0774	0.0540
Other Violent	0.0031	-0.1516	0.1547*	-0.0452	-0.1912*	0.1460*	0.0564	-0.0804	0.1368	0.0149	0.0662	-0.0514
Burglary	0.0626	-0.1253*	0.1878*	0.0346	-0.0653	0.0999*	-0.0052	-0.0193	0.0141	0.0350	-0.0308	0.0658
Larceny	0.0285	-0.1000	0.1286*	0.0449	-0.0687	0.1136*	-0.0063	-0.0713	0.0650	-0.0208	-0.0156	-0.0052
Motor Vehicle Theft	-0.0751	-0.2564*	0.1813	-0.0039	-0.0984*	0.0945*	-0.0642	-0.1385*	0.0744	-0.2258	-0.3256	0.0998
Forgery	0.0198	-0.1014	0.1212	-0.0232	-0.0979	0.0746	0.0453	-0.0194	0.0647	-0.0487	0.0301	-0.0788
Fraud	0.0118	-0.0515	0.0633	-0.0373	-0.0503	0.0130	-0.0239	-0.0459	0.0220	-0.1231	0.0309	-0.1540
Other Property	0.0088	-0.1592	0.1680	0.0103	-0.1332	0.1435*	-0.0359	-0.0404	0.0045	0.0077	-0.0637	0.0714
Drug Sales	-0.0040	-0.1854*	0.1814*	-0.0130	-0.1208*	0.1078*	0.0067	0.0108	-0.0040	-0.0433	-0.0735	0.0302
Other Drugs	0.0203	-0.0285	0.0488	0.0912*	-0.0140	0.1052*	0.0784*	0.0637*	0.0147	0.0524	-0.1361	0.1885
Weapons	-0.0123	-0.2430*	0.2307*	-0.0008	-0.1903*	0.1895*	-0.0312	-0.1098	0.0786	-0.1144	0.0380	-0.1524
Driving Related	-0.1605	-0.2604	0.0999	-0.0855	-0.0922	0.0068	-0.1165*	-0.1002	-0.0163	-0.0543	-0.0339	-0.0204
Public Order	0.0340	-0.1208	0.1548	0.0121	-0.0965	0.1086	-0.0136	-0.0535	0.0398	0.0994	0.1245	-0.0251

Notes: A * denotes a racial comparison that was statistically significant at the Bonferroni-corrected alpha of 0.000267.

Table 13A – Testing Equality of Disparities between Offense Types for No Prior Arrests

Offense 1	No Prior Arrests															
	Offense 2															
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Murder (1)	--															
Rape (2)		--														
Robbery (3)	h/w		--													
Assault (4)	b/h; h/w	h/w		--												
Other Violent (5)	b/h; h/w	h/w			--											
Burglary (6)	h/w	b/w				--										
Larceny (7)	h/w	b/w		b/h			--									
Motor Vehicle Theft (8)	b/h; h/w						b/h	--								
Forgery (9)	h/w	b/w							--							
Fraud (10)	h/w									--						
Other Property (11)	h/w	b/w									--					
Drug Sales (12)	b/h; h/w	b/w; h/w	b/h; h/w			b/h	b/h; h/w					--				
Other Drugs (13)	h/w	b/w		b/w; b/h; h/w	b/h	b/h		b/h			b/h	b/h; h/w	--			
Weapons (14)	b/h; h/w	h/w					b/h						b/h	--		
Driving Related (15)	b/h; h/w						b/h						b/w; b/h		--	
Public Order (16)	h/w	b/w														--

Table 13B – Testing Equality of Disparities between Offense Types for Some Prior Arrests

Offense 1	Some Prior Arrests															
	Offense 2															
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Murder (1)	--															
Rape (2)		--														
Robbery (3)			--													
Assault (4)	b/h		h/w	--												
Other Violent (5)	b/h		b/h; h/w		--											
Burglary (6)					b/h	--										
Larceny (7)			b/w	b/h	b/w; b/h		--									
Motor Vehicle Theft (8)	b/h		h/w				b/h	--								
Forgery (9)					b/h				--							
Fraud (10)				h/w	b/h			h/w		--						
Other Property (11)											--					
Drug Sales (12)	b/h		h/w									--				
Other Drugs (13)			b/w; b/h	b/w; b/h; h/w	b/w; b/h	b/w; b/h		b/h; h/w		b/w	b/w; b/h	b/w; b/h	--			
Weapons (14)	b/h		b/h; h/w				b/h			h/w			b/h; h/w	--		
Driving Related (15)	b/h			h/w			b/w	h/w					b/w; b/h	h/w	--	
Public Order (16)					b/h											--

