A Multimethod Analysis of Sentencing Decisions in a Pennsylvania County

Brian Iannacchione
Indiana University of Pennsylvania

Follow this and additional works at: https://knowledge.library.iup.edu/etd

Recommended Citation
https://knowledge.library.iup.edu/etd/88

This Dissertation is brought to you for free and open access by Knowledge Repository @ IUP. It has been accepted for inclusion in Theses and Dissertations (All) by an authorized administrator of Knowledge Repository @ IUP. For more information, please contact sara.parme@iup.edu.
A MULTIMETHOD ANALYSIS OF SENTENCING DECISIONS IN A PENNSYLVANIA COUNTY

A Dissertation
Submitted to the School of Graduate Studies and Research
in Partial Fulfillment of the Requirements for the Degree
Doctor of Philosophy

Brian Iannacchione
Indiana University of Pennsylvania
August 2012
Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of Criminology

We hereby approve the dissertation of

Brian Iannacchione

Candidate for the degree of Doctor of Philosophy

________________________________________
Erika Frenzel, Ph.D.
Associate Professor of Criminology, Chair

________________________________________
Jennifer J. Roberts, Ph.D.
Associate Professor of Criminology

________________________________________
Kathleen Hanrahan, Ph.D.
Professor of Criminology

________________________________________
Jamie Martin, Ph.D.
Associate Professor of Criminology

ACCEPTED

________________________________________
Timothy Mack, Ph.D.
Dean
The School of Graduate Studies and Research
The current study attempts to expand on sentencing literature by conducting a multimethod analysis of race-based sentencing decisions. Replicating the work of Daly (1994), the current study quantitatively examines the role race plays in sentencing decisions in a Pennsylvania county and qualitatively assesses qualitative differences among qualitatively defined “like” crimes.

There is a myriad of sentencing literature that has examined the impact race has on the bifurcated sentencing decision (the sentence outcome and the length of sentence imposed on the offender). This research has concluded that race does influence both of these decisions, with black offenders receiving harsher sanctions. Where it can be argued that sentencing research has fallen short, however, is examining why this phenomenon occurs. Daly (1994) offered a blueprint for beginning to answer this question: supplement qualitative analyses with the quantitative analysis. Through the examination of PSI reports and sentencing transcripts, Daly (1994) offered a convincing reason for why women were punished less severely than men: they committed less serious offenses.

The current research, in addition to analyzing sentencing data, supplemented this analysis with an examination of police reports of 54 offenders matched on offense, PRS, OGS, sentencing judge, and age. The only difference between the offenders was their race (white versus black). This analysis could shed more light onto why sentencing disparities exist.
The study found that black offenders faced greater odds of receiving a prison sentence compared to probation than white offenders and that their sentence length was greater than similarly situated white offenders. In regard to the qualitative analysis, there were examples of quantitatively defined like crimes containing qualitative, contextual differences. Further, there were instances when the crimes appeared similar, but one offender was sentenced more severely. Future sentencing research should incorporate qualitative analyses into their work to continue to assess why minorities continue to face harsher sanctions.
ACKNOWLEDGEMENTS

There are quite a few people I need to thank for helping me get through these last four years. It may be just as accurate to say that I need to thank them for putting up with me these last four years. First, and most importantly, I have to thank my family for all of their love and support. My mom and dad were a constant support system to me in a myriad of ways. They helped me through a lot of professional and personal grief and, while I don’t say it enough, I want to thank them from the bottom of my heart. My brother, Ben, was always a person I could turn to to complain about things (one of my best skills). More importantly, his hard work in the gym motivated me to do the same. If it wasn’t for him I would undoubtedly be a fat slob right now. My sister, Maria, also allowed me to do my fair share of complaining and was a frequent companion to movies or fancy dinners when I needed to clear my head – I greatly enjoyed those nights. Finally, my Grandma Jerry deserves thanks for the e-mails and cards I received over the years. I always enjoyed reading them – even though you think I didn’t! Thank you again to all of you, I love you all.

Second, Dr. Erika Frenzel deserves thanks and praise for her tireless work on my dissertation. As I said at my defense, I made sure she earned every penny! If it wasn’t for her comments, guidance, and – when necessary – tough love, I am not sure I would have finished this thing. So thank you for pushing me and, more importantly, putting up with me these last couple of years. I also would like to thank the rest of my committee: Drs. Jamie Martin, Kathleen Hanrahan, and Jamie Martin. Their helpful comments for both the proposal and final dissertation were enormously helpful. I greatly appreciate all the time and effort they put into my project.
To my two main bros – Steven Brewer and Jason Spraitz – thank you for your support and, more importantly, your friendship. As you two know, I am not the best with expressing emotions, but yinz two have become my best friends. I have a lot of memories of our shenanigans over the years, and I am excited to make more in the coming years. My door is always open to you in Colorado: Steve, we have many fly fishing adventures in front of us (and perhaps some mountain biking), and Jason, many breweries to explore (and, God willing, I will succeed in getting a fly rod in your hand as well).

I would also like to thank some other grad students for their friendships along the way. First, to the Hucks – Jenni, Kevin, Maddie, and Charlie. Living with you guys for a year was a blast, and you have become great friends. I look forward to seeing you all up in Wisconsin. Renee, we may have gotten off to a rocky start, but your friendship was needed this last semester. Naya, I miss your food already. And Kyle, thanks for pumping some iron with me – I needed the extra motivation.

I also need to thank Pete Collins. I am not sure if he will ever read this, but he became a very close friend of mine at Boise State. It was Pete above all else who helped me get through my first semester there, when I was questioning whether I was really cut out for graduate work. His support and guidance proved invaluable, and I don’t know how to properly thank him. Over the years he has become one of my closest friends, and I cherish that. My door is always open to you as well, and I hope to see you in Colorado – where I will school you in fly fishing once again.

Finally, to Gary Nicotera and the staff at the staff at the Allegheny County Courthouse Criminal Records Department – thank you. Your hard work pulling those
files for me helped me complete this project in quite the timely manner. So thank you for your patience and dedication.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>INTRODUCTION</td>
</tr>
<tr>
<td>II</td>
<td>LITERATURE REVIEW</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
</tr>
<tr>
<td></td>
<td>Summary of Zatz</td>
</tr>
<tr>
<td></td>
<td>Wave I</td>
</tr>
<tr>
<td></td>
<td>Wave II</td>
</tr>
<tr>
<td></td>
<td>Wave III</td>
</tr>
<tr>
<td></td>
<td>Wave IV</td>
</tr>
<tr>
<td></td>
<td>Current Sentencing Research</td>
</tr>
<tr>
<td></td>
<td>In/Out Decision</td>
</tr>
<tr>
<td></td>
<td>In/out Studies that do not Incorporate Interaction Effects</td>
</tr>
<tr>
<td></td>
<td>In/out Research with Interactive Effects</td>
</tr>
<tr>
<td></td>
<td>Trichotomizing the In/Out Decision</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
</tr>
<tr>
<td></td>
<td>Length of Sentence</td>
</tr>
<tr>
<td></td>
<td>Length of Sentence Research without Interactive Effects</td>
</tr>
<tr>
<td></td>
<td>Studies of Length of Sentence with Interactive Models</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
</tr>
<tr>
<td></td>
<td>Summary of Daly</td>
</tr>
<tr>
<td></td>
<td>Purpose</td>
</tr>
<tr>
<td></td>
<td>Methodology</td>
</tr>
</tbody>
</table>
Wide Sample Analysis ...............................................................75
Measuring the In/Out Decision ....................................................76
Measuring the Length of Sentence Decision..............................77
Deep Sample Analysis ...............................................................78
Interrater Reliability .................................................................80
Police Reports ...........................................................................81
Conclusion ..................................................................................82

IV ANALYSIS ...........................................................................84
Introduction ................................................................................84
Descriptive Statistics ...................................................................84
  Dependent Variables ...................................................................85
  Independent Variables ...............................................................85
  Legal Variables ..........................................................................86
  Extralegal Variables .................................................................86
  Descriptive Variables for the Black and White Datasets ...............87
    Black Dataset Demographics ...................................................87
    White Dataset Demographics ...................................................88
Analysis .........................................................................................90
  Bivariate Analysis .......................................................................90
Sentence Outcome .........................................................................92
  Overall Sample ..........................................................................92
  Black Offender Sample ............................................................95
  White Offender Sample ............................................................97
Length of Sentence .......................................................................99
  Overall Sample ..........................................................................99
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Variables and Measurements</td>
<td>65</td>
</tr>
<tr>
<td>2</td>
<td>Frequencies of the Dependent and Independent Variables for all Samples</td>
<td>89</td>
</tr>
<tr>
<td>3</td>
<td>Multinomial Logistic Regression Results of the Overall Model</td>
<td>95</td>
</tr>
<tr>
<td>4</td>
<td>Multinomial Logistic Regression Results of the Black Model</td>
<td>97</td>
</tr>
<tr>
<td>5</td>
<td>Multinomial Logistic Regression Results of the White Model</td>
<td>99</td>
</tr>
<tr>
<td>6</td>
<td>OLS Regression Results of the Three Models</td>
<td>103</td>
</tr>
</tbody>
</table>
Chapter I

Introduction

One of the oldest (see Sellin, 1935) and most consistent findings in all sentencing research is that race has a significant impact on both sentencing outcomes (Brennan & Spohn, 2008; Leiber & Blowers, 2003; Spohn & DeLone, 2000; Steffensmeier & Demuth, 2000; Unnever, Frazier, & Henretta, 1980; Zatz, 1987) and the length of sentence imposed on a convicted offender (Albonetti, 1991; Demuth & Steffensmeier, 2004; Spohn & DeLone, 2000; Spohn & Holleran, 2000; Steffensmeier & Demuth, 2000; Steffensmeier, Ulmer, & Kramer, 1998; Zatz, 1987). In other words, controlling for other variables, race still significantly influences the length of sentence an offender receives. These are unfortunate findings that warrant further exploration, and form the locus of the current research.

Where this research differs, however, is in the method of exploration. All of the preceding articles cited above utilized only quantitative approaches when examining racial disparities in sentencing outcomes and severity. This work, however, will employ a multimethod approach put forth by Daly (1994). Specifically, a quantitative analysis will first analyze whether disparities in sentence outcomes and severity exist in Allegheny County, Pennsylvania. Second, a qualitative analysis will be undertaken to examine if these disparities can be “explained away” and, if they cannot, why they may occur. Before further discussion of the methods is offered, it is important to analyze past research that has found racial disparities in sentence outcomes and severity. A brief
discussion of this follows, with a more detailed examination of the research offered in Chapter Two.

Several studies have examined the impact of race on sentencing outcomes. Sentencing outcomes refers to the in/out decision, or whether the convicted offender was incarcerated or not. Unnever et al. (1980) offered research on this subject that started to use more advanced statistical techniques when analyzing racial disparities in sentencing. They found that, even after controlling for salient legal variables (such as prior record and offense severity), race had a significant, direct effect. Specifically, whites had an 18% greater chance in the predicted probability of receiving a sentence of probation than blacks did (Unnever et al., 1980). Zatz (1987), in an examination of four Waves of sentencing research, echoed these findings, concluding that, in her most recent Wave, race had a significant effect on the sentence outcome imposed on offenders.

More recently, Steffensmeier and Demuth (2000) examined the impact of ethnicity on federal sentencing outcomes and found that whites were treated most leniently in regard to the sentence outcome. Research conducted by Spohn and DeLone (2000) added support to this finding. They concluded that race/ethnicity played a role in the decision to incarcerate, with both blacks (and Hispanics) more likely to be incarcerated than whites in Chicago.

Finally, research analyzing the impact of race on sentencing outcomes has started to focus on specific crimes when examining the impact. Leiber and Blowers (2003) studied whether race affected outcome decisions among misdemeanor offenders while Brennan and Spohn (2008) examined the effects of race and sentencing outcomes on drug
offenders in North Carolina. Leiber and Blowers (2003) found that race did not have a direct effect on the sentence outcome of misdemeanor offenders, but it did have an indirect effect. Specifically, black offenders were more likely to be classified as a priority and were less likely to receive a continuance. Both of these variables led to an increased likelihood that an individual would be incarcerated.

Brennan and Spohn (2008) analyzed the impact of race/ethnicity on sentence outcomes among a sample of drug offenders in North Carolina. Their sentence outcome variable was more complex than the previous studies cited. It included community punishment (probation), intermediate punishment, and active time (incarceration). The researchers found that race/ethnicity was the only extralegal variable that influenced the sentence outcome. Specifically, white offenders were more likely than both black and Hispanic offenders to receive community punishment.

The preceding literature suggests that race/ethnicity significantly influences the sentence outcome, both directly and indirectly and for various types of offenses. This is only the first step in the sentencing process, however. Once an offender receives an incarceration sentence, the next decision is how long the sentence will last. As the following literature suggests, race also influences the length of the sentence imposed on an offender.

Several studies have examined the impact of race on the length of sentence imposed on an offender. Zatz (1987), in her examination of sentencing literature, concluded that, as with sentence outcome, length of sentence was also significantly influenced by the race of the offender. Albonetti (1991) came to similar conclusions. She
examined sentencing data of felony offenders in Washington D.C. and found that race significantly influenced the severity of the sentence imposed, with blacks receiving longer sentences. The work of Steffensmeier and Demuth (2000) sited previously also examined the impact of racial/ethnic disparity on sentence severity among federal offenders. Their findings mirrored those of the sentence outcome findings. Specifically, whites received the most lenient sentences as compared to black and Hispanic offenders.

Demuth and Steffensmeier (2002) examined the impact of race/ethnicity on sentence severity among a sample of offenders appearing in state felony courts. They found that white offenders received the most lenient sentences, compared to their black and Hispanic counterparts. Further, they found the greatest ethnic disparity (i.e. Hispanics) in sentence severity among drug offenders, while the greatest racial disparity (i.e. blacks) was found between property offenders. This finding suggests that type of crime may play a role in a judges sentencing decision.

Another approach taken in sentence severity studies is the examination of interactive effects on the length of sentence imposed. Rather than analyzing each variable independently, interactive effects combine independent variables to examine if multiple variables interacting affect the dependent variable. One of the first examinations of interactive effects and sentencing decisions was conducted by Steffensmeier et al. (1998). Utilizing Pennsylvania sentencing data, they concluded that young black males were sentenced more severely than any other group.

Spohn and Holleran (2000) replicated this method in their examination of a sample of convicted felons from Chicago, Kansas City, and Miami. Included also in this
study were Hispanic offenders, a group omitted in the Steffensmeier et al. (1998) study. Spohn and Holleran (2000) surprisingly found that these interactions do not significantly influence the length of sentence imposed on the offender. They did find, however, that young black and Hispanic males face greater odds of incarceration (sentence outcome) than any other group. Spohn and DeLone (2000) utilized the same data set to examine other interaction effects and their impact on sentence length. In Kansas City, they found that black offenders who committed drug and property crimes received significantly longer sentences than white offenders convicted of the same crimes. In addition, unemployed blacks and Hispanics received significantly longer sentences than unemployed whites in Chicago.

The common theme found in these articles is that race does significantly impact both the sentence outcome and the length of sentence imposed on the offender. All of the articles sited, however, used quantitative analyses to examine the role of race in sentencing decisions. While this is an acceptable method of sentencing research, Daly (1994), in her work *Gender, Crime, and Punishment*, suggested that quantitative analyses of sentencing decisions alone may not be the most appropriate method of analysis when examining sentencing disparities. Daly (1994) utilized a multimethod approach in her examination of sex-based sentencing disparities in a New Haven court. First, she conducted a regression analysis of the sentencing data to examine the impact of sex\(^1\) on sentence length. Second, she collected and read pre-sentence investigation reports (PSIs) and transcripts from the sentencing of the defendant to examine if the sex disparities

\(^1\) Daly used the term “gender” in her study. However, the current study will use the term “sex” to refer to biological differences, not social differences.
could be explained utilizing qualitative data. She offered several compelling arguments for this approach.

First, she attacked the methods utilized in quantitative analyses of sentencing disparity. She suggested that the data of these research projects are far from complete. Specifically, Daly (1994, p. 5) argued that, “little is known about the offense, measures of the outcome or punishment are crude, and there is limited information on the defendant.” The endgame of these studies was to determine if sentencing disparities exist, but all suffer from a lack of detailed data. She argued that a judicial decision on sentencing takes a myriad of factors into account, factors that cannot be captured by quantitative data alone. Further, she rightly pointed out that a very important question eludes studies that relied solely on quantitative analyses – why? Why did a male receive a longer sentence than a female? Quantitative data alone does not allow for a more in-depth examination of why this occurred; of what factors were considered by the judge that led to his or her decision. At face value it may look as if (in her study) females were treated more leniently than men. But without examining why this may have occurred, the study is incomplete and potentially inaccurate.

Second, Daly (1994) also criticized the few qualitative studies on sentencing disparities, most of which have been conducted by legal scholars and defense advocates. Specifically, these examinations focused on individual stories of disparity. Many of these were the most sensationalized, politicized cases and did not represent the typical felony case. While she chastised the method of selecting the cases for study, she lauded the use of cases in the examination of sentencing disparities. They brought a depth of analyses to
sentencing research that was lacking in quantitative analyses. The goal of her research, then, was to apply this approach, but to select cases that were considered more typical.

Her findings were striking. The results of the quantitative analysis suggested that sex did play a significant role in sentencing decisions – with females receiving shorter prison terms than their male counterparts. However, after analyzing the qualitative data, she concluded that the sex disparities could be explained away when other factors were taken into account (Daly, 1994). These factors included prior record, the details of the offense, and the attitude of the defendant, among other items (a much more detailed discussion of her work and findings will be offered in Chapter Two). However, she did offer one conclusion that was unsettling – race disparities may not be able to be explained away as easily as the sex disparities. This finding is the catalyst for the proposed research. Specifically, Daly’s (1994) methods will be employed to examine if race has significant effects on both the sentence outcome and the length of sentence.

Daly (1994) offered a unique way to examine disparities in sentencing decisions. Further, the research suggested that racial disparities may be harder to “explain away” than the disparities found among males and females. While prior research did suggest that the race of a defendant played a significant role in the length of the sentence imposed, it had not examined this question using extensive qualitative analysis. Daly (1994) and her work provided an excellent blueprint to employ to examine this question, but as of yet no researcher has replicated her study to examine racial disparities, even after they were found to exist in her work. The importance of this research project, then, is to add to the vast research on sentencing by conducting a multimethod examination of racial sentencing disparities in Allegheny County. By replicating her two-pronged approach to
analyzing disparities in sentence outcome and length of sentence, I hope to further the sentencing literature by offering a more thorough analysis of the racial disparities present in sentencing decisions.

Chapter Two, the literature review, will first offer a detailed discussion of the bifurcated sentencing process. Specifically, research examining the impact of race on sentence outcomes will be highlighted, followed by the influence of race on length of sentence. This evidence should suggest that the current proposed research is an important endeavor that will provide a deeper examination of sentencing decisions and disparities. Second, a description of Daly’s (1994) work will be presented, including the methods employed by her and the salient findings of the impact of race on length of sentence that she discussed.

Chapter Three, the methods section, will offer a thorough description of the methodology that will be employed for this study. It will offer a description of how both the quantitative and qualitative data will be collected, along with how the data will be analyzed. The data itself will be collected from Allegheny County. The quantitative data will be purchased from the Pennsylvania Sentencing Guideline Commission for all Pennsylvania offenders. It will include all felony offenders sentenced in the county between 2004 and 2006. The qualitative data will be collected from the Allegheny County courthouses, specifically the Criminal Records Office. This office contains the records of all individuals sentenced in the county, and specifically the police report of the crime committed (which will be used instead of the PSI report)
Chapter Four will provide the findings of the research. It will consist of models highlighting the quantitative results and descriptions of the qualitative analyses. This will include excerpts from both the police reports and court transcripts. Finally, Chapter Five will offer an in-depth discussion of the findings. It will offer discussions on why these results have occurred, what they mean, limitations of the study, and directions for future research.
Chapter II

Literature Review

Introduction

Chapter II will offer a summary of the sentencing research that focused on the impact of race/ethnicity on sentencing decisions. As highlighted in Chapter I, sentencing research is one of the most comprehensive areas of scholarship in criminology. The research conducted suggests that race/ethnicity plays a significant role in sentencing decisions. The purpose of this chapter, then, is to highlight the findings of these various works to offer evidence that race has played a role in sentencing decisions, and continues to do so.

The chapter will start with a summary of a study conducted by Marjorie Zatz (1987). The purpose of this summary is to draw attention to the early studies on sentencing disparity. Zatz (1987) summarized sentencing research from the 1930s to the 1980s. It provides a welcome backdrop to discuss the evolution of sentencing literature, focusing on the lack of both methodological and statistical rigor utilized in these early works. Several studies will also be described in this summary as examples of the works she discussed.

Following this summary will be a discussion of current research conducted on the bifurcated sentencing process, focusing on the role race plays in these decisions. Research will first be summarized on the in/out decision. As will be explored more fully in the following sections, sentencing research can be broken down into two general categories: those that do not examine interaction effects and those that do. Both types of research will be summated, along with more current research that trichotomizes the in/out
decision (probation v. jail v. prison). The second decision, length of sentence imposed on an offender, will be summarized using the same two categories.

Focus will then shift to the theories of sentencing disparity that will be examined in the qualitative analysis of the trial transcripts. Four will be summarized: social dynamite (Spitzer, 1975), uncertainty avoidance (Albonetti, 1991), liberation hypothesis (Spohn & Cederblom, 1991), and focal concerns theory (Steffensmeier et al., 1998). A description of each theory will be offered. In addition, studies testing each theory will be discussed to provide support for each.

Finally, a detailed summary of Daly’s (1994) research will conclude Chapter II. It will offer discussions on why she undertook the study, the methodology she employed, and the findings of the study, focusing primarily on the effects of race on sentencing decisions.

While there has been a plethora of research on the impact of race/ethnicity on sentencing decisions, very few have employed a multimethod approach in an attempt to gain a deeper understanding of why it has a significant effect. The purpose of this chapter is to offer evidence that race has been found to influence the decision to incarcerate and the length of sentence imposed. However, it should also become apparent that more scholarship is needed to have a better understanding of why this occurs.

**Summary of Zatz**

In 1987 Marjorie Zatz wrote a report on four historical waves of sentencing research. The first wave of research focused on material published from 1930 to the mid 1960s. Wave II detailed articles from the late 1960s to the 1970s. Wave III examined research that was conducted in the 1970s and 1980s with data from the late 1960s to the
1970s. Finally, Wave IV research was conducted in the 1980s but with data from the late 1970s and 1980s. Pertinent to the current research, this section will focus on the shifting methodologies of the four waves, as Daly’s (1994) research was a major shift in the methodological study of sentencing. Further, findings of the impact of race/ethnicity will be highlighted.

**Wave I.**

The vast majority of the research highlighted in Wave I showed both a clear and consistent bias against nonwhite defendants in sentencing, which is not surprising given that this research was conducted prior to any civil rights gains (Zatz 1987). Minority offenders faced disadvantages throughout the system (arrest, bail, etc.), known as cumulative disadvantage. These disadvantages became compounded, accumulating bias throughout the process, and manifesting in clear sentencing disparities.

While great disparity was witnessed in these results, there were several methodological flaws found in the research (Zatz, 1987). The first flaw of the research was that control variables, such as prior record, were not included. Further, the statistics used were unsophisticated, utilizing mostly cross-tabulation. Therefore, the lack of methodological rigor, both in the creation of the models and the analytic techniques employed to examine them, could have led to unreliable results. However, given the time period these were conducted in, coupled with the large racial differences in regard to sentencing found in the research, it is still very likely that there was overt sentencing discrimination during this Wave (See Bullock, 1961; Sellin, 1935 for specific examples).
Wave II.

Wave II consisted of research conducted in the late 1960s to the 1970s. Because this research was undertaken during and after the civil rights movement, studies materialized that showed no discrimination (See Jaros & Mendelsohn, 1967). Overt discrimination was no longer acceptable during this time, and because the courtroom was a public arena, discrimination had to be quelled. Further, the economic recession led to high rates of urban street crime which, in turn, focused attention on social control and away from racial disparities.

Another cause that could be attributed to the lack of significant findings was the considerable advances in statistics (Zatz, 1987). These advances led researchers to question whether some of the disparities found in prior studies could be explained away by more rigorous testing. Several researchers (Cohen & Kluegel, 1978; Hindelang, 1978) concluded that minorities were overrepresented in the criminal justice system because they were involved in more crime, proportional to their population. Specifically, Cohen and Kluegel (1978) examined sentencing disparities among juvenile offenders. Scrutinizing their prior records, the authors suggested that the reason for their more severe sentences was their greater number of prior convictions. In other words, they were involved in more crime, and therefore were sentenced more severely.

Hindelang (1978) examined the representation of blacks and whites for the crimes of rape, robbery, and assault via self-report surveys and UCR data. Both the self-report and UCR reported an overrepresentation of blacks for these crimes. Hindelang first criticized self-report data, suggesting they are unreliable because they are weighted toward the least serious offenses, they are administered at schools, which have a higher
drop-out rate among black students, and the overall number of blacks in the sample was too small for reliable conclusions. In regard to the UCR, an analysis of the data suggested that blacks were overrepresented because, proportionally, blacks were significantly more likely to be involved in these crimes.

Further, other researchers (Hagan, 1974; Kleck, 1981) suggested that the race effect would lessen once prior record was controlled for. Hagan (1974), analyzing prior research on sentencing concluded that, in regard to race, when offense type was held constant among offenders, coupled with no prior record for each offender, race had no significant effect on sentencing decisions. When the offenders both had committed the same offense and both had prior records, race had a small, significant effect. The only area Hagan found a strong, significant effect of race on sentencing was in interracial capital cases in the Southern United States.

Kleck (1981) came to a similar conclusion. He reevaluated earlier published research on both sentencing and death penalty cases, adding legally relevant variables to the analysis. What he found was that, except in the Southern United States, black homicide offenders were less likely than whites to receive a death sentence. He found that crimes with black victims were less likely to lead to execution. The undervaluing of black victims may be why black offenders received more lenient sentencing. In regard to crimes that were not punishable by death, once prior record was controlled for the sentencing disparities witnessed in black offender white victim crimes could be explained.

While the research of Wave II generally concluded no racial disparities in sentencing, it argued that the research did suggest race effects, although these were
usually ignored by other researchers of the time (Zatz, 1987). First, researchers argued that race could have a cumulative effect by indirectly operating through other variables that represent minority disadvantage. Second, race may interact with other factors. It was not until Wave III, however, when these race effects were examined.

**Wave III.**

Wave III research was conducted in the 1970s and 80s but reexamined the data from Wave II. New techniques – such as longitudinal studies – were employed to offer a more meticulous examination of the “no discrimination” findings. Researchers were noting that main effects were not the only pertinent variable to consider, and more subtle areas had to be analyzed (Peterson & Hagan, 1984).

Peterson and Hagan (1984) examined sentencing outcomes of drug offenders during an anti-drug crusade. Utilizing quantitative techniques, the authors conducted a more intricate study of the impact of race on sentencing. Race was broken down into white and nonwhite, and they analyzed varying levels of drug dealers and the sentences received. They found that nonwhite prominent drug dealers received the most severe sentences. They explained this finding by analyzing comments made by a specific judge in the case of Leroy “Nicky” Barnes. The judge, in handing out a life sentence for violating the Continuing Criminal Enterprise provision of the 1970 Federal Drug Act, articulated that Barnes not only affected thousands of people, but he affected his own community. Peterson and Hagan posit that judges viewed nonwhite big drug dealers as more villainous because they were further victimizing an already victimized community. The authors concluded by imploring future research to analyze the impact of race on sentencing at a more contextual level.
Just as important as the advances in data entry, two methodological issues were discovered and corrected during Wave III. First, she argued that selection bias was an issue in sentencing studies. As Zatz (1987, p. 75) described, “when persons who were filtered out of the system at earlier decision points are excluded from a sample, variation in sentencing outcomes due to race/ethnicity, as well as social class and gender, may be inappropriately removed.” An error of this nature could statistically mask discrimination.

The other error discovered was specification error, which suggested that the model was not drawn correctly. Specifically, social scientists realized that race/ethnicity may have had an indirect effect on sentencing by interacting with other variables, such as prior record and type of offense. If a model was not created to incorporate these interaction effects, the indirect influence of race/ethnicity would not have been found. Lizotte (1978) examined sentencing inequality through a conflict model lens. Analyzing data from Chicago, he found that those who were detained prior to trial (i.e. did not make bail) were more likely to receive a longer sentence. However, black defendants were more likely than their white counterparts to not make bail, as they were more likely to be found in the laborers group than the proprietors. Therefore, race had an indirect effect on increasing the length of sentence imposed on a defendant.

LaFree (1985) came to similar conclusions several years later. He examined sentencing disparity between a sample of white, black, and Hispanic defendants in Tucson, Arizona and El Paso, Texas. LaFree found no sentencing disparity based on race (either direct or indirect) in Tucson, but he did uncover indirect sentencing disparity in El Paso. Like Lizotte (1978), LaFree (1985) found that bail had a significant influence on different outcomes, and race/ethnicity (in this case Hispanic) influenced whether an
individual could post bail. Specifically, Hispanic defendants were more likely to be convicted in jury trials and received more severe sentences when they were convicted by a jury. Because they had less favorable pretrial release outcomes they were more likely to go to trial in the first place.

Overall, then, Wave III ushered in a new thinking to sentencing research. By creating more efficient ways to analyze data and highlighting the issues of selection bias and indirect effects, a more rigorous era of sentencing research began. Wave IV, the final Wave examined by Zatz (1987) continued this line of research. What it focused on, however, was the impact determinant sentencing had on sentence outcomes.

**Wave IV.**

What led to the Wave IV studies was not a statistical or analytical breakthrough; rather it was the implementation of determinate sentencing. Determinate sentencing arose because many felt the model of rehabilitation had failed. Street crime had not reduced, and a new method had to be employed to lessen crime. Presumptive sentencing was introduced, limiting the discretion of the judge.

Scholars focused their attention on this limiting of judicial discretion. What was argued by scholars was that the discretion was not abolished; rather it was displaced. They suggested that discretion shifted from the judge to the prosecutor. Specifically, because a sentence was already stipulated for each offense, the only way a sentence could be modified was to amend the charge of the defendant, which was a job of the prosecutor. During this Wave of research incorporating plea bargaining became incredibly important. Petersilia (1985), in an examination of racial discrimination in California, Michigan, and Texas, briefly touched on the issue of plea bargaining. She found that in all three states
white defendants were more likely to be convicted via plea bargain than minorities. This had a significant impact on sentencing. Specifically, those who were found guilty at trial received a significantly longer sentence than those who pled guilty.

Zatz (1987) compiled an expansive summary of various waves of sentencing research, which highlighted, in most Waves, that race did significantly influence sentencing decisions – both the in/out decision and the length of sentence imposed. Since Zatz’s (1987) work was published, sentencing research has continued to progress. What has been found is that race/ethnicity still continues to influence sentencing decisions.

**Current Sentencing Research**

Since the time of the Zatz (1987) report, disparities in sentencing have continued to be widely studied in criminology. The research has examined disparities in both the in/out decision (whether an offender is incarcerated or not) and the length of sentence imposed on the offender. These studies analyzed the impact both legal and extralegal variables had on the in/out and length of sentence decisions. Spohn (2009, p. 84) defined legally relevant variables as, “case characteristics and offender attributes that judges are legally authorized to take into consideration.” These include such factors as the severity of the offense, prior record, use of a weapon, etc. In contrast, extralegal variables are, “case characteristics and offender attributes that judges are either legally prohibited from taking into consideration or that bear no rational relationship to the purposes of sentencing” (Spohn, 2009, p. 84). These include race, sex, age, class, and the like. Both legal and extralegal factors have been found to play a significant role in both sentencing decisions.
First, articles analyzing the role race plays on the in/out decision will be summated. Further, it will examine research on this topic conducted in Pennsylvania and highlight findings that will be salient to the current study (Demuth & Steffensmeier, 2004; Holleran & Spohn, 2004; Kramer & Ulmer, 2009; Kramer & Lubitz, 1985; Steffensmeier & Britt, 2001; Steffensmeier & Demuth, 2001; Steffensmeier & Demuth, 2000; Steffensmeier et al., 1998). A discussion will then follow concerning the more rigorous examination in/out research is currently experiencing: trichotomizing the dependent variable. Specifically, the in/out decision is now broken down into probation, jail, and prison (Frenzel, 2005; Harrington & Spohn, 2007; Holleran & Spohn, 2004; Wang & Mears, 2010).

Attention will then shift to the copious amount of research that has examined the role legal and extralegal factors play on the length of sentence imposed on the offender, in particular their race. As with the in/out decision, research conducted in Pennsylvania will be summarized in this section, as it is germane to the current study (Demuth & Steffensmeier, 2004; Holleran & Spohn, 2004; Kramer & Ulmer, 2009; Kramer & Lubitz, 1985; Steffensmeier & Britt, 2001; Steffensmeier & Demuth, 2001; Steffensmeier & Demuth, 2000; Steffensmeier et al., 1998).

**In/out decision.**

The in/out decision is the decision made by the judge to either incarcerate the convicted offender (in) or release him or her on probation (out).² Current sentencing research has examined several variables that have had an impact on the decision,

---

² It should be noted that jail has been conceptualized as an “out” decision as well.
including race. Overwhelmingly, sentencing research has found that race has impacted this decision both directly (Demuth & Steffensmeier, 2004; Spohn, 2000; Spohn & Holleran, 2000; Steffensmeier & Britt, 2001; Steffensmeier et al., 1998; Unnever & Hembroff, 1988) and indirectly, via interaction effects (Demuth & Steffensmeier, 2004; Spohn, 2000; Spohn & Holleran, 2004; Steffensmeier & Britt, 2001; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1998).

A myriad of studies examine the first step in the bifurcated sentencing process, examining whether race played a role in the decision to incarcerate. One such study was undertaken by Bridges, Crutchfield, and Simpson (1987). These scholars examined the in/out decision at the aggregate level. Specifically, the authors conducted this study with county-level data in the state of Washington, comparing urban to rural counties and counties with varying levels of minorities in the population. Pertinent to the current research, the authors found that nonwhites (in this case conceptualized as black, Hispanic, and Native American) were sentenced more severely than whites in counties with large minority populations and those counties that were highly urbanized. Importantly, these findings were still significant even after controlling for serious and violent crime.

This latter finding is important because it contradicted earlier works such as Blumstein’s (1982), which stated that minorities were sentenced more harshly than whites because they were more heavily involved in serious and violent crime. The work of Bridges et al. (1987) found that macro-level factors, such as urbanization, have a significant impact on racial sentencing disparities.
Bridges et al. (1987) then conducted a small qualitative examination for this research. They interviewed several justice officials and community leaders to try to better understand why and how this differential treatment occurred. One Assistant District Attorney suggested that the county crime problem was a “minority problem” and that many blacks are “part of the criminal element” and that they “have a hard time keeping out of the hustle,” concluding that they “need to be warehoused” (Bridges et al., 1987, p. 355). Additionally, he admitted that he did use racial stereotypes when sentencing because he knew a criminal when he saw one.

Statements such as these were not made by prosecutors alone. One judge stated that blacks did have a more extensive criminal history, they were more prone to violence, and they were much more likely to use weapons. What was striking was that Bridges et al. (1987) examined this claim, and found that the data from this county did not support what was said. However, interviews with police and prosecutors from this county did support it. This suggested that, for this county at least, perception was stronger than reality and perceptions were taken into account when sentencing.

These were important findings of aggregate-level in/out data. Further, data such as this are still reported. For example, Spohn (2009) reported that blacks currently make up 40% of the United States prison population, while only comprising approximately 13% of the general population (U.S. Census Bureau, 2011), demonstrating clear disparity. However, the majority of in/out research does not take a macro-level approach to examining the racial disparities of in/out decisions. The following sections will highlight three different ways this decision has been analyzed: racial differences without
interaction effects, racial differences with interactive effects, and trichotomizing the
dependent variable to probation, jail, and prison.

\textit{In/out studies that do not incorporate interaction effects.}

Scholars who chose not to incorporate interactive models in their examination of
sentencing disparities examined differences through an additive model. Unnever and
Hembroff (1988) conducted one such study, examining the role race played on the
decision to incarcerate drug offenders in Miami. Salient to the current study, Unnever and
Hembroff (1988) found that, when holding constant all other variables in the equation the
odds of incarceration for blacks was 2.5 times greater than the odds of incarceration for
whites (Unnever & Hembroff, 1988). In other words, blacks were the racial group likely
to be incarcerated for drug offenses than whites, even when all other legally relevant and
irrelevant variables were held constant.

Unnever and Hembroff (1988) then examined the data more closely, creating
what they referred to as performance sets. Using predicted probabilities, the authors
examined seriousness of the offense, prior record, selling drugs, whether it was opium or
not, employment status, and whether the defendant was a professional or not. A
consistent performance set (placed in the predicted probability equation) was when all six
of these traits were represented in the more or less desirable trait. When this was done,
the influence of race was minimized. When the set was inconsistent, race played a more
significant role. The authors hypothesized that when this inconsistency occurred, a judge
had to utilize other factors to make a sentencing decision, and race was the deciding
factor.
Steffensmeier et al. (1998) examined the role of race, age, and sex on sentencing decisions. The researchers examined a group of offenders from Pennsylvania using Pennsylvania Sentencing Guideline data. The dependent variables were the in/out decision (dichotomous) and the length of sentence (these findings will be discussed later). They concluded that prior record and offense severity were the most significant predictors. Further, multiple convictions, mode of conviction (bench and jury trial), court size, sex (male), and age (younger) all significantly influenced the decision to incarcerate. In regard to race, black offenders’ odds of incarceration were 1.5 times greater than white offenders. In terms of probabilities, the odds yield a difference in the probability of incarceration between blacks and whites of 10% (Steffensmeier et al., 1998). The authors examined the role of race, sex, and age in more depth in this report, but their findings will be closely examined in the interaction section of this chapter.

Several other studies yielded similar conclusions. Steffensmeier and Britt (2001) found that white offenders are slightly less likely to be incarcerated than black offenders. Other important findings were that the most important predictors were prior record and offense gravity, and that older offenders, female offenders, and those who pled guilty were less likely to be incarcerated. Steffensmeier and Demuth (2001) also found that, for non drug cases, black defendants were six percent more likely to be incarcerated than white defendants.

Spohn and Holleran (2000) also examined the impact of race on sentencing outcomes. They examined sentencing data from Kansas City, Miami, and Chicago, studying the impact of both legal and extralegal variables on the decision to incarcerate. No differences in the in/out decision were unearthed in Kansas City or Miami. In
Chicago, however, black offenders faced greater odds of incarceration than white offenders.

Mimicking the trend of examining ethnicity as well as race, Demuth and Steffensmeier (2004) attempted to analyze the impact of ethnicity on sentencing decisions more closely. Their race/ethnicity category included non-Hispanic white, non-Hispanic black and Hispanic of any race. They hypothesized that including white Hispanics in the “white” group would mask significant differences in the sentencing of whites and blacks. First, they found that the legal variables of prior record and offense severity were the most important predictors of incarceration. Turning to race/ethnicity, the authors found that black and Hispanic defendants were more likely to be incarcerated than whites. Specifically, the odds of incarceration were 57% greater for blacks than whites. Hispanics faced 45% greater odds of incarceration than whites (Demuth & Steffensmeier, 2004). When controlling for type of crime, Hispanics and blacks were significantly more likely to be imprisoned for property crimes, but not violent crimes.