Table 13C – Testing Equality of Disparities between Offense Types for Max Prior Arrests

Offense 1	Max Prior Arrests															
	Offense 2															
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Murder (1)	--															
Rape (2)		--														
Robbery (3)			--													
Assault (4)				--												
Other Violent (5)					--											
Burglary (6)			b/h	b/h		--										
Larceny (7)						h/w	--									
Motor Vehicle Theft (8)						b/h	b/w	--								
Forgery (9)								b/w	--							
Fraud (10)										--						
Other Property (11)											--					
Drug Sales (12)			b/h	b/h	b/h; h/w		b/h; h/w	b/h				--				
Other Drugs (13)			b/w; b/h	b/w; b/h	b/h; h/w		b/h; h/w	b/w; b/h			b/w; b/h		--			
Weapons (14)						b/h						b/h	b/w; b/h	--		
Driving Related (15)													b/w; b/h		--	
Public Order (16)			b/h		b/h			b/w; b/h						b/h		--

Table 13D – Testing Equality of Disparities between Offense Types for Missing Prior Arrests

	Missing Prior Arrests															
	Offense 2															
Offense 1	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Murder (1)	--															
Rape (2)		--														
Robbery (3)			--													
Assault (4)				--												
Other Violent (5)					--											
Burglary (6)			b/w			--										
Larceny (7)							--									
Motor Vehicle Theft (8)		b/h	b/h	b/h	b/h	b/h	b/h	--								
Forgery (9)								b/h	--							
Fraud (10)								b/h		--						
Other Property (11)								b/h			--					
Drug Sales (12)								b/h				--				
Other Drugs (13)								b/h					--			
Weapons (14)						h/w		b/h; h/w					h/w	--		
Driving Related (15)								b/h							--	
Public Order (16)			b/w					b/w; b/h					b/h	b/w		--