In a comprehensive analysis of sentencing research, Spohn (2000) analyzed forty articles that examined the role race/ethnicity played in sentencing decisions. Spohn (2000) undertook this as a follow-up examination of the research conducted by Chiricos and Crawford (1995). These researchers examined 38 studies and found that race had a direct and significant impact on the decision to incarcerate. This finding was consistent even after both the offense gravity and prior record scores were controlled for. The data used by Chiricos and Crawford (1995), however, ranged from 1979 to 1991. Spohn (2000) endeavored to use more recent literature to observe if these findings still held true.
Spohn (2000) found evidence of direct discrimination in the punishment of racial minorities. At the state level, 41 out of 95 black versus white models highlighted significantly more severe punishment for black offenders compared to white offenders. This was the case more often in the in/out decision than in the length of sentence decision. These findings led Spohn (2000, p. 474) to conclude that there was, “support for ‘a hypothesis of overt discrimination.’”

Racial discrimination in the in/out decision has been found at the Federal level as well. Steffensmeier and Demuth (2000) examined sentencing disparities in federal courts and found that the decision to incarcerate was significantly impacted by race. As at the state level, the authors found that blacks faced a greater odds of incarceration than whites. Spohn’s (2000) analysis of forty sentencing articles supports these findings. Specifically, approximately 66% of the black versus white estimates found overt discrimination in sentencing decisions at the federal level (see also Walker, Spohn, & DeLone, 2004). Mitchell’s (2005) meta-analysis (which included fifteen federal studies) also suggested that unwarranted racial disparity existed at the federal level. Interestingly, it became more severe as the year of the examination increased, suggesting that this disparity is not a thing of the past. Finally, Doerner and Demuth (2010) also reported blacks had higher incarceration rates (and received longer sentences) than white federal offenders.

Another interesting line of in/out research examines the incarceration via specific offenses. The one crime analyzed most often has been drug offenses. Steffensmeier and Britt (2001) found that those convicted of drug offenses experienced a more pronounced disparity. Blacks were 7% more likely than whites to be imprisoned for a drug offense (compared to 6% for a non drug offense) (Steffensmeier & Britt, 2001).
In sum, race/ethnicity has had a significant influence on the decision to incarcerate at both the state and federal level. In addition, even when examining the effect of race on the in/out decision of specific crimes, it does not lose its significance. In other words, race is a very strong and important predictor in sentencing decisions, yet why this occurs has not been adequately answered. More rigorous techniques have been utilized to analyze its effect, however. One such technique is examining interactive effects.

Research that has utilized this method is discussed next.

*In/out research with interactive effects.*

A critical addition to the sentencing literature was the examination of interactive effects on sentencing decisions. Pratt (1998, p. 514) suggested that interactive effects, “emphasize situational contexts in criminal justice processing.” In other words, a variable such as race/ethnicity would impact sentencing through its interaction with other variables, such as age, sex, and the like. Several scholars have undertaken this approach in their examinations of sentencing disparities, and all suggest that race/ethnicity does interact with other variables (including age, sex, and employment status) to significantly, and negatively, impact sentences for minority offenders (Spohn, 2000; Spohn & Holleran, 2000; Steffensmeier et al., 1998).

Steffensmeier et al. (1998) were one of the first groups of researchers to incorporate the analysis of interactive effects in sentencing decisions. Using a sample of Pennsylvania offenders, the authors examined the interaction of age, race, and sex and their influence on sentencing decisions. The authors first examined differences in age (broken down into five groups) effects by both race and sex, and came to three major conclusions. First, they found that older defendants (both older black, white, male, and
female) were less likely to be imprisoned than younger defendants of these groups. Second, young adult offenders, regardless of sex, were more likely to receive a prison sentence. Finally, youthful but legally adult offenders (18-20 age range) were less likely to be imprisoned than young adult offenders, but more likely to be imprisoned than older offenders.

The authors then examined race-age effects for male defendants and female defendants. Focusing on males, they found that young black males are the group most at risk to receive a prison sentence. Specifically, the odds of imprisonment for white males between the ages of 18 and 29 was 0.38 less than black males in the same age group (Steffensmeier et al, 1998). As age increased, however, the influence of race decreased. By the time an offender reached the age of fifty, the influence of race had drastically diminished. Steffensmeier et al. (1998, p. 780) classified this as a, “classic case of an interactive effect.” The influence of race in the sentencing of males depends on the age of the defendant; in other words, how they interacted with each other.

Turning attention to females, the authors found that the odds of incarceration for white females were significantly less than those of black females in each of the age groupings. Unlike the male sample, the age of the female did not diminish the impact race had on the decision to incarcerate.

Finally, the authors examined the combined effect of age, race, and sex on sentencing. Focusing on the in/out decision, black males aged 18-29 were the most likely to receive a term of imprisonment. The next most likely group, black males aged 30-49, were eight percent less likely to receive one. The group least at risk, white females aged 50-69, were 35% less likely to receive a prison sentence than young black males.
(Steffensmeier, et al., 1998). The authors argue that – as seen in their rank ordering of likelihood to be incarcerated – the three defendant statuses were mutually dependent. Specifically, they suggested that the effect of race depends on sex and age, sex depends on race and age, and age on sex and race. In other words, they argued the importance of examining interactive effects, and not the effects of each independent extralegal variable separately.

Spohn and Holleran (2000) expanded on the work of Steffensmeier et al. (1998) by examining interactive effects in three different cities (Chicago, Kansas City, and Miami) and including “Hispanic” and employment status in the analysis as well. The authors first described the age-race/ethnicity-sex interactions on sentencing decisions (it should be noted that females could not be included because of their small number in the samples). In Chicago, the authors found that young black and Hispanic males and middle-aged black males faced higher odds of incarceration than middle-aged white males. In Miami, young black and Hispanic males and older Hispanic males faced higher odds of incarceration than middle-aged white males. Finally, in Kansas City both young black and white males faced higher odds of incarceration than middle-aged white males. In sum, in both Chicago and Miami, the combination of race/ethnicity and age was a more powerful predictor than any of the variables on their own. In Kansas City, age was more influential than race.

Finally, the authors found that unemployment status does matter, but it depended on both the race/ethnicity and age of the offender. In both Chicago and Kansas City, unemployed blacks and Hispanics were considerably more likely to go to prison than employed whites to be incarcerated (this echoed a previous finding by Chiricos and Bales
(1991), who found that unemployed blacks were the group most likely to receive a term of incarceration). In Chicago, unemployed young black and Hispanic males were substantially more likely to be incarcerated than any other group. These findings suggest, as with the Steffensmeier et al. (1998) work, that interactive effects need to be examined when analyzing sentencing decisions.

Spohn’s (2000) review of the sentencing literature included an analysis of articles that examined interactive effects. She used these studies to examine why minorities are punished more severely than whites. Utilizing various theories of race-based punishment – focal concerns (Steffensmeier et al., 1998), social dynamite (Spitzer, 1975), and racial threat (Crawford, Chiricos, & Kleck, 1998) – Spohn (2000) outlined why minorities are punished the way they are. Particularly, those minorities who were male, young, unemployed, serious drug offenders, victimized whites, pled guilty, and/or were unable to secure pretrial release were all punished more severely. This may be because they were seen as more dangerous, threatening, or culpable and therefore punished more severely than their white counterparts (a more detailed examination of the theories will be presented in a later section).

**Trichotomizing the In/out decision.**

Recent in/out research has called into question the practice of dichotomizing the in/out variable. Specifically, earlier research on this topic had conceptualized the in/out decision as either being sentenced to jail or prison (in) or placed on probation (out)\(^3\)

Several scholars have questioned this technique, suggesting that prison and jail are two separate and altogether distinct establishments, and therefore should not be classified as being the same. With this in mind, scholars have started to trichotomize the in/out

\(^{3}\) It should be noted that at other times it has been conceptualized as prison (in) versus else (out).
variable, examining probation versus jail versus prison. A summation of these articles follows.

Holleran and Spohn (2004) were among the first scholars to suggest examining the in/out decision more rigorously. They asserted that not only are jail sentences quantitatively different than prison sentences (those in jail usually serve one year or less while prisoners are in from over one year to life), but there are qualitative differences as well. For example, those in jail have committed misdemeanors or less serious felonies, or may just be waiting for their trial to begin. Conversely, those in prison have committed more serious offenses and may have more serious prior records.

To test this, Holleran and Spohn (2004) examined Pennsylvania sentencing data from 1998, focusing specifically on Philadelphia County. Controlling for numerous variables, the authors first analyzed the total incarceration variable via binary logistic regression. They found that both the offense gravity score and the prior record score significantly and positively influenced the decision to incarcerate. These variables were also significant in the multinomial logistic regression models that were run to analyze the trichotomized in/out variable. However, Holleran and Spohn (2004) found that the total incarceration variable masked racial/ethnic effects that the trichotomized variable uncovered. This model revealed that the odds of a prison sentence were much higher for black offenders than for whites. One pertinent finding was that white offenders who committed serious crimes were considerably more likely to be sent to jail than prison compared to their similarly situated black counterparts. This finding suggested that judges in Philadelphia County were showing more leniency to white offenders.4

4 It is important to note several other differences witnessed between the binomial and multinomial models. Mode of conviction was not significant in the binomial regression but was in the multinomial regression
Overall, this article offered evidence that the total incarceration variable had been masking significant information on a judge’s decision to incarcerate. Salient to the current research, race does take on a more significant role when jail and prison are separated. It is important, therefore, to continue to treat these two variables as qualitatively different and utilized multinomial logistic regression to analyze the in/out decision.

Frenzel (2005) continued in this line of research, examining the decision to incarcerate among a sample of nonviolent felons from Dade County during the years 1993-1994. Unlike Holleran and Spohn (2004), Frenzel (2005) was interested in sex differences in sentencing. Frenzel created three models: total incarceration versus probation, prison versus jail and probation, and the trichotomized jail versus prison versus probation. She found that in the first model males were more likely than females to be incarcerated. The second found no significant differences. In the multinomial model, males were more likely than females to be sentenced to jail rather than probation. There was no significant difference between the sexes in being sentenced to prison over probation. The race results highlighted that black offenders were more likely than white offenders to receive an incarceration sentence in the total incarceration model. In the prison/no prison dependent variable, both black and Hispanic offenders faced greater odds of incarceration than their white counterparts. In the model that tested the trichotomized variable, black offenders were more likely than white offenders to receive prison rather than probation, but there were no differences in jail versus probation and types of offense differences were much more apparent in the multinomial model. Specifically, the binomial model found that property offenders faced higher odds of incarceration than drug offenders. In the multinomial model, property offenders faced higher odds of jail incarceration, but there was no difference in odds of a prison sentence. The same held true for comparisons between violent offenders and drug offenders.
These findings are important because they highlighted two significant findings. First, the total incarceration variable masked the individual differences between the two outcomes. Second, the overall finding of significance in the total incarceration model overshadowed the lack of significance found in the prison outcome.

Harrington and Spohn (2007) continued to argue for the trichotomization of the in/out variable. The authors examined approximately 1,600 felony cases collected from a Midwestern State to analyze the differing conclusions of models utilizing a total incarceration variable and a trichotomized incarceration variable. As with the work of Holleran and Spohn (2004), the authors came to vastly different conclusions based on the model used. They found that in the total incarceration model blacks were sentenced more harshly than whites. However, when they created the trichotomized variable, it was revealed that blacks were more likely to receive jail over probation than whites, but black offenders were less likely than white offenders to be sentenced to prison over jail. Adding to prior research, Harrington and Spohn (2007) then examined interactive effects. Black males were the least likely race/sex group to be placed on probation rather than receive a jail sentence. Further, white males were the most likely group to receive a prison sentence.

Freiburger and Hilinski (2009) replicated this study and concluded, as did Harrington and Spohn (2007), that blacks had greater odds of receiving jail over probation than their white counterparts. Unlike Harrington and Spohn (2007), however, they did not find that whites were more likely to receive prison over jail than blacks. Rather, they found no differences in the odds of jail versus prison between the race categories. Freiburger and Hilinski (2009) also examined interactive effects, and found
that being young and black meant harsher treatment while being young and white led to greater leniency.

Brennan and Spohn (2008) also trichotomized the in/out variable in their research on the sentencing of drug offenders in the state of North Carolina. Focusing solely on those individuals convicted of a drug offense, the authors examined the impact of both legally relevant and irrelevant variables on the decision to incarcerate (in this case the dependent variable consisted of community punishment, intermediate punishment, and incarceration).

Five variables were found to significantly influence the sentencing decision: race/ethnicity, known criminal alias, prior record, number of indictment charges, and severity of the offense. What is important to note was that race/ethnicity was the only significant extralegal variable. In regard to this finding, whites were more likely than black offenders to receive the most lenient sentencing option (community punishment). This form of punishment was five times more likely to be received by whites than blacks.

While there is not a plethora of research committed to examining a trichotomized in/out variable, the articles summarized do suggest that this approach is something that needs to be utilized more often in sentencing research. Results of prior research suggest that creating a total incarceration variable masks the true impact of race on sentencing (see also Wang & Mears, 2010 who, in their examination of racial threat and sentencing, used only a trichotomized dependent variable and called for all researchers to do the same).
Conclusion.

In sum, the vast majority of sentencing research that examined the in/out decision concluded that race significantly influenced the decision to incarcerate. Furthermore, race impacted it both directly and indirectly. In other words, race was a significant influence on a judges’ decision to incarcerate. It also indirectly influenced this decision by interacting with other variables, including age, sex, and employment status. Sentencing, however, is a bifurcated process. After a defendant receives a term of incarceration, the length of the sentence must be decided. Sentencing research focuses on this decision as well, and will be examined in the next section.

Length of Sentence.

As discussed, race has a significant influence on the decision to incarcerate. The next step in sentencing research, then, is to examine if race impacts the length of sentence imposed on the offender. As with research focusing on the in/out decision, studies on the length of sentence imposed on an offender utilize both additive and interactive models. This line of research has concluded that race does play a role in the length of the sentence imposed, but the results of these studies are much more mixed than in/out research.

Length of sentence research without interactive effects.

As Zatz (1987) summarized, depending on which Wave of sentencing research was examined, race/ethnicity did or did not have a significant influence on the length of the sentence imposed on an offender. Since that time, researchers have continued to examine this extralegal variables’ effect on the length of sentence. This section will highlight studies conducted that did not test for interactive effects. Results were mixed, but many suggest that race did significantly influence the length of sentence imposed.
Albonetti (1991) recognized that the sentencing literature provided mixed results in regard to the role race played in the length of sentenced imposed on the offender. She examined this relationship more closely by integrating two theories: uncertainty avoidance and patterned responses (the theory will be examined in more detail in a later section). Briefly, Albonetti (1991) posited that judges attempted to manage their uncertainty in sentencing by patterning their responses. These responses rely on stereotypes about race, sex, and outcomes from earlier stages in the criminal justice system and how they would affect the likelihood that the offender would recidivate. In regard to race, she hypothesized that blacks would be punished more severely, based on stereotypes judges held about them. Specifically, they were perceived as more dangerous and more prone to crime, and therefore should have been punished more harshly than whites. Albonetti (1991) found support for her integrated theory. Black defendants received more severe sentences than their white counterparts.

Several other studies have examined how both race and ethnicity impact the severity of the sentence imposed on the offender. Steffensmeier et al. (1998), in their examination of sentencing practices in Pennsylvania, found that black defendants received sentences that were slightly (two months) but significantly longer than white defendants – a finding also supported by Steffensmeier and Britt (2001). Steffensmeier and Demuth (2001) came to a similar conclusion, finding that, for non drug offenses, blacks were sentenced on average roughly three months longer than white defendants. Disparities have also been witnessed at the macro-level as well. Ulmer and Johnson (2004) examined contextual factors that may explain sentencing disparities. They found that county-level concentration of blacks significantly increased the length of sentence
imposed on both groups, with the sentence received more severe than those imposed on white defendants.

Mitchell (2005) wanted to explore the impact of race on the sentencing decisions more carefully. The researcher was unconvinced that once legally relevant variables were controlled for the impact of race would be negligible. To test this, Mitchell conducted a meta-analysis with 71 published and unpublished sentencing articles, of which 116 effect sizes could have been analyzed (101 were state level analyses; the other 15 Federal). Mitchell (2005) set forth strict criteria that had to be met for each article. First, all articles had to contain data that was collected in the United States. Second, the data had to be from criminal courts (juvenile courts were excluded). Third, all articles that examined the death penalty were excluded. Fourth, controls for the seriousness of the offense and prior criminal record must have been included. Fifth, there had to be a direct measure of race on the sentencing outcomes, and finally it had to have been made available through 2002.

Mitchell (2005, p. 442) examined the data through the lens of the threat hypothesis, which posited that, “disparate treatment is most likely in cases embodying significant symbolic threat to the social order (emphasis in the original).” He goes on to give the example that a black male who raped a white woman would receive a more severe sentence than a black-on-black rape because this particular crime assaulted not only a white woman but the sexual stratification system currently in place. With this theory in mind Mitchell (2005) hypothesized that blacks would receive more severe sentences, even after legally relevant factors were controlled for.

To analyze the data, Mitchell (2005) controlled for offense severity and prior record. He concluded that, even after these variables were controlled, black offenders
received significantly more severe sentences than white offenders. It must be noted, however, that the results, while significant, were small, and subject to much variation (the latter depended on the methodological rigor of the study analyzed). Mitchell (2005) reported that this unwarranted disparity did increase when examining drug offenses, imprisonment decisions, and discretionary sentencing decisions.

Support for race impacting the length of sentence imposed on an offender was found at the Federal level as well. Steffensmeier and Demuth (2000) reported that blacks received sentences one month longer than whites on average and black-Hispanic offenders sixteen months longer than their white counterparts. Examinations of multiple articles concluded similar findings, as highlighted Spohn’s (2000) comprehensive examination of the research. She reported that at the Federal level approximately two-thirds of black versus white comparisons found more severe sentences for the minority defendants. These findings were echoed by the work of Feldmeyer and Ulmer (2005), who also found that blacks were sentenced more severely than whites. Mitchell’s (2005) meta-analysis also concluded more punitive sanctions for minorities at the federal level, with the punishments becoming more severe as the years increased.

As previously stated, however, research examining the impact of race on sentencing has led to much more mixed results than research that examined the in/out decision. It is important to highlight articles that have found no direct relationship between race/ethnicity and the length of sentence imposed on an offender. Spohn, Gruhl, and Welch (1981-1982) found no direct impact of race on the severity of the charge among a sample of 2,366 black and white defendants in an unnamed city. In fact, studies
conducted in a similar time frame found that whites were sentenced more severely than blacks (Myers & Talarico, 1986).

More recent studies had also come to similar conclusions. An examination of sentencing practices in two Florida counties revealed that race had no direct impact on the severity of the sentence imposed on an offender (Chiricos & Bales, 1991). Similarly, the various studies conducted with data from Miami, Kansas City, and Chicago have all reported no direct impact of race on the severity of the punishment (see Nobiling, Spohn, & DeLone, 1998; Spohn & DeLone, 2000; Spohn & Holleran, 2000). Finally, Demuth and Steffensmeier (2000) found that race had no influence on the severity of the sentence for either non drug or drug offenders. These data were collected from the State Court Processing Statistics program from Pennsylvania and contained approximately 9,500 defendants across sixteen counties.

As highlighted, the results of sentence length disparity research are more mixed than similar research that examines the decision to incarcerate. Some studies find significant and direct impacts of race on sentencing. Others, however, came to no such conclusions. With such mixed results, many researchers have turned to the examination of interactive variables to search for more subtle impacts of race on sentencing decisions.

**Studies of length of sentence with interactive models.**

As with research concerning the decision to incarcerate, studies on the severity of the sentence have also utilized interactive models to examine if race influenced this decision in more subtle, concealed ways. What researchers had concluded was that race, did seem to have a more profound effect on the length of sentence imposed when it interacted with differing variables, such as crime seriousness and prior record (Miethe &
Moore, 1986; Spohn et al., 1981-1982), pretrial release (Spohn, 2009; Spohn et al., 1981-1982), type of attorney (Spohn, 2009; Spohn et al., 1981-1982), marital status (Miethe & Moore, 1986), lived in urban areas (Miethe & Moore, 1986), bail (Albonetti, 1991), employment status (Nobiling et al., 1998; Spohn & DeLone; Spohn & Holleran, 2000), and type of crime (Spohn & DeLone, 2000).

Earlier research focused on the indirect ways race influenced the severity of the sentence. Spohn et al. (1981-1982) found that race had no direct impact on the severity of the sentence imposed. However, the researchers examined this relationship more closely with path analysis. They found that race did influence the sentence severity, but it did so indirectly. Four paths found race indirectly influencing the severity of the sentence. First, blacks were more likely to be charged with serious crimes and have more serious prior records. Second, black males were less likely than whites to receive pretrial release. Finally, black males were less likely than their white counterparts to be represented by a private attorney. All of these variables that race influenced had a significant impact on the severity of the sentence.

Miethe and Moore (1986) expanded on the interaction studies, examining if additive models mask potential race differences. The authors first ran an additive model, and found that race had no direct influence on sentence severity. However, the authors then examined how race interacted with several variables to observe if it indirectly influenced sentence severity. The researchers found that blacks who were single, lived in urban areas, have a prior felony record, and commit multiple serious offenses were all sentenced more harshly than similarly situated whites. They went on suggest that this may occur because they were viewed as the most dangerous type of criminal.
Albonetti (1991) also contributed to the interactive literature. She examined the race effect further, analyzing its interaction with both bail (non-financial release versus financial release) and plea (trial versus guilty plea). The interaction of race and plea was not found to be statistically significant. Race and bail did significantly and positively interact, however. In other words, placing financial restrictions on gaining pretrial release significantly impacts the sentence imposed, with blacks receiving much harsher sentences.

More recent research has continued to explore whether and how race may indirectly influence the severity of the sentence imposed on an offender. As previously highlighted, several of these more recent studies found no direct effects of race on the severity of the sentence imposed (Nobiling et al., 1998; Spohn & DeLone, 2000). However, many of the same studies examined how race interacted with other variables and did conclude that race plays a significant, albeit indirect, role on the sentence imposed on an offender.

Nobiling et al. (1998), using the data collected from Chicago, Kansas City, and Miami, found that race indirectly influenced the length of the prison sentence through unemployment (in Chicago). That is, unemployed black offenders received significantly longer prison sentences than their white equivalents. Employing the same data, Spohn and DeLone (2000) concluded that race indirectly influenced sentence length through type of crime (in Kansas City, black drug and property offenders were sentenced more severely than whites who committed the same crime), type of conviction charge (Kansas City), and employment status (Chicago). Steffensmeier et al., (1998), analyzing a sample
of convicted offenders in Pennsylvania, found that young black males received the most severe sentences of any other age/race/sex combination.

Spohn (2009), summarizing the results of many of the studies, concluded that race interacted with extralegal variables in sentencing decisions. Specifically, young black and Hispanic unemployed males are the groups sentenced the most severely. Spohn (2009, p. 189) went on to conclude that race also interacted with “process-related factors.” For example, studies have found that pleading guilty, being represented by a private attorney, or providing some sort of evidence or testimony led to greater sentence reductions for white defendants. Still other studies suggested that blacks who did not plead guilty, were detained before trial, or had a serious prior record were more likely to be punished more severely than similarly situated whites. Third, interactions between the race of the offender and victim, with blacks who assaulted whites, punished more severely than blacks who assaulted blacks. Finally, she offered that racial discrimination was confined to the type of crime, with drug crimes and less serious offenses leading to more discriminatory sentencing practices.

Pratt (1998) attempted to unravel some of the mysteries of race and sentencing research by conducting a meta-analysis of race-based sentencing articles written between 1974 and 1996. Through his readings, Pratt (1998) examined the findings through three theoretical frameworks: differential involvement, direct-impact, and interactionist perspectives. Keeping these perspectives in mind, Pratt (1998) analyzed literature that coincided with each to examine which best explained the racial disparity witnessed in sentencing literature. Interestingly, Pratt (1998) found that the only significant variable related to length of sentence was the severity of the offense. Neither race nor prior record
was statistically significant. Pratt (1998) argued that this lent credence to the differential involvement perspective, and perhaps to the interactionist perspective (suggesting that race may act through the severity of the offense) as well. Pratt (1998) then suggests that operationalization may be to blame in the lack of a significant finding. Some studies just examined white versus non-white, while others trichotomize into black, Hispanic, and white. These differences may not have allowed his meta-analysis to fully explore the role of race in sentencing.

Overall, the vast majority of studies concluded that race did play a role in the severity of the sentence imposed on the offender when its interactive effects are examined. Race played a role through both extralegal and process-related variables in ways that did significantly punish minorities more severely than white defendants. Age, sex, mode of conviction, type of attorney, seriousness of the offense, prior record, type of offense, and the race of the victim were all significantly influenced by race. So while race may not have directly influenced the sentencing decision, it did seem to do so indirectly.

**Conclusion.**

Unlike the in/out decision research, which highlighted a myriad of cases of direct racially discriminatory sentencing practices, the research examining the second half of the sentencing decision was much mixed. Results were mixed, at best, when examining direct influences of race/ethnicity on sentencing. Some studies did find that race directly influenced this decision (Albonetti, 1991; Holms et al., 1996; Steffensmeier & Britt, 2001; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1998; Ulmer & Johnson, 2004) while others found no evidence of this (Chiricos & Bales, 1991; Myers & Talarico, 1986; Nobiling et al., 1999; Spohn & DeLone, 2000; Spohn & Holleran, 2000;
Spohn et al., 1981-1982). However, an examination of the influence of race/ethnicity via its interactions with differing variables suggested that race played a more subtle, yet no less significant role in the severity of the sentence imposed. Therefore, as Miethe and Moore (1986) and Pratt (1998) suggested, the interaction of race on other variables should continue to be examined in all lines of sentencing research.

Summary of Daly

The current research will attempt to utilize the methods employed by Daly (1994) in her work, *Gender, Crime, and Punishment*. Daly’s (1994, p. viii) two research questions are, “Do statistical studies mismeasure justice?” and “Should punishment policy be gender-neutral or not?” While these research questions may not be germane to the current research, the methodological blueprint put forth by Daly (1994) will allow the researcher to replicate the study to answer the current research questions. Further, the results presented in her work are salient to the current research as well. As such, *Gender, Crime and Punishment* will serve as the outline for the current research. The following sections will first summarize the purpose of her work. Followed will be a detailed discussion of her methodology. Finally, the results of her work will be summarized, along with a discussion of the implication of these findings.

**Purpose.**

Daly (1994) undertook this research because of a disconnect she examined between what court defendants reported about racism and sexism in criminal justice and what published research concluded. Specifically, Daly (1994) briefly highlighted two pieces of published work (Hagan & Bumiller, 1983; Kleck, 1981) that found little support of whites receiving more lenient sentences in noncapital cases. This contradicted reports
of court defendants who claimed that there was rampant racial discrimination in the
criminal justice system in general and in sentencing specifically. To support her decision
to analyze sex differences, Daly (1994) highlighted several journal articles that did
suggest women were treated more leniently than men. She questioned, then, why women,
who are of subordinate status to men in this country, received more favorable treatment
than men in the criminal justice process. These contradictions led Daly (1994) to ask the
main question of her research: Might research studies mismeasure justice?

Daly (1994) then expanded on this question. She discussed both quantitative and
qualitative research on sentencing, and pointed out flaws in both types of research. First,
she offered a brief breakdown of quantitative analyses of sentencing disparities. Daly
(1994, p. 5) argued that the data in these studies were “sparse and incomplete.” Further,
she suggested that there were other critical issues in regard to quantitative analyses of
sentencing decisions: little was known about the offense, crude measures of punishment
were utilized, and there was little information on the defendant.

She next discussed the sentencing research that employed qualitative techniques.
Legal scholars and defense advocates publicized stories on disparities brought upon
unfortunate individuals. She argued that this could mean one of two things: either the
individuals whom the stories were about were in a better position to document racial
disparity, or the individuals who wrote the stories were not constrained by the
methodology of social science. Regardless of the reason, the findings of these reports
were in stark contrast to the results of the quantitative analyses performed during the
time.
After her discussion of quantitative and qualitative sentencing analyses, Daly (1994, p. 5) stated that, “neither individual stories nor statistical aggregates alone offer a meaningful measure of justice.” Turning to her quantitative analyses, Daly (1994) argued that social scientists omit both moral and political questions in regard to punishment. Specifically, and to the heart of Daly’s (1994) research, quantitative analyses did not allow a researcher to question why this punishment was meted out. Daly (1994) then referred to a case study she outlined earlier in the book. Kate (female) and Casey (male) each committed a similar crime (first-degree robbery), but Kate was sentenced to two years in prison while Casey received ten. With these stories in mind Daly argued that quantitative methods did not allow a researcher to ask if the crimes were sufficiently different to warrant a different response, if the judge applied different theories of punishment, and if this eight year sentencing gap is a miscarriage of justice.

Daly (1994) was no less critical of the qualitative analyses of the time. She attacked the methods employed in this line of research, suggesting that a conclusion was first reached and then supported with select examples. Further, no material was presented on either how the cases were selected or how typical they were. Rather, a celebrated case was chosen just to highlight the perceived racism of the criminal justice system. Daly (1994) did point out, however, that case studies could be a powerful tool in sentencing research. They bring both depth and complexity to the issue at hand. If selected and analyzed properly case studies, along with quantitative analyses, could be an important form of data for explaining sentencing decisions.

Her next step was an expansion of her discussion on the failures of quantification by describing in detail why quantification failed when statistical comparisons of gender
disparities were undertaken. Specifically, Daly (1994) pointed out that statistical protocols and theories were derived from male samples. With this being the case the “sex variable,” as Daly (1994, p. 6) called it, was introduced into analyses without several considerations first being made, including how gender relations shaped the variability found in lawbreaking, the role it played in a judge analyzing the seriousness of both the current offense and past offenses, and in its impact on extralegal variables such as family, work, and community ties. She further argued that, while researchers may have suggested they were holding constant certain variables (such as legal severity and type of offense charged), in reality it was not certain that the quality of the lawbreaking of men and women was held constant. The problem that arose, then, was that if these measures were not adequately controlled for, a sex effect may be found, but the researcher may not know how to interpret the finding.

Daly (1994) proceeded to offer an example of the problems with quantification by providing an example from her current work. Daly (1994) referred back to the cases of Casey and Kate. In these examples, Kate was sentenced to two years in prison while Casey received ten. Both Kate and Casey were convicted of first-degree robbery, and both had similar prior records. Quantitatively, then, statistics would suggest that, in this instance, there was a sex disparity in a sentencing decision, with a male receiving a harsher sentence than a female with both the offense severity and prior record being held constant. The qualitative analyses carried out by Daly (1994), however, offered an explanation for why this disparity in the prison sentence could have occurred. Daly found that the victim in Kate’s case was not injured, Kate’s accomplice was the one who was armed, and the victim was looking for a prostitute and therefore not completely innocent.
Casey’s victim, however, received both physical and psychological damage. Therefore quantitative analyses alone do not allow a researcher to have a full grasp of the aggravating and mitigating factors of the crimes committed between two similarly situated offenders that may lead to a more severe sentence for one of those offenders. Daly (1994, p. 7) concluded this section by stating, “The content and context of an offense, its perceived seriousness to victims and court officials, and the relation of a defendant’s prior record to the current offense are not well captured by quantification.”

Finally, Daly (1994) concluded with a brief discussion on policy implications for the current method of sex disparity research. She claimed policymakers may examine sentencing rates and learn that women are punished less severely than men. This, in turn, may lead policymakers to initiate policy that would punish females more severely than at the current time. This led Daly (1994) to highlight two problems. First, as previously articulated upon, the crimes men and women commit may be similar quantitatively but be drastically different qualitatively. Without an adequate measure of the current offense, it is impossible to tell if women really were being punished less harshly for like crimes. Second, sentencing techniques were already established that started sentencing women for longer terms. California adopted a method that averaged the sentences of men and women and started sentencing based on that average – inevitably leading to an increase in sentence length for women. In addition to increasing the length of sentence imposed on women, Daly (1994) also asks why males are used as the standard. Why can we not lessen the punishment of individuals to sentences that women receive? This is one area that Daly (1994) explored further in this work.
The purpose of Daly’s (1994) work, then, was to offer a more detailed analysis of gender disparities in sentencing. Daly (1994) deftly pointed out that both quantitative and qualitative techniques had serious flaws that at the time had yet to be addressed. Quantitative analyses did not allow a researcher to have a detailed understanding of the crime, while qualitative analyses utilized one sensationalized example to highlight their conclusion while at the same time allowing the researcher to be unconstrained of the rigors of social science. In addition, policymakers had analyzed this incomplete and flawed data and implemented policies that were punishing women more severely. Therefore, Daly (1994) created a multimethod approach to examine sex-based sentencing disparities. The methodology employed by Daly (1994) to conduct this research is the focus of the next section.

**Methodology.**

Daly (1994) modeled her methodology on research conducted by The Vera Institute (1977) entitled, *Felony Arrests: Their Prosecution and Disposition in New York City’s Courts*. The purpose of this report was to examine the way felony arrests were handled in New York City criminal courts. Specifically, the researchers wanted to examine the deterioration that takes place as they make their way toward disposition and more specifically, why this occurred. More importantly for Daly (1994) however was how this research was conducted. The researchers first gathered and analyzed court records for approximately 2,000 felony cases to create the wide sample. The purpose of this sample was to identify the layers at which the deterioration of charges occurs and to quantify this deterioration. The researchers then created their deep sample, which consisted of interviews with police officers, prosecutors, defense attorneys, and judges.
These interviews were conducted to glean a better understanding of the reasons behind dispositions. This sample allowed the researchers to obtain a closer look at the material in the layers of deterioration.

Daly (1994) employed a similar methodology for her research on gendered sentencing disparities. The data were collected over a five year period (because of various setbacks in the research). As with the research conducted by The Vera Institute (1977), Daly (1994) created both a wide and deep sample to better gauge sex-based sentencing disparities. A detailed description of the wide and deep samples follows.

**Wide sample.**

Daly (1994) first created her wide sample, compiling the data during the summer of 1986. Unlike current sentencing data (which in some states, like Pennsylvania, can be bought from the state Sentencing Commission), Daly (1994) and her research assistants had to obtain the data from docket books. Daly (1994) included all felony offenders from July 1, 1981 to July 1, 1986 (July 1, 1981 was chosen because arrests after this date were subject to flat sentencing). In all, two dozen docket books had to be analyzed and the data entered into computers. The data obtained from the docket book included the defendant’s name, place of birth, the legal charges the offender was arraigned for and when the arraignment took place, the date of the plea and the charges the offender pled guilty to, the sentencing decision, the amount of bail if set, the name of the defendant’s attorney, the pretrial motions and decisions of the judge.

Daly (1994) and her research assistants first coded all the women’s cases that fell in the time period established above. During this five-year period a total of 189 women’s
cases ended in conviction. They then analyzed the men’s cases, finding that, in the same time period, a total of 1,854 male cases were disposed of by conviction. Because of the great disparity, the research team went through the dockets again and selected every ninth male case, which led to a male sample of 208 and a total sample of 397.

The variables were created directly from the docket sheet, or in some instances new variables were created from the existing data from the docket sheet. As an example, a set of measures were created to determine the seriousness of the case. Several measures were used to gauge severity at both arraignment and conviction. One measure, labeled severity (which measured potential incarceration time for the offense the offender was convicted), was the maximum number of months the offender could be convicted for in regard to that specific crime. The other measure of seriousness included the amount of charges an individual had at arraignment and then at conviction. Finally, it should be noted that the clerk of the court kept no official records of defendants acquitted at trial so cases of this nature were not included in the sample.

**Deep sample.**

After Daly (1994) created her wide sample she utilized these offenders to compose her deep sample. To create this sample she first conducted quantitative analyses to examine various statistical differences. Specifically for the deep sample, she concluded that there were seven offenses that allowed for gender comparisons: homicide, risk of injury (defined as any harm to minors), assault, arson, robbery, larceny, and drugs. She also found that gendered variation held across both racial and ethnic groups and that plea bargaining was both consistent and predictable.
Once Daly (1994) decided on the offenses to study, she began to create her deep sample. Before creating it, she outlined two considerations that she would meet. First, she wanted the deep sample offenses to correspond roughly to their proportions in the wide sample. For example, the three offenses committed most often in the wide sample were drug offenses (97), robbery (72), and assault (59). These three crimes each received 16 deep sample cases (eight females and eight males for each crime). On the other hand, arson (19) was the crime committed least often, and its total cases in the deep sample were four. The second consideration was of the upmost importance: she had to comprise like cases of men and women. To do this she first selected men and women whose charges were the same at both arraignment and conviction. She then devised a “selection-decision protocol” (Daly, 1994, p. 22).

The four pieces of information Daly (1994) compared were prior record, age, race/ethnicity, and pretrial release status. To select a case she first matched a male and female with identical statutory charges. Once this criterion was met she then matched defendants who had similar prior records (or no prior record). After pairing on both charges and prior record, Daly (1994) then chose two who were closest in age. Finally, defendants with similar pretrial release statuses were matched. It is vitally important to note that throughout the matching process she had no knowledge of the sentence that any of the defendants received.

Once Daly’s (1994) deep sample was finalized she turned her attention to obtaining two documents: transcripts from the individuals’ day in court and presentence investigation reports (PSIs) for each defendant in the deep sample. She first attempted to acquire the trial transcripts. These reports were obtained by contacting the office of the
court reporter and asking permission to examine them. Permission was granted, but Daly (1994) was also faced with a problem: thirty of the eighty transcripts could not be transcribed. The court reporter who wrote the transcripts did so in shorthand that was no longer well known (Pittman shorthand) and the transcriber no longer wanted to work for the court, or transcribe them for her. Daly (1994) tried over a year to find a specialist who could assist her. Once she did, the individual could not read the handwriting of the transcripts, and Daly (1994) lost thirty of these reports. However, she argues that the fifty that she did possess allowed her to paint an accurate description of the offenses and defendants adjudicated in the New Haven court. It also offered her an accurate portrayal of the sentencing judge, which allowed her to understand the punishment philosophy of the judge, and if he or she showed any differences when sentencing males and females.

The next piece of information gathered by Daly (1994) was the PSI reports. To obtain these documents, Daly (1994) contacted the Judicial Department. They allowed her to examine them with the condition that she was not allowed to make photocopies of any of the documents. The PSI reports were very important for the research conducted by Daly (1994), as they allowed her to learn more about the offense, the social history of the defendant, and the defendant’s prior record. In addition, she claimed they became even more useful in the absence of thirty of the courtroom transcripts.

Once the court transcripts and PSI reports were collected, Daly (1994) began to analyze the data. The PSIs allowed Daly (1994) to write a biography for each defendant from the information contained in the file. In addition, she coded each file, including variables such as defendant experiences while growing up, employment data, education, current family situation, prior arrests and convictions, and any drug or alcohol abuse.
Third, she created a crime narrative using both the PSI report and any pertinent remarks found in the court transcripts. Fourth, again using both the PSIs and transcripts, Daly (1994) described the defendant’s behavior using remarks found within the reports from the defendants themselves, family members, probation officers, judges, prosecutors, and defense attorneys (all from the court transcripts) and all the remarks made in the PSI report. Finally, Daly (1994) more closely analyzed the remarks made at sentencing, focusing on how they were organized, what was said, and determining what theory of punishment was used.

It should be noted that, even with a sentencing study of this depth, it was not without limitations, and Daly (1994) offers a discussion of them. She highlighted three areas she wished could have been improved. First, she argued that some of the variables constructed were not the most favorable (although she does not specify which). In addition, subgroup analyses (such as an analysis of Latin defendants) were too small. Second, she suggested that PSI reports still could have been inaccurate. Specifically, any and all interviews are sieved through a probation officer, which could have inevitably led to misinterpretation. Third, and finally, the sentencing reports only represented the “public face of justice” (Daly, 1994, p. 285). They did not encapsulate what was said behind closed doors.