Figure 1 – Case Flow for Analytic Sample with Conditional Probabilities

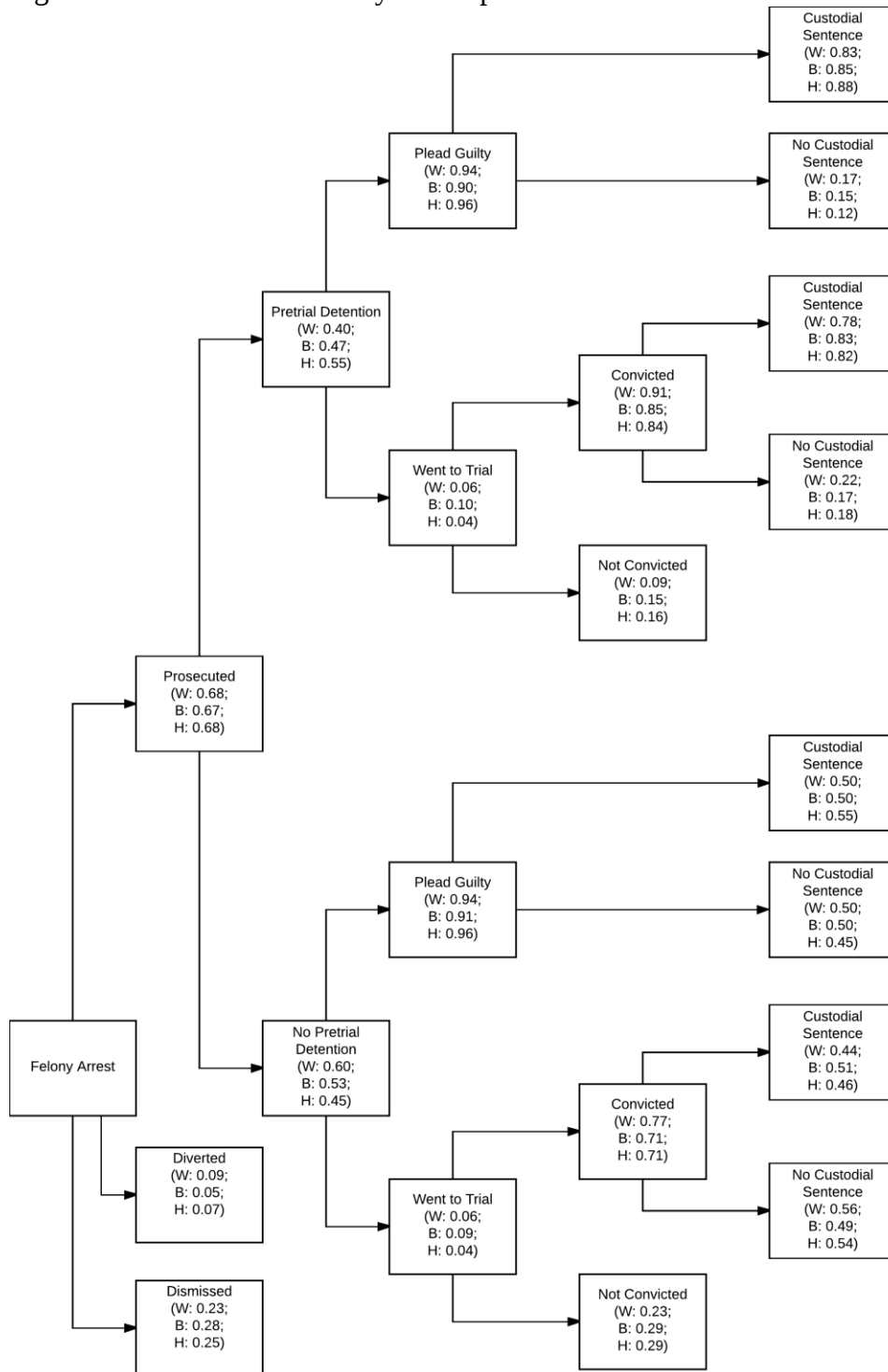