However, while there were weaknesses to the research, it was also a much more in-depth examination of sentencing disparities and punishment philosophies than was normally conducted in social science research. Daly (1994) would have had to observe a courtroom every day for five years to create the data gleaned from court transcripts without utilizing the data collected. Further, while PSI reports may not have been
completely accurate, they were what the court used when deciding proper punishment. In essence, then, they were a perfect source of data for a study on sentencing.

**Findings.**

To analyze the data, Daly (1994) conducted both quantitative and qualitative measures. While the focus of her work was on gendered disparities in sentencing, and therefore the findings not pertinent to the current research, she also examined the impact of race on sentencing both quantitatively and qualitatively. It is important to briefly summarize these findings, as they add to the argument of why the current research is necessary.

Daly (1994) first conducted her quantitative analyses, examining both the in/out decision and the length of sentence imposed. She analyzed these dependent variables via multivariate analyses, adding control groups to examine their impact on the variables. These control variables included the statutory severity of the convicted offense, prior record, offense at conviction, type of attorney, presiding judge, and whether the defendant was incarcerated during the pretrial period.

She first examined the in/out decision. While her focus is on the gender gap of the in/out decision, she briefly mentions the race gap. In a bivariate analysis – before the controls were introduced – Daly (1994) found that there was a 21% race gap in the likelihood of incarceration. In other words, blacks were 21% more likely to be incarcerated than whites. Daly (1994) then created three more equations, adding control variables to each one. In equation two offense severity, prior record, black, and Latin were included. With these controls blacks were still 20% more likely to be incarcerated.
Next the types of offense were added (violence, robbery, and drugs), and blacks were still 19% more likely to be incarcerated. Finally, the rest of the controls were added to the equation, and blacks were still 11% more likely to be incarcerated than their white counterparts, suggesting a race disparity in regard to the in/out decision.

Daly (1994) then turned her attention to the length of sentence imposed on an offender. Again, she mainly focuses on gender, but does report on the impact of race on length of sentence. The first equation, with no controls, found that blacks actually received a sentence length of 2.9 months shorter than their white counterparts. She then examined the same three equations as described above. Equation two saw blacks receive a sentence length 3.5 months longer than whites. Equation three reported a sentence length 1.7 months longer for blacks than whites, and equation three a sentence length 0.2 months longer for blacks than whites. However, these findings were not significant. Daly (1994) concludes that, quantitatively, blacks were more likely to be incarcerated than whites, but of those who were incarcerated, they were not facing longer sentences at a statistically significant level.

Daly (1994) then conducted her qualitative analyses. Like the quantitative analyses, her focus was primarily on the gendered disparities of sentencing. However, she did briefly discuss the impact of race on sentencing, and her findings were quite striking. Daly (1994, p. 263) stated that, “black men stood out as forming the defendant group most at risk to receive the heaviest penalties.” She went on to state that, “their biographies were least likely to be constructed with the blurred boundaries theme of victimization and criminalization, they were most likely to be categorized as troublemakers or committed to street life, and they were least likely to be seen as
reformable” (Daly, 1994, p. 263). However, because her work focused on gender, a more in-depth examination of these results could not be conducted.

**Concluding remarks.**

Daly (1994) undertook one of the more in-depth and rigorous studies ever conducted on sentencing. Utilizing both quantitative and qualitative techniques, she meticulously examined the role gender played in sentencing decisions. While the focus of her work was on gender, she also came to some startling conclusions on race. At the quantitative level, she found that blacks are more likely to be incarcerated. Qualitatively, she found that blacks were the most likely group to receive the heaviest penalties.

Unfortunately, no scholar has tried to replicate this study to more deeply analyze this race result at the adult offender level. This is what the current research will attempt to accomplish. Utilizing the techniques employed by Daly (1994), the current research will examine both quantitatively and qualitatively, the impact race has on sentencing decisions in Allegheny County. As with Daly’s (1994) work, the impact of race on both the in/out decision and length of sentence will be examined. Qualitatively, PSI reports will be analyzed to examine if like crimes defined quantitatively have qualitative differences. A more detailed discussion of the methodology follows, highlighting the research plan for the current study.
Chapter III

Methodology

Introduction

The current research called for a multimethod approach to studying sentencing decisions. It expanded on Daly’s (1994) work by incorporating her methods to an examination of racial differences in sentencing. Further, it expanded on current sentencing literature by offering a qualitative assessment of quantitatively defined like crimes. While this approach had been utilized by past researchers, it was often an overlooked method of analysis. The hope of the current research was to offer a deeper understanding of the role race/ethnicity played in sentencing decisions.

This chapter will describe in detail the methodology that was employed in the current study. Specifically, it will first offer a discussion of the current study, highlighting the research questions, the importance of the research, and the hypotheses to be tested, followed by a description of the sample. As with Daly (1994), this study consisted of a wide and deep sample. The wide sample was used for the quantitative analysis and from it the deep sample was constructed. The deep sample consisted of sixty total offenders – thirty white and black – so that a comparison of each could be made. This chapter will first present the research questions and hypotheses. Followed will be a discussion of the sample, an overview of the variables being analyzed in the current study, a discussion of the statistics used to analyze the wide sample, and the qualitative techniques employed for the deep sample.
**Current Study**

This section outlines the research questions of the current study. Followed will be a detailed discussion of why this research endeavor is important. As previously mentioned, most of the sentencing literature has failed to incorporate any qualitative analysis into its examination of sentencing disparities. Analyzing both PSIs and court transcripts will allow for a deeper examination of the sentencing process. Finally, the hypotheses for the current research will be presented.

**Importance of the current study and research questions.**

As highlighted by the literature, racial disparities still exist in both sentencing decisions. While more pronounced in the in/out decision, race plays a role in the length of sentenced imposed as well. Further, the role of race does not always have a direct influence on the sentencing decision. Rather, it can interact with age (Spohn & Holleran, 2000; Steffensmeier et al., 1998), sex (Spohn & Holleran, 2000; Steffensmeier et al., 1998), employment status (Spohn & Holleran, 2000), and type of crime (Demuth & Steffensmeier, 2004; Steffensmeier & Demuth, 2001) to negatively impact sentencing decisions.

The vast majority of sentencing research uses only quantitative analyses. So while the data does overwhelmingly suggest that race plays a role, it often cannot truly answer why. Further, it cannot qualitatively discern if there are any extenuating circumstances that lead to these more severe sentences. As Brewer and Hunter (2006) and Kolbe and Burnett (1991) suggest, there are often inherent biases in using only one method that can be corrected by employing multiple techniques. One of the interesting findings of Daly’s
(1994) work was that many of the quantitatively defined “like” crimes were not very similar. Males often used more force, caused more harm, and used deadlier weapons than their female counterparts. This led to many of the sex disparities seen in the quantitative analyses. Daly (1994) also concluded that black defendants were punished the most severely. The importance of this research, then, was to examine if this finding holds true with Pennsylvania sentencing data. Specifically, the current research wanted to answer the following questions:

1. Do black offenders face greater odds of receiving a prison, jail, or intermediate sanctions sentence over probation than white offenders?
2. Do black offenders receive longer sentences than white offenders?
3. Does a qualitative assessment of police reports suggest that “like” crimes are not always the same? If differences are found, do they help explain the differences that may be witnessed in the quantitative analyses?

In summation, the purpose of this study was to conduct a more detailed, multimethod examination in Allegheny County with particular attention being paid to the race of the convicted felon. By first highlighting what, if any, disparities exist through quantitative analyses and exploring the sentencing decision more fully in a qualitative analysis, I hoped to offer a more complete picture of sentencing. Of importance to this research is if race will be a factor in sentencing decisions.

**Hypotheses.**

As highlighted in the literature review, there is a plethora of research that suggested that black offenders are treated more harshly at both stages of sentencing than
white offenders. Focusing on the in/out decision, many researchers have concluded that black offenders do face a greater odds of incarceration than white offenders (see: Demuth & Steffensmeier, 2004; Spohn, 2000; Spohn & Holleran, 2000; Steffensmeier & Britt, 2001; Steffensmeier et al., 1998). Further, researchers have found that the effect of race on sentencing still exists when the in/out decision is trichotomized (see: Brennan & Spohn, 2008; Freiburger & Hilinski, 2009; Frenzel, 2005; Holleran & Spohn, 2004). In sum, most research does suggest that race does significantly influence sentencing outcomes. These findings form the basis for Hypothesis 1:

\[ H_1: \text{Race will significantly influence sentencing outcomes.} \]

\[ H_{1a}: \text{Black offenders will be more likely to receive a jail sentence, prison sentence, or intermediate sanctions over probation compared to white offenders.} \]

As with research on the sentencing outcome decision, prior research has also suggested that race plays a significant role on the length of sentence imposed on an offender. All of the studies that reported significant findings found that black offenders were sentenced more harshly than their white counterparts (see: Albonetti, 1991; Steffensmeier & Britt, 2001; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1998; Ulmer & Johnson, 2004). These findings formulate Hypothesis 2:

\[ H_2: \text{Race will significantly influence the length of sentence imposed on the offender.} \]

\[ H_{2a}: \text{Black offenders will receive longer sentences, in months, than white offenders.} \]
Finally, current research has focused on interactive effects in sentencing decisions at both stages of the sentencing process. Research has concluded that young black males face the greatest odds of incarceration (Spohn & Holleran, 2000; Steffensmeier et al., 1998) and receive the longest prison sentences (Spohn, 2009; Steffensmeier et al., 1998). As highlighted in Hypothesis 3, the researcher predicts that these findings will hold true in the current study:

\[ H_3: \text{The interaction between age, sex, and race will significantly influence type of sentencing outcome and length of sentence.} \]

\[ H_{3a}: \text{Young black males will be the group that is most likely to receive a jail sentence over probation and a prison sentence over probation.} \]

\[ H_{3b}: \text{Young black males will receive the longest sentences in months compared to any other race/age/sex category.} \]

**Sample**

This section will discuss, in detail, the samples that were used in the current study. The samples were taken from data collected by the Pennsylvania Commission on Sentencing (For a discussion of the history and impact of the Pennsylvania Sentencing Guidelines refer to Appendix B). The creation of the wide sample analysis will be discussed first, followed by a summary of the deep sample.

**Wide sample.**

As with the Daly’s (1994) research, the wide sample refers to the sample that was used for the portion of the research that utilized quantitative analyses. The dataset was
purchased from the Pennsylvania Commission on Sentencing, and included all relevant information. For the current study, this consisted of all convicted felons in Allegheny County for the years 2004-2006. Allegheny County was chosen because of its large population of both white and black offenders. Specifically, Allegheny County has a population exceeding one million, and as of 2010 approximately 81% of that population was white and 13% was black (U.S. Census Bureau). With the need for similarly situated offenders in the deep sample analyses, it was important to have a large population to allow for the deep sample offenders to have been paired as closely as possible.5

Deep sample.

The deep sample consisted of 54 individuals purposely selected by the researcher. Daly (1994) included forty of each sex, for a total of eighty individuals in her deep sample analysis. This study contained groups of two individuals: a white and black offender. Therefore, a total of twenty-seven offenders from each racial category will be chosen.

The offenders were paired on six different variables: age, type of offense, number of convictions for the current sentence, sex6, prior record score, and the judge who sentenced them. The only difference was the races of each individual in the pairing. When Daly (1994) created her deep sample she could not find, for every paring, offenders who were exactly the same for each paired variable. While the current research will try to do this, it is not likely that all pairs will be exactly the same. As such, the

5 Because the sentencing guidelines allow the judges much leeway in the sentencing of less severe felonies, the researcher felt that incorporating misdemeanors was not necessary.

6 Only male offenders will be used in the deep sample analysis. While an examination of race/sex interactions would be ideal, the researcher does not believe there would be enough violent offenses committed by females, thereby not allowing appropriate matching to take place.
researcher paired offenders who are as similar as possible, but the ages of the offenders were rarely exact. Sex, type of offense, number of convictions for the current sentence, prior record score, and the judge who sentenced the offenders all were exact matches.

To pair the individuals several steps were taken in SPSS. First, separate datasets were created for each judge, creating a match for all offenders based on the judge who sentenced them. Next, descriptive statistics of the type of crime were run to analyze the most common crimes in each of the three categories (drug, property, and personal). Once common crimes were identified, datasets of each were created, which now had type of offense, OGS, and judge who sentenced the offender all matched. From here females were removed, and the researcher then examined both the number of current offenses, age, and PRS to complete the matching.

Overall, this should provide a good representation of the various individuals who were sentenced in Allegheny County. The police reports should offer a better picture of the exact type of crime that was committed.

Variables

This section will present the variables for the quantitative analysis used in this study. Further, it will offer arguments why each variable is necessary to analyze. The discussion will first focus on the dependent variables. Followed will be a description of the independent variables. The measurement techniques for all will be highlighted (refer to Table 1 for the definition and measurement of each variable).
Dependent variables.

As discussed in Chapter II, sentencing is a bifurcated process. The first decision any judge must make is whether or not to incarcerate the individual. If the judge deems incarceration necessary, the next step is to impose a length of incarceration that must be served. These two decisions make up the dependent variables under analysis in the current study.
### Table 1

**Variables and Measurements**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>In/out decision</td>
<td>Four category variable consisting of intermediate sanctions, jail, prison, and probation – which will be the reference category.</td>
</tr>
<tr>
<td>Length of sentence</td>
<td>Measured in months</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>White = 0; Black = 1</td>
</tr>
<tr>
<td>Sex</td>
<td>Female = 0; Male = 1</td>
</tr>
<tr>
<td>Age</td>
<td>Measured in years</td>
</tr>
<tr>
<td>Type of offense</td>
<td>Three dummy variables: drug, property, and personal with property the reference category</td>
</tr>
<tr>
<td>Number of convictions</td>
<td>Continuous variable that measured the amount of current convictions</td>
</tr>
<tr>
<td>Offense gravity score</td>
<td>Continuous variable on a 1-14 scale</td>
</tr>
<tr>
<td>Prior record score</td>
<td>Continuous variable on a 0-7 scale</td>
</tr>
<tr>
<td>Guideline Edition&lt;sup&gt;7&lt;/sup&gt;</td>
<td>All individuals sentenced before June 3, 2005 fall under the 5&lt;sup&gt;th&lt;/sup&gt; Edition; those sentenced after fall under the 6&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

**Sentencing outcome.**

More recent research has suggested that the in/out variable should be trichotomized (Frenzel, 2005; Harrington & Spohn, 2007; Holleran & Spohn, 2004; Wang & Mears, 2010). With this in mind, the current research created four groups for the

<sup>7</sup> Starting June 3, 2005 all individuals convicted were sentenced under the 6<sup>th</sup> Edition of the Pennsylvania Sentencing Guidelines. There were five changes made, but the one pertinent to the current study was the relabeling of certain offense gravity scores.
in/out decision. The four attributes that will make up the “in/out” variable are probation, intermediate sanctions, jail, and prison.

**Length of sentence.**

The length of sentence imposed on the offender is the second half of the bifurcated sentencing process, and usually refers to the length of time an offender is sentenced to a term of incarceration. The current research used the same definition: this variable measures the amount of time, in maximum months, an offender was sentenced to either jail or prison.

**Independent Variables.**

This section highlights the independent variables under study in the current research. The independent variables examined in sentencing usually fall under two categories: legal variables (those the judge must consider in his or her sentencing decision) and extralegal variables (variables that should not play a significant role in sentencing decisions, but still do). The current research will employ this approach, studying the impact of both legal and extralegal variables on the sentencing decision.

**Race.**

Race will be comprised of white and black offenders from Allegheny County, as they are the two main racial groups in the county. There are not enough Hispanics in the offender population to include them in the study. Black defendants are included in the analysis because prior sentencing research has found that black offenders were sentenced more severely than their white counterparts (see Spohn, 2000; Steffensmeier & Demuth,
2001; Steffensmeier et al., 1998 Unnever & Hembroff, 1988). This finding holds in both in/out research and length of sentence research. The current model coded whites as 0 and blacks as 1.

*Age.*

Research has suggested that age plays a significant role in sentencing decisions, often with younger offenders being sentenced more severely than their older counterparts. As such, this is a significant independent extralegal variable and will be included in the current analysis. The variable itself will be measured as a continuous variable in years.

Several studies have examined the impact of age on the in/out decision. Works from Steffensmeier, Kramer, and Ulmer (1995) and Steffensmeier et al. (1998) report a curvilinear age effect in sentencing. In these studies, the authors grouped the ages instead of keeping it as a continuous variable. They found that offenders under 21 years of age and over 50 were treated most leniently. Punishment was most severe for offenders aged 21-29, and severity decreased all the way to the age of 50. Not all studies report this curvilinear effect, however. Spohn and Holleran (2000) found that age did significantly influence the in/out decision, and young offenders faced the greatest odds of incarceration. The overall curvilinear effect was not supported though. Examining a trichotomous in/out variable, Holleran and Spohn (2004) concluded that age significantly influenced the decision to sentence an offender to prison over probation, but it did not influence the decision to sentence an offender to jail over probation. Employing a similar trichotomous variable, Freiburger and Hilinski (2009) found that age significantly influenced the decision to sentence an offender to a prison term versus a jail term.
Finally, it should be noted that some studies do not report an age effect (see: Nobiling et al., 1998; Spohn & DeLone, 2000).

Studies have also found that age significantly influences the length of the sentence as well. The works of Steffensmeier et al. (1995) and Steffensmeier et al. (1998) both reported the same curvilinear effect of age on the length of sentence as well. Crow and Bales (2006) also reported a moderate effect of age on the length of sentence decision, with young offenders being sentenced more severely. Freiburger and Hilinski (2009) found that age only influenced the length of sentence for black males. Surprisingly, middle-aged black males were sentenced more severely than young black males. Finally, as with the in/out decision, some studies reported that age did not significantly influence the length of sentence imposed on an offender (see: Chiricos & Bales, 1991; Nobling et al., 1998; Spohn & DeLone, 2000).

In sum, the majority of research examining sentencing decisions concluded that age did have a significant effect on both the in/out decision and the length of sentence imposed. Specifically, researchers concluded that young offenders were more likely to be imprisoned, and for longer, than older offenders. Therefore, age was used as a control variable in the current study.

**Sex.**

One of the most consistent findings in all of sentencing research is that males are sentenced more severely than females. Therefore, sex will be a measured variable in the current research.
Focusing on the in/out decision, several studies have found that sex does play a significant role in the decision to incarcerate. Steffensmeier, Kramer, and Streifel (1993) found that males’ odds of imprisonment are 1.8 times higher than the odds of a female being incarcerated versus not when in/out was defined as incarceration versus not. Daly (1994) reported an even larger sex gap in the in/out decision, with men 29% more likely to be incarcerated than females, and 25% more likely to be incarcerated after all the control variables are accounted for. This finding was supported by Blackwell, Holleran, and Finn (2008), who also concluded that female offenders were less likely to be incarcerated in both jail and prison than males. Spohn and Holleran (2000) also reported significant differences in the in/out decision. Males in both Chicago and Kansas City faced greater odds of incarceration than females (no significant results were found in Miami). Frenzel (2005) continued this line of research, utilizing a trichotomous measure of in/out. She found that males were more likely than females to be incarcerated in the total incarceration model. However, when the trichotomous measure was analyzed, males were more likely than females to be sentenced to jail than probation, but there were no differences in prison versus probation.

Several studies suggest sex plays a role in the length of sentence decision as well. Daly (1994) reported that males received prison terms that were 13.3 months longer than their female counterparts. Daly and Bordt (1995) reported a favorable “sex effect” for female offenders in both older and more recent data and Daly and Tonry (1997) also reported a significant sex gap in sentence length (18 months) in their comprehensive review of sentencing data between 1986 and 1990. Rodriguez, Curry, and Lee (2006) found, in a random sample of Texas offenders, that females were sentenced, on average,
to a term of incarceration that was approximately three years less than male offenders. Interestingly, when examining violent offenses, female sentences were on average four years shorter than violent male offenders. Blackwell et al. (2008) also reported shorter sentence lengths for female offenders, while Freiburger and Hilinski (2009) reported a significant difference in the jail sentence length meted out to female and male defendants. This difference was small, however, with males receiving a term that was one month longer than females.

Overall, the literature did suggest that females were more likely to receive favorable sentences than their male counterparts. It should be noted that some studies have found that this favoritism was less likely in the length of sentence results (see Spohn & DeLone, 2000; Steffensmeier et al., 1993 for results that report no sex differences), but in general the research suggested that sex was a significant variable and one that should be incorporated into any sentencing study. As such, sex acted as a control variable in the quantitative analyses of the current research, with females coded as 0 and males as 1.

Type of offense.

Several sentencing studies have found that sentencing disparities are more pronounced for specific types of offenses. Generally, studies reported that those convicted of violent offenses were sentenced more severely than offenders who were convicted of either drug or property crimes (Everett & Wojtkiewicz, 2002; Freiburger & Hilinski, 2009; Harrington & Spohn, 2007; Myers & Talarico, 1986) and that offenders were often punished more severely for drug crimes than property crimes (Holleran & Spohn, 2004; Steffensmeier & Britt, 2001). More specifically, researchers have
concluded Hispanics are sentenced more severely for drug crimes than either blacks or whites, highlighting interaction effects between race/ethnicity and the type of offense (Demuth & Steffensmeier, 2004). Further, according to the liberation hypothesis, judges have more leeway when sentencing an offender for a minor offense (Spohn & Cederblom, 1991). It is therefore important to analyze more closely the type of offense.

To analyze this variable, three dummy variables will be created: personal, property, and drug. Property will be the reference variable, with drug and personal offenses compared to it, and thus left out of the model. Hardy (1993) states that three items must be taken into account when selecting a reference group: the group must be well defined, it must be either an endpoint or the midrange grouping, and it must contain a large number of cases. In this instance, property is well defined, many of the property crimes fall at the midpoint (in terms of severity) between drug and personal offenses, and many property offenses have been committed in Allegheny County.

Examining the groupings, personal crimes are any crimes that are committed against an individual. This includes robbery, rape, assault, murder, and the like. The property group, on the other hand, will consist of crimes committed against property, such as burglary, vandalism, arson (with no victims), and so forth. Finally, drug crimes are any crimes dealing with drugs, either selling or possession. As highlighted, accounting for this variable, in both the additive and interactive models, should shed light on what judges take into account when meting out sentences.
Offense gravity score.

Several studies have suggested that the offense gravity score, along with the prior record score, is the most important variable in the sentencing decision. The 6th Edition of the sentencing guidelines (A discussion of the history of the guidelines can be found in Appendix B) possesses a range for the offense gravity score (OGS) of 1-14, with one being the least serious offense, and 14 being the highest score an offender can receive. There are several important elements to the OGS that must be mentioned. First, the sentencing guidelines only assign scores to misdemeanor and felony offenses. As such, all summary offenses and murder of the first and second degree do not receive scores. Further, the OGS is only given to the convicted offenses, not the charged offenses, and all offenses have one correct score, but these can increase if a firearm is used or if bodily harm was inflicted on the victim. For example, robbery of a motor vehicle will always be scored a 9. If a person was injured during the robbery the OGS increases to a 12 (Pennsylvania Commission on Sentencing, 2005). Therefore, to assign a score the judge just merely applies the designated number that corresponds to the offense committed to the guideline matrix.

Increases in the severity of the offense increase both the odds of a prison sentence and the amount of time imposed on an offender (Brennan & Spohn, 2008; Demuth & Steffensmeier, 2004; Freiburger & Hilinski, 2009; Holleran & Spohn, 2004; Harrington & Spohn, 2007; Nobiling et al., 1998; Spohn & DeLone, 2000; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1993; Steffensmeier et al., 1998). Therefore, as with the prior record score, the Pennsylvania Sentencing Guidelines’ measure of the severity of the current offense was incorporated and its impact measured in the current study.
**Prior record score.**

Unlike OGS, which is determined by applying a number to the offense committed, the prior record score (PRS) must be calculated for each individual. The score is determined on both the type and number of prior convictions, and prior juvenile adjudications. An offender can fall under eight prior record categories: repeat violent offender (REVOC), repeat felony one or felony two offender (RFEL), and point-based categories that range from 0-5.

To fall under the REVOC category, an offender must have two or more previous convictions or adjudications for four point offenses. Further, the current conviction must fall under an OGS category of 9 or higher. To fall under the RFEL category, an offender must have previous offenses or adjudications for either felony one or two crimes which total to six or more in the prior record, but do not fall within the REVOC category (Pennsylvania Commission on Sentencing, 2005).

If the offender does not fit into either of the above two categories, then they are assigned a PRS score that ranges from 0-5. This score will encompass both the number of prior records and the severity of each offense. Some prior juvenile adjudications will also be incorporated (unless they were committed before the age of fourteen). To compute the prior record score, all prior felony convictions are one point. From there, points can be added based on the severity of that prior offense. For example, if an offenders’ prior offense was murder, four points will be added to the PRS, resulting in a PRS score of 5, the highest an offender can receive. At the other end of the spectrum, one point will be added for all felonies not listed in the 2-4 point categories. One misdemeanor is scored a zero for PRS. Seven or more misdemeanors result in a PRS of 3.
The vast majority of prior sentencing research has reported that prior record score is one of the most important predictors of both the in/out decision and the length of sentence imposed on an offender. Spohn and Welch (1987), in an examination of various measures of the prior record score and found the prior record as measured by prior incarceration consistently had a strong impact on both the in/out decision and the severity of the sentence. Several other studies also reported that prior record (along with offense gravity) accounted for the bulk of the explained variation in both the length of the sentence imposed and the seriousness of the sentence, with increases in prior record increasing the odds of incarceration and the length of the sentence (Brennan & Spohn, 2008; Chiricos & Bales, 1991; Demuth & Steffensmeier, 2004; Freiburger & Hilinski, 2009; Holleran & Spohn, 2004; Harrington & Spohn, 2007; Nobiling et al., 1998; Spohn & DeLone, 2000; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1993; Steffensmeier et al., 1998). For the current study, the prior record score was from 0-7. Zero through 5 will carry the same definition as in the sentencing guidelines. RFEL was recoded as 6 and REVOC was recoded as 7.

**Interaction effects.**

As previously discussed, researchers have also examined the impact of the interaction of variables on the two sentencing decisions. They have concluded that disparities in both the in/out decision and the length of sentence imposed on an offender can be explained through these various interactions. For example, Steffensmeier et al. (1998) concluded that young black males face both a greater odds of imprisonment and a longer length of sentence imposed than any other age/race/sex combination studied by the
authors. Spohn and Holleran (2000) continued this line of research, and concluded that young, unemployed, black and Hispanic males face the greatest odds of imprisonment.

In addition to the age/race/ethnicity/employment status/sex combinations, several other studies have concluded other interactions have influenced length of sentence decisions as well. For example, Spohn et al. (1981-1982) concluded that race interacted with offense severity, prior record, pretrial release, and type of attorney, and all interactions led to more serious sentences for black offenders. Other studies concluded that blacks who were single (Miethe & Moore, 1986), lived in urban communities (Miethe & Moore, 1986), pled guilty (Albonetti, 1991), were unemployed (Nobiling et al., 1998; Spohn & Holleran, 2000), and committed similar crimes as whites (Spohn & DeLone, 2000) were all sentenced more severely than their white counterparts.

These studies suggest, then, that interactive effects need to be analyzed in all sentencing research that aims to analyze sentencing disparities. However, for the current research age/race/sex combinations could not be made. Several of the combinations (for example middle-aged white female) did not comprise 15% of the female population. This percentage is required to accurately analyze logistic regression. As such, two subsamples were created: an all black sample and an all white sample. These allowed the researcher to examine how the various variables interacted with white and black offenders.

**Research Design**

**Wide sample analysis.**

The analysis of the wide sample employed two statistical analyses to examine the impact of the variables on the sentencing decision. As mentioned, sentencing is a
bifurcated process, with both the decision to incarcerate and the length of sentence imposed on those incarcerated analyzed. Because the dependent variables were measured differently, an analysis of each using the same technique would have been inappropriate. Therefore, the impact of the variables on the in/out decision was analyzed using multinominal logistic regression, while influence of the variables on the length of sentence imposed on an offender was measured with ordinary least squares (OLS) regression.

Measuring the in/out decision.

As previously discussed, current research has suggested that it is more appropriate to measure the in/out decision with a trichotomous measure of whether the individual was placed on probation, sentenced to jail, or sentenced to prison (Frenzel, 2005; Harrington & Spohn, 2007; Holleran & Spohn, 2004; Wang & Mears, 2010). The current research hoped to expand on this line of research by examining a quadratic variable. Because of this, logistic regression could not be used because it is only an appropriate technique when the dependent variable is dichotomous (DeMaris, 1995; Peng, Lee, & Ingersoll, 2002). A different type of logistic regression – ordered – is the proper statistical analysis to run when the dependent variable contains three or more categories.

Ordered logistic regression is used when the dependent variable is not continuous, but may possess a rank order of the variables attributes (Liao, 1994; O’Connell, 2006). The equation for ordered logistic regression is as follows: \( y_i^* = \alpha + \beta x_i + e_i \) (Long, 1997, p. 117). It could be argued that probation, intermediate sanctions, jail, and prison can be rank ordered from the least serious form of punishment (probation) to the most serious form of punishment (prison). However, to verify that this was the case, a test of the
parallel slopes must first be run. If this test is passed, ordinal is the appropriate statistical technique. If the parallel slopes test fails, multinomial logistic regression is the appropriate statistical technique (Kwak & Clayton-Matthews, 2002). The multinomial logistic regression equation is as follows:

\[ \Pr(y_i = m | x_i) = \frac{\exp(x_i\beta_m)}{\sum_{j=1}^J \exp(x_i\beta_j)} \] (Long, 1997, p. 153).

In sum, because the in/out variable contains four categories, binary logistic regression cannot be run. A different version of logistic regression is appropriate for a four category dependent variable. Ordered logistic regression will first be run because an examination of the parallel slopes test may conclude that probation, intermediate sanctions, jail, and prison are ordinal. However, if the parallel slopes test fails, multinomial logistic regression will be the correct statistical analysis to use to examine the effects of the independent variables on the in/out decision.

**Measuring the length of sentence decision.**

The measure employed for length of sentence in the current study was the maximum number of months the offender was sentenced to prison, making this dependent variable continuous. As such, the appropriate statistical technique to analyze the impact of the legal and extralegal variables on length of sentence was OLS regression.

Specifically, OLS regression was run to examine the impact of multiple independent variables on length of sentence. Lewis-Beck (1980) offers two reasons why multiple regression is the more appropriate way to analyze data. First, it offers a more complete definition of the dependent variable, as few, if any, dependent variables are
products of one single cause. Second, the effect of an independent variable on a dependent variable becomes more certain, because it removes “distorting influences” from the other independent variables (Lewis-Beck, 1980, p. 47). In addition, OLS regression is the appropriate method of analysis for the current study because the dependent variable was continuous (Bachman & Paternoster, 2004; Schroeder, Sjoquist, & Stephan, 1986). The equation for OLS regression is as follows:

$$Y = a_0 + b_1X_1 \ldots + b_kX_k + e$$ (Lewis-Beck, 1980, p. 48).

In sum, OLS regression will be employed to examine the effects that both the legal and extralegal variables had on the length of sentence imposed on an offender. Because length of sentence was a continuous dependent variable, OLS regression was the appropriate method of statistical analysis to employ. This allowed for an examination of what variables influenced this decision, along with how much they influenced the decision.

**Deep sample analysis**

As previously discussed, the deep sample was comprised of sixty convicted male felons from Allegheny County purposely selected by the researcher. The sample contained twenty-seven white and black offenders who were matched on age, type of offense, prior record score, number of convictions, and the judge\(^8\) who convicted them.

---

\(^8\) An important aspect of the deep sample analysis is to consider which judge did the sentencing for each group of offenders to make sure that the disparities that may exist cannot be explained by the introduction of a different judge. The data received from the Pennsylvania Commission on Sentencing provides the name of the judge who sentenced each offender. A total of 22 judges comprised the 2004-2006 dataset, three female and nineteen male.
Once the sample was selected, the police report contained in the offender’s official record was analyzed. The following will discuss in detail what was examined in each report.

Bridges and Steen (1998) examined the impact of race on sentencing at the juvenile level utilizing a similar method to Daly’s (1994). The authors analyzed probation officers reports of juvenile offenders, as these were often used by judges in their determination of how to punish the youth. Bridges and Steen (1998) found that the probation officers’ views of white and black youth varied drastically. Further, they concluded that officers were more likely to blame a white youth’s involvement in crime on external forces, while black youth’s crimes were found to be caused from internal forces. Judges were more lenient if they felt that external forces led to criminal involvement, and therefore white youth were sentenced more leniently. The aim of the current research, then, is to examine and expand upon the findings of Daly (1994) by examining the role race plays at the adult level, and the work of Bridges and Steen (1998), examining if blacks are treated differently in probationary reports.

Specifically, a content analysis will be conducted. There are various forms of content analyses, but in general it is a flexible tool for the measure of text data (Cavanagh, 1997). Further, content analysis focuses on the characteristics of language, with close attention paid to the content or contextual meaning of the text under analysis (Budd, Thorp, & Donohew, 1967; McTavish & Pirro, 1990). The form that is chosen depends on both the theoretical interests of the researcher and the problem under study and goes beyond the mere counting of words to an in-depth examination of language to discern categories within that text that represent similar meanings (Weber, 1990). Down-Wamboldt (1992, p. 314) summarizes content analysis by stating that the goal is to,
“provide knowledge and understanding of the phenomenon under study.” For this study, the phenomenon under study is hypothesized sentencing disparities in Allegheny County, and content analyses of police reports was undertaken to glean more knowledge on why this occurs. More specifically, the police reports were a tool to assess whether quantitatively defined like crimes were qualitatively similar. If they were not, and disparities in sentencing between the two offenders existed, rudimentary conclusions could have been made about the role race played in the sentencing decision.

**Interrater reliability.**

Rourke, Anderson, Garrison, and Archer (2007) suggest that the analysis and interpretation of latent content is both subjective and interpretive. As such, reliability will be a concern for this project. Carmines and Zeller (1979, p. 11) define reliability as, “the extent to which an experiment, test, or any measuring procedure yields the same results on repeated trials.” Warren and Karner (2005, p. 217) state that a question often asked when measuring the reliability of a qualitative study is, “would any qualitative sociologist examining the texts or images that constitute the data develop (roughly) the same analytic description?” Specific to the current study, interrater reliability was employed to examine the reliability of the researchers’ determination of which like crime, if any, was more serious. LeBreton & Senter (2008, p. 816) define interrater reliability as, “the relative consistency in ratings provided by multiple judges of multiple targets” (see also Kozlowski & Hattrup, 1992; LeBreton, Burgess, Kaiser, Atchley, & James, 2003). Therefore, a second, independent observer analyzed the police reports as well. A comparison of these two separate categorizations followed. The compliance between the two should have been no less than 80% (Carmines & Zeller, 1979).
In sum, a test of interrater reliability was incorporated into the project to examine if the researcher and the tester concluded similar results in the analysis of police reports. The compliance between the researcher and the second reader should have been no less than 80% (Carmines & Zeller, 1979).

**Police reports.**

Daly (1994) analyzed the PSI reports to glean a better understanding of each offense. She argued that, by utilizing quantitative analyses only, these studies assumed that offense severity was controlled for. However, scholars have rightly pointed out that, in regard to sex, females may have committed fewer serious crimes in the broad offense categories (Daly, 1994; Steffensmeier, 1980), a claim supported by court officials (Daly, 1987; Daly, 1989). Therefore, she argued that offense seriousness may not be adequately controlled for in these studies. To rectify this, Daly (1994) collected PSI reports to garner three pieces of information from them: the facts behind the offense committed, the offender’s social history, and the offender’s prior record. From this data, Daly (1994) concluded that women’s crimes were, on average, less serious than men’s crime’s even though they were defined as the same crime. Further, women were often less blameworthy, as they had fewer serious offenses on their prior record, did not spend time in prison, and often acted as pawns in the crime. Therefore, Daly’s (1994) work suggested that offense type may need to be studied in more detail.

The current study employed an approach similar to that used by Daly (1994). PSI reports were not available to the researcher in Pennsylvania⁹, but the official court

---

⁹ Pennsylvania requires a court order to be filed for access to PSI reports. In Pennsylvania, the judges technically own the reports, so each judge would have to give his or her permission to view the report.
records contain the police report of each offense. The police report from each of the 54 offenders was analyzed to gain a better understanding of the offense they were convicted for. Because both offenders were convicted of the same crime, a study of the police report allowed for a closer examination of the facts of each case. This may reveal that the crimes committed by both of the individuals may be defined quantitatively as the same crime, but there could be distinct qualitative differences that account for the disparity witnessed in the sentences. Or, the crimes may be the same, suggesting that race played a significant role in the sentencing disparities witnessed, as Daly (1994) suggested in her study. To examine this, the researcher scanned each report and compared the crimes of each offender.

**Conclusion**

The purpose of the current research was to expand on the wealth of literature that analyzed the impact of race on sentencing. As previously stated, the majority of this research employed only quantitative techniques when studying the role race plays in the bifurcated sentencing process. While this had allowed researchers to conclude that race did play a significant role, it could be argued that it does not adequately explain why it plays a significant role. In 1994, Daly offered a blueprint on how to better analyze the impact extralegal variables have on sentencing decisions, and the current project aims to continue and expand on this line of research.

Data has been gathered from the Pennsylvania Commission on Sentencing that included sentencing decisions from the years 2004-2006. The current study first quantitatively analyzed all felony sentences in Allegheny County (the wide sample). This
served dual purposes: first, it assessed what variables, both legal and extralegal, significantly impacted both sentencing decisions. Second, it allowed the researcher to determine what judges showed the most sentencing disparities, and what crimes had the most disparities in sentencing decisions. This knowledge then allowed the researcher to engage in the qualitative aspect of the study.

The deep sample was then constructed. A total of 54 offenders comprised this sample, 27 black and white, with the same sentencing judge per pair of offenders. Once the sample was created, the police reports contained in the official court records were analyzed. This document allowed for an examination of the crimes committed by the offenders who comprise the deep sample. As Daly (1994) found, many of the crimes defined as the same by quantitative techniques varied drastically once the reports were read. This explained much of the sentencing disparity witnessed by her.

In sum, the goal of the current study was to more closely analyze, and therefore more deeply understand, why race still plays a significant role in the sentencing decision. By employing a multimethod approach, a closer inspection of the sentencing process could be undertaken and, hopefully, a more complete understanding of the sentencing decision could be had.
Chapter IV

Analysis

Introduction

Chapter IV will present the results of the quantitative and qualitative analyses of the current study. Descriptive statistics of all three samples will first be presented, highlighting the differences witnessed in each. Followed will be a brief discussion of bivariate analyses examined for all three models.

Attention will then turn to the multivariate quantitative analyses, first examining the multinomial logistic results of the sentence outcome for all three models, followed by the OLS results that examined the length of sentence imposed on the offenders of all three models. Finally, the qualitative analysis examined if quantitatively defined “like” crimes were qualitatively different contextually. The results of this analysis will be described.

Descriptive Statistics

Table 2 presents the descriptive statistics of the current study. This study encompasses all individuals convicted of a felony in Allegheny County between the years 2004 and 2006. All misdemeanors were dropped from the dataset, along with any ages that were mistyped during the creation of the dataset. This left an overall sample of 6,983 convicted felons in Allegheny County for the years 2004 through 2006.