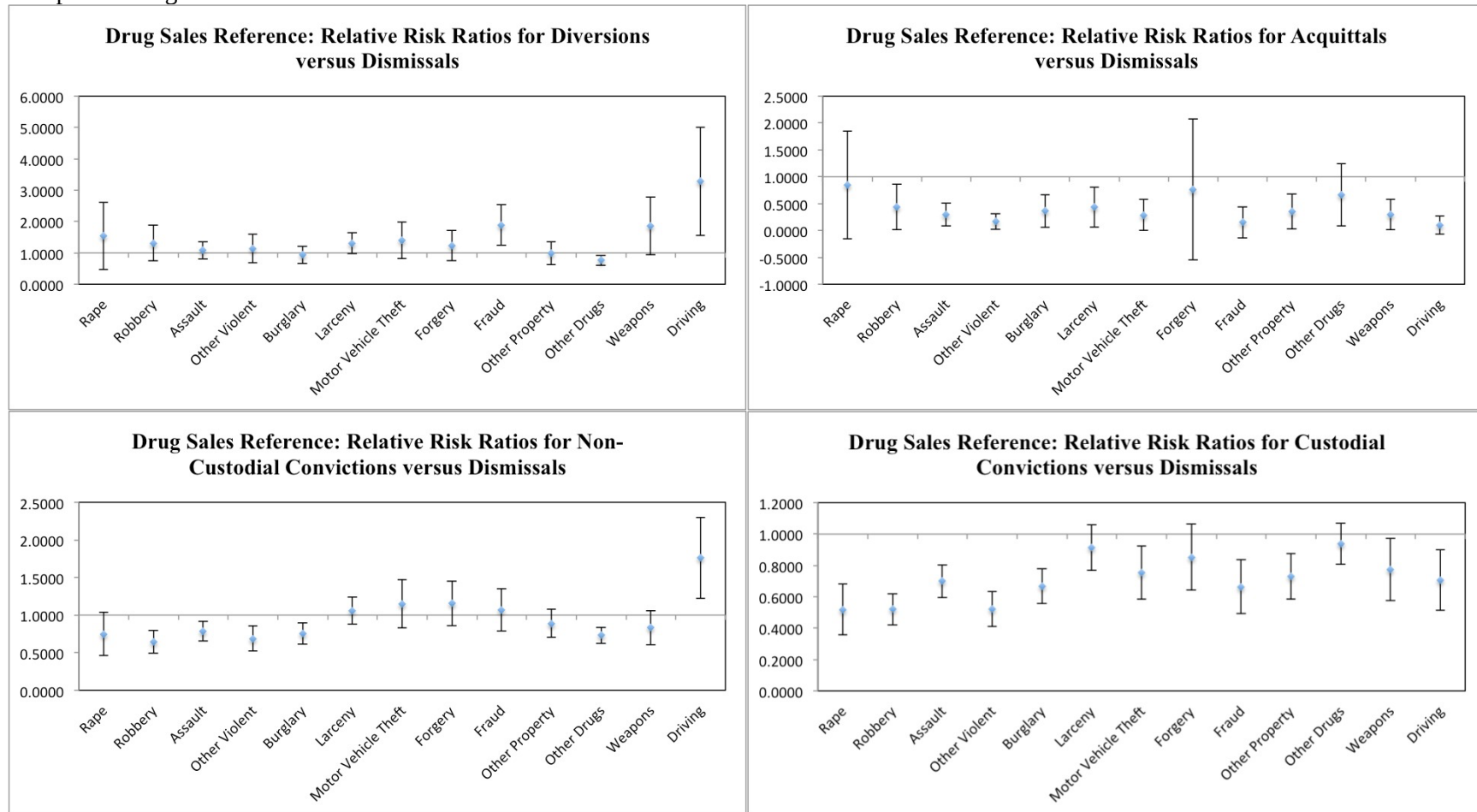
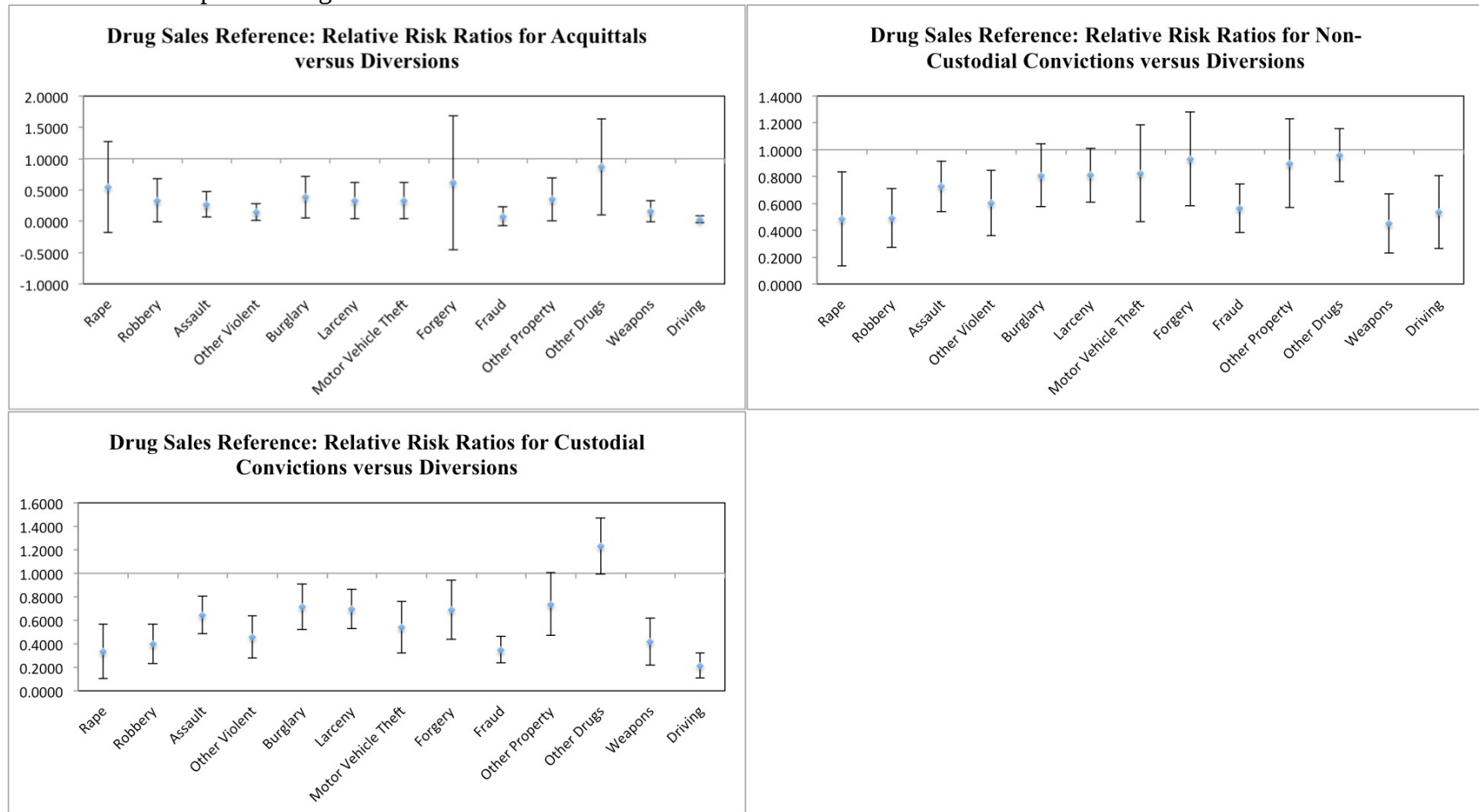