---

The years 2007 and 2008 could not be used because of formatting errors in the datasets.
Dependent variables

The current study examined the effect the independent variables had on two dependent variables: the sentence outcome decision and the length of sentence imposed in months. As discussed, the sentence outcome was a four attribute dependent variable that consists of intermediate sanctions, probation, jail, and prison. Table 2 showed that 830 offenders were sentenced to intermediate sanctions, 2,683 were placed on probation, 2,144 were sentenced to jail, and 1,326 offenders received a prison sentence.

Examining the length of sentence, the average sentence length was approximately 44 months. The least amount of time served was zero months (those sentenced to intermediate sanctions or probation), and the longest sentenced meted out was 728 months.

Independent variables

Several independent variables were included in this study to examine their influence on the type of sentence received and the length of any incarceration sentence handed out. The legal variables included the prior record score (PRS) and offense gravity score (OGS), the edition of the sentencing guidelines used, and the type of offense (drug, property, and personal). The extralegal variables include the race, sex, and age of the offender.
Legal variables.

The legal variables for this study were PRS, OGS, guideline edition, and type of offense. As outlined in Table 2, the range for PRS is a score of zero to a score of seven, with the average PRS equaling 2.2. Examining the OGS, the range was a score of three to a score of 14 with the average score being approximately six. Scores of one and two would not be seen in this dataset because they are reserved for misdemeanors. Reviewing the edition of the guidelines offenders were sentenced under, most were sentenced with the 5th edition (N = 5,840, as compared to 1,143 under the 6th edition). Finally, the majority of offenders committed property offenses (N= 3,690), followed by drug offenses (N = 2,122), and finally personal offenses (N = 1,171). Finally, the impact that the number of convictions has on both the sentence outcome and the length of sentence imposed will be examined. The mean of this variable equaled two.

Extralegal variables.

The three extralegal variables included in the current analyses are race, sex, and age. Examining race, Table 2 highlights that black offenders comprise 4,068 of the convicted individuals while white offenders account for 2,915 individuals in the total sample. Males made up the overwhelming majority of the sample (N = 5,752, while females accounted for the other 1,231). Finally, the age range was 18-88, with the average age being approximately 32 years old.

---

11 Mode of conviction could not be included because over half of all cases did not have the mode of conviction entered into the dataset.
12 All juvenile offenders were dropped from the current analysis.
Descriptive variables for the black and white datasets.

In addition to the overall dataset, two other datasets were created: one consisting of all black offenders (N = 4,068) and one consisting of all white offenders (N = 2,915) because traditional interactive variables could not accurately be created due to small numbers. This will allow the researcher to look at independent variables that impact black felony offenders’ and white felony offenders’ sentences. A z test will then determine if the significant independent variables in the models are significantly different. The two race specific datasets should give a better understanding of the role race played in sentencing decisions. The demographics of both the black and white datasets are highlighted in Table 2.

Black dataset demographics.

The overall number of cases of the black dataset was 4,068 offenders. Focusing first on the dependent variables as highlighted in Table 2, the average length of sentences was approximately 47 months, and the majority of offenders were placed on probation (N = 1,348), although a jail sentence occurred at almost an equal rate (N = 1,325). Turning attention to the independent variables, the majority were male (N = 3,469), with an average age of approximately 31 years old. In regard to the legal variables, the average offender had a PRS of approximately 2.5, an OGS of approximately 6, were primarily sentenced under the 5th edition of the guidelines (N = 3,425), and the majority committed property offenses (N = 1,873).

---

13 Specifically, nine different interactive variables were created that incorporated the race, age, and sex of the offender. One such group was “elderly white male.” However, this group only comprised eight percent of the overall sample, and therefore any findings in the regression analyses could not be accurately interpreted. The numbers were even smaller for all female interactions.
White dataset demographics.

The white dataset was comprised of 2,915 offenders. As highlighted in Table 2, the approximate length of incarceration was 39 months, with the majority of white offenders being sentenced to probation (N = 1,335). As with the black sample, the majority of white offenders were male (N = 2,283), and their average age was 32 years old. The average white offender had a PRS of approximately 2, an OGS of 6, had been sentenced primarily under the 5th Edition of the Sentencing Guidelines (N = 2,415), and had primarily committed property offenses (N = 1,817).
Table 2  

*Frequencies of the Dependent and Independent Variables for all Samples*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Overall</th>
<th>Black</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>Mean</td>
<td>N</td>
</tr>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentence Outcome</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 = Intermediate</td>
<td>830</td>
<td>11.9</td>
<td>460</td>
<td>11.3</td>
</tr>
<tr>
<td>Sanctions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = Jail</td>
<td>2,144</td>
<td>30.7</td>
<td>1,325</td>
<td>32.6</td>
</tr>
<tr>
<td>2 = Prison</td>
<td>1,326</td>
<td>19.0</td>
<td>935</td>
<td>23.0</td>
</tr>
<tr>
<td>3 = Probation</td>
<td>2,683</td>
<td>38.4</td>
<td>1,348</td>
<td>33.1</td>
</tr>
<tr>
<td>Length of Sentence (Months)</td>
<td></td>
<td>44.5</td>
<td>47.4</td>
<td></td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 = white</td>
<td>2,915</td>
<td>41.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = black</td>
<td>4,068</td>
<td>58.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 = female</td>
<td>1,231</td>
<td>17.6</td>
<td>599</td>
<td>14.7</td>
</tr>
<tr>
<td>1 = male</td>
<td>5,752</td>
<td>82.4</td>
<td>3,469</td>
<td>85.3</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>31.6</td>
<td>31.0</td>
<td></td>
</tr>
<tr>
<td>PRS</td>
<td></td>
<td>2.2</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>OGS</td>
<td></td>
<td>6.1</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>Guideline Edition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = 5th Edition</td>
<td>5,840</td>
<td>83.6</td>
<td>3,425</td>
<td>84.2</td>
</tr>
<tr>
<td>2 = 6th Edition</td>
<td>1,143</td>
<td>16.4</td>
<td>643</td>
<td>15.8</td>
</tr>
<tr>
<td>Number of Convictions</td>
<td></td>
<td>2.0</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td>Drug Offense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,122</td>
<td>30.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property Offense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3,690</td>
<td>52.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Offense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,171</td>
<td>16.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Finally, the differences of each sample should be noted. Both the PRS and OGS averages for the black sample were slightly higher than that of the white sample and the overall sample. Black offenders were also much more likely to commit drug offenses and less likely to commit property offenses than whites, but personal offenses were
committed at almost the exact same rate per population among the racial groups.

Examining the dependent variables, blacks did receive slightly longer sentences than both the overall sample and the white sample. However, they were far more likely to be sent to prison than the overall and white samples. And while their PRS and OGS scores were higher, they were not drastically so, leading one to question why such a stark contrast exists. This also highlighted why multivariate models controlling for various factors were necessary.

**Analysis**

The following section will present the quantitative analysis of the impact the independent variables have on both the sentence outcome and the length of sentence imposed on the offender. First, bivariate results will be summarized by examining correlations among the dependent and independent variables. Next, the multivariate analyses will be analyzed. The first part of the bifurcated sentencing decision – the sentence outcome – will be examined, analyzing models created for the overall sample, a black sample, and a white sample. Following will be an examination of the impact the independent variables have on the length of sentence imposed will be examined. As with the sentence outcome analyses, the length of sentence analyses will also employ three different models: the overall sample, the black population, and the white population.

**Bivariate analyses.**

Correlations were performed for all three samples to examine the impact each independent variable had on the length of sentence imposed on the defendants (see Appendix D for the matrices). First, in all three samples there were no instances of
multicollinearity, as none of the r values were .7 or higher. Examining the overall sample first, several variables significantly influenced the length of sentence: sex, race, OGS, number of convictions, guideline edition, and personal, drug, and property. Not many of these correlations yielded a high, or even moderate, Pearson’s r except OGS, which had an r value of .64. An unusual finding was that PRS did not significantly influence this decision.

Focusing on the black sample, every variable influenced the length of sentence imposed, again with the exception of PRS. As with the overall sample, OGS had the greatest influence, with an r value of .68. In regard to the white sample, every variable but PRS and drug offense influence the length of sentence imposed, with the OGS score having the highest r value (.56).

Overall the results of the bivariate analyses found no multicollinearity issues. None of the findings were unexpected except the lack of significance found between PRS and the length of sentence imposed. This was surprising, as it is in stark contrast to a myriad of studied that have reported PRS a significant variable (Chiricos & Bales, 1991; Demuth & Steffensmeier, 2004; Holleran & Spohn, 2004; Nobiling et al., 1998; Spohn & DeLone, 2000; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1993; Steffensmeier et al., 1998). Specifically, this research has suggested that an increase in PRS increases the length of sentence imposed. Further, it has been found, along with OGS, to be the most powerful predictor of sentence length.
Sentence outcome.

The following discussion consists of the results of the logistic regression analysis run to examine the impact of the independent variables on the sentence outcome decision. The parallel slopes test was run to determine if the data were ordered. This test failed, requiring multinomial logistic regression to be used.\textsuperscript{14} For all three models, “probation” was used as the reference category, thereby comparing intermediate sanctions, jail, and prison to probation. A discussion of the overall sample comes first, followed by the black offender sample and finally the white offender sample.

Overall sample.

The multinomial logistic regression model for the overall sample was significant (Cox and Snell = .452; Nagelkerke = .488; McFadden = .232). Focusing on the first column of Table 3, five independent variables influenced the decision to receive intermediate sanctions compared to probation: personal offenses, drug offenses, PRS, OGS, and number of convictions. None of the extralegal variables significantly influenced this decision, including race. To interpret the b coefficients of the dummy variables, a conversion created by Pampel (2000) will be used to make the results more reader-friendly, while Roncek (1991, 1993) has suggested using a different equation for the continuous variables. The equations are as follows:

Dummy variables: \(((\text{Exp}(B) - 1))(100)\)

Continuous variables: \(b \times 100\)

\textsuperscript{14} A test of the parallel lines was examined for all three models. Because this test was significant for all three models the null hypothesis, which states that the location of the parameters are the same across all response categories, was rejected.
Examining the results more closely, the odds of receiving intermediate sanctions rather than probation increased by 85% and 104% respectively, when committing a personal or drug offense compared to a property offense. Increasing PRS one point increased the chances of receiving intermediate sanctions over probation by 58% while doing the same for OGS increased the odds by 47%. Finally, increasing the number of convictions by one increased odds of receiving an intermediate sanction rather than probation by approximately 8%.

It is also important to examine which variable had the greatest effect on the dependent variable. Roncek (2006) argued for the use of a simple formula – the b coefficient for the significant variable multiplied by the standard deviation of that variable – that allows one to rank all significant variables. For this model, the likelihood of receiving intermediate sanctions compared to probation, PRS had the greatest effect, followed by OGS (see Table 3 for full results).

The next column compares the results of receiving a jail sentence to a prison sentence, and in this model six independent variables influenced this decision: sex, age, personal offenses, drug offenses, PRS, and OGS. Focusing first on the extralegal variables, being male increased odds of receiving a jail sentence rather than a probation sentence by 103%, while adding one year onto an offender’s age decreased the odds of receiving a jail sentence instead of a probation sentence by 1%. In regard to the legal variables, committing a personal (193%) or drug (27%) offense both increased the odds of receiving a jail sentence instead of a probation sentence, as did increasing the PRS (76%) and OGS (40%). As with the comparison of a probation sentence to intermediate
sanctions, PRS had the greatest effect on probation rather than jail, followed by OGS, personal offenses, sex, age, and finally drug offenses.

Finally, the last column highlighted the results comparing receiving a prison sentence to a probation sentence. All independent variables had a statistically significant impact on this decision. Examining the extralegal variables first, males (176%) and black offenders (26%) face greater odds of receiving a prison sentence rather than a probation sentence, as do younger offenders (4%). Focusing on the legal variables, being sentenced under the 6th edition of the guidelines (31%) decreased the odds of receiving a prison sentence instead of a probation sentence, committing a drug offense (193%) over a property offense, a personal offense (240%) over a property offense, and increasing the PRS (129%), OGS (146%), and the number of convictions (9%) all increased the odds of receiving a prison sentence rather than a probation sentence, holding all else constant. Unlike the previous two comparisons, OGS had the greatest effect on receiving prison instead of probation, followed by PRS, drug offenses, personal offenses, sex, age, number of convictions, guideline edition, and finally race.
Table 3

**Multinomial Logistic Regression Results of the Overall Model**

<table>
<thead>
<tr>
<th></th>
<th>Intermediate Sanctions</th>
<th>Jail</th>
<th>Prison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (S.E.)</td>
<td>Exp(B)</td>
<td>(b)(s)</td>
</tr>
<tr>
<td>Race</td>
<td>-162 (.089)</td>
<td>.850</td>
<td>NS</td>
</tr>
<tr>
<td>Sex</td>
<td>.022 (.108)</td>
<td>.827</td>
<td>NS</td>
</tr>
<tr>
<td>Age</td>
<td>-.007 (.004)</td>
<td>.993</td>
<td>NS</td>
</tr>
<tr>
<td>PRS</td>
<td>.455** (.025)</td>
<td>1.577</td>
<td>.974</td>
</tr>
<tr>
<td>OGS</td>
<td>.382** (.029)</td>
<td>1.465</td>
<td>.894</td>
</tr>
<tr>
<td>Guideline</td>
<td>-.249 (.108)</td>
<td>1.282</td>
<td>NS</td>
</tr>
<tr>
<td>Number of</td>
<td>.084** (.105)</td>
<td>1.088</td>
<td>.291</td>
</tr>
<tr>
<td>Convictions</td>
<td>.836** (.105)</td>
<td>2.306</td>
<td>.384</td>
</tr>
<tr>
<td>Drug Offense</td>
<td>.615** (.171)</td>
<td>1.849</td>
<td>.230</td>
</tr>
</tbody>
</table>

*variable significant at .05 level
**variable significant at .001 level

**Black offender sample.**

As with the overall sample, the multinomial regression model for the black sample was statistically significant (Cox and Snell = .473; Nagelkerke = .510; McFadden = .244). Further, as highlighted in Table 4 and similar to the overall model, only legally relevant variables were significant when examining the odds of a black offender receiving intermediate sanctions compared to probation. Committing a drug offense and personal offense increased the odds of receiving intermediate sanctions instead of probation by 142% and 66%, respectively. In addition, one unit increase in PRS (68%), OGS (55%), and the number of convictions (19%) all increased the odds of receiving...
intermediate sanctions rather probation for black defendants. The variable with the strongest effect was again PRS, followed by OGS, drug offense, number of convictions, and personal offense.

Six independent variables influenced the decision to sentence a black offender to a jail sentence compared to probation, including both extralegal variables. Specifically, increasing age decreased the odds of receiving a jail sentence compared to a probation sentence by 1%. Further, black males (77%) faced increased odds of being sentenced to jail compared to probation. Focusing on the legally relevant variables, committing a drug offense (25%) or personal offense (236%) over a property offense, and increasing the PRS (67%) and OGS (37%) significantly increased the odds of a black defendant receiving a jail sentence compared to probation. Again, PRS had the greatest effect, followed by OGS.

Finally, as with the overall model, every legal and extralegal variable significantly influenced the decision to sentence a black offender to prison compared to probation. As with the decision to sentence a black offender to jail instead of probation, young (4%) black males (197%) faced greater odds of receiving a prison sentence than probation. Being sentenced under the 6th edition of the guidelines decreased the odds of receiving a prison sentence compared to probation by 3%. Finally, committing a drug (194%) offense, personal (235%) offense over a property offense, or an increase in PRS (128%), OGS (168%), or number of convictions (18%) significantly increased a black defendant’s odds of receiving a prison sentence instead of probation. Like the overall model, for this comparison OGS had the greatest impact, followed by PRS.
### Multinomial Logistic Regression Results of the Black Model

<table>
<thead>
<tr>
<th></th>
<th>Intermediate Sanctions</th>
<th></th>
<th>Jail</th>
<th></th>
<th></th>
<th>Prison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (S.E.)</td>
<td>Exp(B)</td>
<td>(b)(s_b)</td>
<td>B (S.E.)</td>
<td>Exp(B)</td>
<td>(b)(s_b)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>-.087 (.158)</td>
<td>.916</td>
<td>NS</td>
<td>.571** (.122)</td>
<td>1.770</td>
<td>.202</td>
</tr>
<tr>
<td>Age</td>
<td>-.009 (.006)</td>
<td>.991</td>
<td>NS</td>
<td>-.014* (.005)</td>
<td>.986</td>
<td>-.151</td>
</tr>
<tr>
<td>PRS</td>
<td>.520** (.035)</td>
<td>1.682</td>
<td>1.13</td>
<td>.515** (.027)</td>
<td>1.674</td>
<td>1.12</td>
</tr>
<tr>
<td>OGS</td>
<td>.437** (.042)</td>
<td>1.547</td>
<td>1.03</td>
<td>.312** (.032)</td>
<td>1.366</td>
<td>.736</td>
</tr>
<tr>
<td>Guideline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edition</td>
<td>.166 (.151)</td>
<td>1.181</td>
<td>NS</td>
<td>-.182 (.117)</td>
<td>.834</td>
<td>NS</td>
</tr>
<tr>
<td>Number of</td>
<td>.174** (.032)</td>
<td>1.191</td>
<td>.351</td>
<td>-.031 (.035)</td>
<td>.970</td>
<td>NS</td>
</tr>
<tr>
<td>Convictions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug</td>
<td>.884** (.141)</td>
<td>2.420</td>
<td>.427</td>
<td>.225* (.109)</td>
<td>1.252</td>
<td>.109</td>
</tr>
<tr>
<td>Offense</td>
<td>.509* (.259)</td>
<td>1.663</td>
<td>.190</td>
<td>1.212** (.182)</td>
<td>3.361</td>
<td>.453</td>
</tr>
</tbody>
</table>

*variable significant at .05 level
**variable significant at .001 level

**White offender sample.**

Finally, the multinomial regression analysis for the white offender sample was statistically significant (Cox and Snell = .403; Nagelkerke = .439; McFadden = .207). As highlighted in Table 5, and consistent with the prior two models, no extralegal variables significantly influenced the odds of receiving an intermediate sanction sentence compared to a probation sentence. However, unlike the previous two models the guideline edition did influence this decision, with white offenders who were sentenced under the 6th edition facing 45% greater odds of being sentenced to intermediate sanctions than probation. Several legally relevant variables played a role, with white offenders who committed drug (108%) or personal (95%) offenses facing greater odds of receiving intermediate sanctions rather than probation. In addition, increasing the PRS score by one increased the odds by 45%, doing the same to OGS increased the odds by
38%, and increasing the number of convictions increased the odds of receiving intermediate sanctions compared to probation by 6%. PRS had the greatest effect, followed by OGS (see Table 5 for full results).

Both extralegal variables significantly affected the decision to sentence a white offender to jail compared to probation. Specifically, young (2%) white males (59%) faced greater odds of receiving a jail sentence instead of probation. In regard to the legal variables, committing a drug offense increased the odds by 37% while committing a personal offense increased the odds by 234%. Further, increasing the PRS (69%) and OGS (45%) scores significantly increased the odds of receiving a jail sentence rather than probation for white defendants. Again, PRS had the greatest impact, followed by OGS, personal offense, sex, age, and finally drug offense.