Figure 2A – Relative Risk Ratios and 95% Confidence Intervals for Black vs White with Drug Sales as the Reference Offense Type for Pairwise Comparisons Against Dismissals



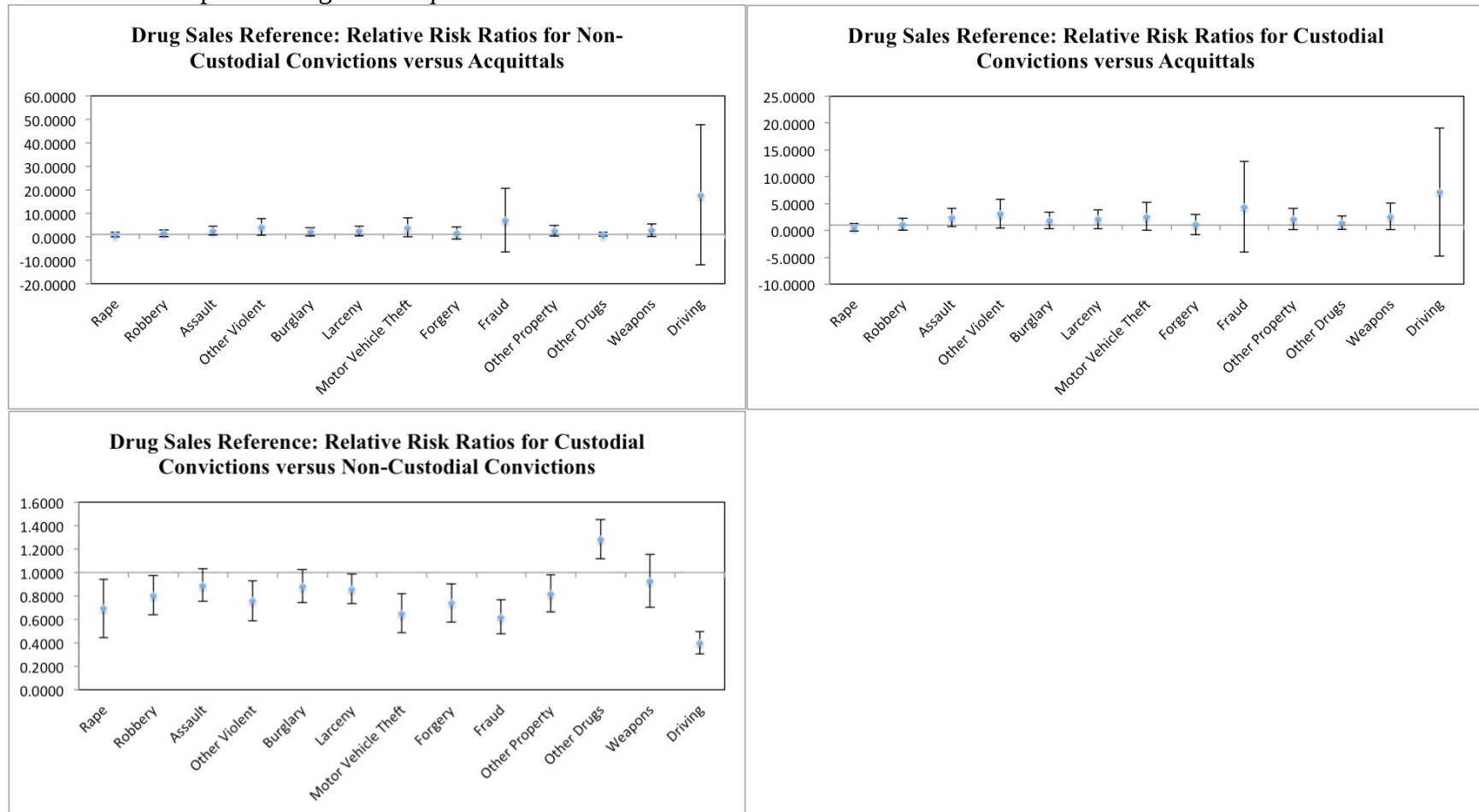
Notes: Figures display relative risk ratios and associated confidence intervals for comparisons between the listed current offense along the x-axis compared with drug sales. Relative risk ratios for Figures 2A, 2B, and 2C are calculated in a similar fashion as those presented in Table 8A-8L. However, where Table 8 retained public order crimes as the reference offense, this figure uses drug sales as the reference. A confidence interval that does not cross the axis line at 1.000 is a statistically significant relative risk ratio. Figures 2A, 2B, and 2C only provide black vs white differences for those with some prior arrests.

Figure 2B – Relative Risk Ratios and 95% Confidence Intervals for Black vs White with Drug Sales as the Reference Offense Type for Pairwise Comparisons Against Diversions



Notes: Figures display relative risk ratios and associated confidence intervals for comparisons between the listed current offense along the x-axis compared with drug sales. Relative risk ratios for Figures 2A, 2B, and 2C are calculated in a similar fashion as those presented in Table 8A-8L. However, where Table 8 retained public order crimes as the reference offense, this figure uses drug sales as the reference. A confidence interval that does not cross the axis line at 1.000 is a statistically significant relative risk ratio. Figures 2A, 2B, and 2C only provide black vs white differences for those with some prior arrests.

Figure 2C – Relative Risk Ratios and 95% Confidence Intervals for Black vs White with Drug Sales as the Reference Offense Type for Pairwise Comparisons Against Acquittals and Non-Custodial Convictions



Notes: Figures display relative risk ratios and associated confidence intervals for comparisons between the listed current offense along the x-axis compared with drug sales. Relative risk ratios for Figures 2A, 2B, and 2C are calculated in a similar fashion as those presented in Table 8A-8L. However, where Table 8 retained public order crimes as the reference offense, this figure uses drug sales as the reference. A confidence interval that does not cross the axis line at 1.000 is a statistically significant relative risk ratio. Figures 2A, 2B, and 2C only provide black vs white differences for those with some prior arrests.

Appendix 2. List of States with Number of Cases

State	Number of Cases (All States)	Proportion of Total (All States)	Proportion of Total (Limited States)
Alabama	966	0.0079	0.0084
Arizona	7,672	0.0626	0.0668
California	28,676	0.2341	0.2496
Connecticut ²	862	0.007	--
District of Columbia ¹	210	0.0017	--
Florida	14,709	0.1201	0.1281
Georgia	1,271	0.0104	0.0111
Hawaii	297	0.0024	0.0026
Illinois	6,514	0.0532	0.0567
Indiana	3,306	0.027	0.0288
Kentucky ²	257	0.0021	--
Massachusetts	1,954	0.016	0.0170
Maryland	4,800	0.0392	0.0418
Michigan	3,256	0.0266	0.0283
Montana	2,638	0.0215	0.0230
North Carolina ¹	836	0.0068	--
New Jersey	2,088	0.017	0.0182
New York	15,833	0.1293	0.1378
Ohio	3,331	0.0272	0.0290
Pennsylvania	3,730	0.0305	0.0325
Tennessee ³	2,532	0.0207	--
Texas	10,389	0.0848	0.0904
Utah	1,404	0.0115	0.0122
Virginia ⁴	1,358	0.0111	--
Washington ⁴	1,549	0.0126	--
Wisconsin	2,034	0.0166	0.0177
Total	122,472	1.00	1.00

Notes:

¹ denotes a state that did not have any case diversions reported in the SCPS data.

² denotes a state that did not have any case acquittals reported in the SCPS data.

³ denotes a state that did not have any convictions without a custodial sentence at trial.

⁴ denotes a state that did not have any cases resulting in a conviction without a custodial sentence following trial and pretrial detention

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