Finally, and as witnessed in the prior two models, every legally relevant and irrelevant variable significantly influenced the odds of receiving a prison sentence compared to a probation sentence. Young (2%) white males (156%) faced a greater odds of receiving a prison sentence compared to probation while those who were sentenced under the 6th edition of the guidelines were 4% less likely to receive prison instead of probation. Further, those white offenders who committed a drug (207%) or personal (279%) offense as compared to property offenses, and had higher PRS (136%) and OGS (137%) scores, and had more convictions (6%) faced a greater odds of receiving a prison sentence compared to probation. Like the two previous models, for this comparison OGS had the greatest effect, followed by PRS. Among the two extralegal variables, sex had a stronger impact than age.
Table 5

Multinomial Logistic Regression Results of the White Model

<table>
<thead>
<tr>
<th></th>
<th>Intermediate Sanctions</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B (S.E.)</td>
<td>Exp(B)</td>
<td>(b)(s_e)</td>
<td>B (S.E.)</td>
<td>Exp(B)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.122 (.150</td>
<td>1.130</td>
<td>NS</td>
<td>.462 (.129)</td>
<td>1.588</td>
</tr>
<tr>
<td>Age</td>
<td>-.007 (.006)</td>
<td>.993</td>
<td>NS</td>
<td>-.015 (.005)</td>
<td>.985</td>
</tr>
<tr>
<td>PRS</td>
<td>.374** (.037)</td>
<td>1.454</td>
<td>.755</td>
<td>.526** (.030)</td>
<td>1.693</td>
</tr>
<tr>
<td>OGS</td>
<td>.325** (.040)</td>
<td>1.384</td>
<td>.747</td>
<td>.374** (.033)</td>
<td>1.454</td>
</tr>
<tr>
<td>Guideline</td>
<td>.373* (.154)</td>
<td>1.452</td>
<td>.141</td>
<td>-.046 (.133)</td>
<td>.955</td>
</tr>
<tr>
<td>Edition</td>
<td>.056** (.015)</td>
<td>1.058</td>
<td>.268</td>
<td>.016 (.018)</td>
<td>1.106</td>
</tr>
<tr>
<td>Offense Count</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug Offense</td>
<td>.731** (.161)</td>
<td>2.077</td>
<td>.298</td>
<td>.318* (.139)</td>
<td>1.374</td>
</tr>
<tr>
<td>Personal Offense</td>
<td>.666* (.230)</td>
<td>1.946</td>
<td>.248</td>
<td>.924** (.183)</td>
<td>3.605</td>
</tr>
</tbody>
</table>

*variable significant at .05 level
**variable significant at .001 level

Length of sentence

Attention now turns to the impact the independent variables have on the length of sentence imposed on the offender. Because length of sentence is a continuous variable measured in months, OLS regression was used to analyze the data. As with the sentence outcome decision, the overall sample will be analyzed first, followed by the black offender sample and finally the white offender sample.

Overall sample.

As highlighted in Table 6, the OLS regression model was significant, with an $R^2$ value equaling .463 – explaining approximately 46% of the variance observed in the dependent variable. Two of the three extralegal variables – age and race – significantly influenced the length of sentence imposed on an offender. Specifically, black defendants
received an average sentence length that was approximately six months longer than white defendants’ sentence. While age was significant, it has a negligible impact on the length of sentence imposed, with an increase of less than one month with each increase in age. Surprisingly, sex did not significantly influence the length of sentence imposed on an offender, contrary to numerous findings in the sentencing literature.

Several legal variables had a significant impact on the length of sentence imposed on the convicted individual. For each increase in PRS, the sentence increased approximately six months. Showing a more dramatic effect than PRS, for each increase in OGS an offender’s sentence increased approximately 16 months. The more offenses the defendant was convicted of increased their sentence ($B = 1.171$), and being sentenced under the 6th edition of the Sentencing Guidelines reduced a sentence by approximately five months. Finally, while personal offenses did not significantly influence the length of sentence imposed on an offender as compared to property offenses, drug offenses did significantly influence the length of sentence, with those convicted receiving a sentence that was approximately nine months shorter than those convicted of a property offense. Further, examining the standardized coefficients of the significant variables allows the researcher to examine which variable had the greatest effect on the length of sentence imposed. For the overall model, OGS had the greatest influence, followed by PRS, drug offense, number of convictions, race, age, and finally guideline edition.

Black offender sample.

The results of the OLS regression for the black sample can be found in Table 6. The overall sample was significant, with an $R^2$ value of .512, explaining 51% of the
variance witnessed in the dependent variable. Of the two extralegal variables under
evaluation in this dataset only one – sex – influenced the length of sentence imposed on
the defendant. However, it did so in an unexpected way: black males received, on
average, a sentence that was approximately seven months shorter than black female
defendants.

Examining the legal variables’ impact on the length of sentence imposed, PRS,
OGS, guideline edition, number of convictions, and drug offenses all had a significant
impact. Each increase in PRS increased the length of sentence by approximately five
months (B = 5.493), while OGS increased it by approximately 18 months (B = 17.893).
Each increase in number of convictions increased the length of sentence by two months,
while being sentenced under the 6th edition of the guidelines decreased the length of
sentence by six months – similar to the results found in the overall sample. Finally,
convicted black defendants who committed drug offenses received sentences
approximately 10 months shorter than those who were sentenced for property offenses.
Comparing the standardized coefficients, OGS again had the largest effect, followed by
PRS, drug offense, number of convictions, guideline edition, and finally sex.

**White offender sample.**

Highlighted in Table 6 are the results of the OLS regression completed for the
white dataset. The overall model was significant, with an $R^2$ value of .368, explaining
37% of the variance in the dependent variable. Examining the extralegal variables, only
the defendant’s age significantly influenced the length of sentence imposed on a white
defendant. As with the overall sample, however, the effect was negligible. Also, and
again mirroring the overall sample, the sex of the white offender did not significantly influence the length of sentence imposed.

Turning attention to the legal variables, only three significantly impacted the length of sentence imposed on white offenders: PRS, OGS, and number of convictions. Increases in all three variables increased the length of sentence imposed. Specifically, an increase in PRS increased the sentence by six months ($B = 5.527$), an increase in OGS increased the sentence by 13 months ($B = 13.496$), and an increase in the number of convictions increased it a miniscule amount; approximately one month ($B = .862$). Unlike the overall model, the edition of the guidelines did not significantly influence this decision for white defendants, nor did the type of offense. As with the previous models, OGS had the greatest effect, followed by PRS, age, and number of convictions.

Because two samples were used, and variables were found to be statistically significant in both models, it is appropriate to conduct a $z$-test. This test allows for an examination of whether there are significant differences between the models, and in which model the variable was more significant. Brame, Paternoster, Mazerolle, and Piquero (1998, p. 258) suggest the following equation to be the most appropriate when conducting a $z$-test:

$$z = (b_1 - b_2) / \sqrt{(SE_{b1}^2 + SE_{b2}^2)}$$

In this equation $b_1$ is the unstandardized coefficient of the black model and $b_2$ the value of the white model while is $SE_{b1}$ the standard error of the black variables and $SE_{b2}$ is the standard error of the white variables. A $z$-test is significant at the .05 level when the value is 1.96 or greater, and significant at the .001 level when the score is 2.58 or greater.
(Bachman & Paternoster, 2004). The scores can be found in Table 8. Only the z-test of the OGS scores is significant, with OGS having a greater influence on the black model than the white.

Table 6

<table>
<thead>
<tr>
<th></th>
<th>Overall Model (R² = .463)</th>
<th>Black Model (R² = .512)</th>
<th>White Model (R² = .368)</th>
<th>z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B (S.E.)</td>
<td>Beta</td>
<td>B (S.E.)</td>
<td>Beta</td>
</tr>
<tr>
<td>Race</td>
<td>5.286** (1.676)</td>
<td>.045</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sex</td>
<td>-4.398 (2.706)</td>
<td>NS</td>
<td>-7.507* (3.545)</td>
<td>-.032</td>
</tr>
<tr>
<td>Age</td>
<td>.183* (.080)</td>
<td>.032</td>
<td>.147 (1.02)</td>
<td>NS</td>
</tr>
<tr>
<td>PRS</td>
<td>5.654** (.408)</td>
<td>.201</td>
<td>5.493** (.510)</td>
<td>.186</td>
</tr>
<tr>
<td>OGS</td>
<td>16.425** (.421)</td>
<td>.675</td>
<td>17.893** (.518)</td>
<td>.714</td>
</tr>
<tr>
<td>Guideline Edition</td>
<td>-5.090* (2.183)</td>
<td>-.030</td>
<td>-5.943* (2.710)</td>
<td>-.033</td>
</tr>
<tr>
<td>Offense Count Number</td>
<td>1.171** (.284)</td>
<td>.053</td>
<td>1.719** (.453)</td>
<td>.058</td>
</tr>
<tr>
<td>Drug Offense</td>
<td>-9.243** (2.033)</td>
<td>-.070</td>
<td>-10.96** (2.432)</td>
<td>-.084</td>
</tr>
<tr>
<td>Personal Offense</td>
<td>4.453 (2.560)</td>
<td>NS</td>
<td>2.125 (3.248)</td>
<td>NS</td>
</tr>
</tbody>
</table>

*variable significant at .05 level
**variable significant at .001 level

Qualitative analysis.

To supplement the quantitative analyses – and replicate the work of Daly (1994) – qualitative analysis of police reports were also conducted. These reports were obtained from Allegheny County’s Office of Records Criminal Division. The purpose of this analysis was to examine if quantitatively defined “like” crimes are qualitatively different. Daly (1994) was able to explain why most females were sentenced more leniently than males through this technique: she discovered that their crimes were often less serious,
even if they were legally and quantitatively defined as the same offense. The purpose of the current analysis is to examine if there is a similar finding between races.

For the current research 54 offenders were matched based on their age, PRS, OGS, sex, sentencing judge, and number of convictions\textsuperscript{16}. The offenders were also placed in one of three categories: drug, property, and personal offenses. This was done to allow for an examination of the liberation hypothesis first put forth by Kalven Jr. and Zeisel (1966) and adapted for sentencing by Spohn and Cederblom (1991). Briefly, this hypothesis posits that judges are more likely to use their discretion – and thereby more likely to show biases in sentencing – when the crimes are less severe. Analyzing each crime by type of offense will allow the researcher to examine if there is more racial disparity in the less severe crimes, which would offer support for the liberation hypothesis.

To analyze these offenses, the researcher first read each pair of offenses without any knowledge of the sentence imposed and concluded which crime was more severe. In addition, a second independent reader examined a random selection of 12 of the 27 pairs, also stating which was more severe, if any. Of the 12 matched pairs, the researcher and reader ranked ten of the pairs the same, or 83\%\textsuperscript{17}. As Carmines and Zeller (1979) state, interrater reliability should be 80\% or greater, suggesting that this standard was met.

\textsuperscript{16} The original plan was to have 60 pairs, but files in the Records Department could not be found, causing the researcher to drop three pairs – one from each type of crime category.

\textsuperscript{17} The researcher and second reader discussed the two that were not in agreement. In regard to the first, the reader felt the crimes were the same, while the researcher believed one to be just slightly worse. For the other, there was a philosophical disagreement. The researcher believed that stealing money from a family member was more severe than stealing a car on E-bay from a stranger, while the reader believed committing a crime against a stranger is always more severe.
Then, the sentences were analyzed for each offense, allowing for an evaluation of whether any disparities witnessed could have been explained by a qualitative examination of the crimes committed. Below are the qualitative results of each of the three offense categories.

**Drug offenses.**

There were several drug crimes that fall under this category, all of which were the most prevalent in the wide dataset. There were two pairs of offenders arrested for possession with intent to deliver cocaine (2.5 - < 10g; OGS 7) and three more for possession with intent to deliver cocaine (10 - < 50g; OGS 8) and three arrested for possession with intent to deliver heroin (1 - < 10g; OGS 7).

One of the more interesting findings of the drug offense crimes was the amount of crimes committed for each of these offenses. Out of the eighteen total offenders who make up this sample, fourteen were arrested for multiple offenses. Along the way plea deals were made and charges dropped, leaving all of these offenders with only one conviction, and all for the drug offense. The offenses that were dropped ranged from summary offenses such as traffic violations, other drug offenses such as possessing marijuana or drug paraphernalia, and more serious offenses such as burglary, assault, and one rape. In regard to the sentences, there were four that were not sentenced differently at all or only had minor differences (3-23 months compared to 12-24; house arrest compared to probation). The other five pairs did see differences in sentencing, and will be explored more completely.
There were two pairs of offenses where drastically different sentences were seen. In one of the pairs of possession with intent to deliver cocaine (2.5 - < 10g; OGS 7), the white offender was sentenced to 12-24 months in prison, while the black offender was sentenced to probation. Examining the offenses, the white offender was arrested by undercover drug officers and was caught in possession of just cocaine, while the black offender was also found with heroin at his school (a charge that was dropped). Examining the quantitative data, the ranges the judge had to sentence the offenders in were different, with the white offender having a range with longer prison sentences. Therefore, the judge actually sentenced both in the standard range. It is not known to the researcher why the ranges were different.

A similar phenomenon was witnessed between a pair of offenders convicted for possession with intent to deliver cocaine (10 - < 50g; OGS 8). However, in this instance the police were called originally because the black offender had been accused (and arrested for) a rape, but his sentence range was still lower than that of the white offender, who was in possession of cocaine, marijuana, pain pills, ammunition, and a pipe. Again, it is not clear why separate ranges were used, and therefore it is difficult to accurately analyze the sentences.

This leaves three pairs of offenses where one individual was sentenced for a longer period of time than the other, suggesting that a closer examination of the crimes committed was necessary. In two instances, it was the black offender who received the more severe sentence, while in the third the white offender actually received a more severe sentence.
In the first, both offenders were arrested for possession with intent to deliver heroin (1 - < 10g; OGS 7). The black offender was arrested with 7 bundles (66 stamp bags) of heroin. This was his only crime committed and he freely admitted that he did not use heroin, he just sold it. The white offender, on the other hand, was arrested for possessing heroin, possessing drug paraphernalia (needles), corrupting a minor (an underage female was helping him sell the drugs), and criminal conspiracy. While all crimes but the possession were dropped, this seems like the more severe offense given the context surrounding the crime. However, the black male was sentenced to 24-48 months in prison, which was outside above the guideline range\(^\text{18}\) (which ranged from RS to 20 months), while the white offender was given a standard 9-23 month sentence. Both had a PRS of 0.

In the second scenario where a white offender was sentenced more leniently, both actually received a mitigated sentence. Both were arrested with possession with intent to deliver heroin (1 - < 10g; OGS 7), carrying a range of 18-36 months. The black offender received this sentence, while the white offender was placed under house arrest.

Examining the offenses, the black offender was pulled over for turning without signaling, which led to a search that uncovered 46 baggies of heroin. The black offender then admitted that he had more at his home, took the officers to his house, and turned over the rest of his narcotics. The white offender was also in possession of heroin, but the report is incomplete and does not state the amount. Both of these offenses seem similar and may

---

\(^{18}\) The PA Sentencing Guideline data does have a section that allows those who enter data to write what the rationale of a judge was when they did not follow the standard guideline range. These were also examined, although most state, “no reason given.” However, there was no explanation given as to why he was sentenced outside above the guideline range in the dataset.
not have warranted such an extreme difference in sentencing, especially since the black offender cooperated with the police.

Examining the offense where the white offender was sentenced to a longer term of imprisonment (36-72 compared to 24-48), both crimes of cocaine possession (10 - < 50g; OGS 8) were quite similar. Further, the black offender, as stated in the police report, had been arrested ten previous times for possession of cocaine. Regardless, he received a mitigated sentence, while the white offender received an aggravated one. It is unclear of the rationale of the judge.

In sum, there were some instances where the crimes defined as “like” were in fact contextually different, supporting what Daly (1994) found. With that said, however, overall it appeared as though the judges were quite fair once the police report was considered. Three different judges handed down the most blatant sentence disparities, ruling out a rogue judge. Too much is missing from the current data (sentencing transcripts, PSI reports) to analyze causes for disparity, but the findings do raise questions about what judges may take into account when sentencing.

**Property offenses.**

The offenders who were arrested for property crimes committed one of the following offenses: two pairs committed a burglary of a home when no one was present (OGS 7), one pair a criminal trespass of a building (OGS 3), two pairs retail theft – 3rd or subsequent offense (OGS 6), two pairs theft, receiving stolen property; >$2,000 - $25,000/Auto etc. (OGS 5), one pair theft – unlawful taking; >$2,000 - $25,000/Auto etc. (OGS 5), and one pair of insurance fraud (OGS 4).
When examining the sentences meted out, about half (five) of the defendant pairs were sentenced similarly, and in the standard range. There were some instances where one was sentenced to slightly longer sentences, or longer probationary periods, than their matched pair, but nothing stood out as too egregious, even after comparing their crimes. In contrast, there were four pairs of defendants who received disparate sentences, with both black defendants and white defendants being sentenced more severely twice.

Examining the white offenders who were sentenced more severely, the first offender was found guilty for his third/subsequent retail theft. The white offender stole twenty DVDs worth approximately $270 while the black offender stole six steaks that cost about $70. Examining the sentences, the white offender was sentenced to 9-18 months in prison, which was a mitigated sentence (no reason was given), while the black offender was placed on twelve months probation. This was also a mitigated sentence, with the judge stating he did so because of how young the offender was when he received his prior offense (both offenders’ PRS score was RFEL) and the relative insignificance of the offense. Examining these crimes, there is an explanation for the lower offense for the black offender. His crime was monetarily less severe than the white offenders’ crime. Further, the judge explained that his prior offense was done, one can assume, at a younger age.

A second pair of offenders was found guilty of theft (unlawful taking). The white offender stole $5000 from his stepfather’s room to support a heroin addiction. The black offender wrote a faulty money order for the sum of $7975 to buy a 1993 Honda Civic off of E-bay. The white offender was sentenced to 60 months probation, while the black offender to only 12 months probation. Both sentences were mitigated, and no reason was
given for either. Both offenders had a PRS score of one. While both sentences were mitigated, the white offender was sentenced to a significantly longer probationary period. Examining his police report, it was reported that he had tried to steal money from his stepfather before, and that he was recently fired because he failed a drug test. The black offender – while his crime was monetarily more expensive – did not have other illegal activities guiding his offense. The longer time the white offender received could be because of the nature of the offense.

There were two instances where a black offender received a more severe sentence than a white offender, and both were for the crime of burglary when no one was present. In the first, both offenders possessed a PRS of one and were found guilty through a negotiated guilty plea. The white offender broke into the house of a friend and stole his Playstation 3 and some games. He was sentenced to 12-24 months in prison, the standard range. The black offender entered a stranger’s house and stole approximately $5500 dollars worth of property, including jewelry, gold chains, a DVD player and movies, cell phones, watches, and food. He was charged with burglary, theft by unlawful taking, receiving stolen property, and criminal trespass. He was sentenced outside above the range – 24-60 months, per his plea. In this instance, it can be concluded that the black offender’s crime was more severe, with more stolen and at a higher value.

While the first burglary offered reasons for why the black defendant was sentenced more severely, the second burglary does not. The white offender was charged with and convicted of burglary and sentenced to a mitigated sentence of 24 months probation – no reason was given and he had a PRS of zero. For this crime the white offender and an accomplice broke into the home of a neighbor and stole $7000 from a
safe. He was charged with burglary, theft, receiving stolen property, and criminal conspiracy. It is not known what his mode of conviction was, but it should be noted that he did cooperate with police, turning in his accomplice. The black offender was convicted of burglary for stealing a watch. He pled guilty and was sentenced to the standard 7-14 months in prison. Examining these two offenses, it is hard to suggest why the black offender was sentenced more severely than the white offender. Cooperating with police may have helped the white offender, but his crime amounted to a greater monetary loss. Overall, about half of the crimes received similar sentences. Of those that did not, most had reasonable explanations for why one offender was sentenced more severely. Again, by following the lead of Daly (1994) and examining the police reports, one can often explain why disparities may exist. Attention is now turned to personal offenses.

**Personal offenses.**

There were nine pairs of offenders matched based on crimes against the person. The breakdown is as follows: one pair of robbery – take property with force (OGS 6), one pair aggravated assault – cause or attempt bodily injury (B.I.) police, etc. (OGS 6), two pairs of aggravated assault – cause or attempt B.I. with a deadly weapon (OGS 8), two pairs robbery – inflicts or threatens B.I. (OGS 7), one pair aggravated assault – cause serious bodily injury (S.B.I.) (OGS 11), one sexual assault (OGS 11), and one robbery – threatens S.B.I. (OGS 10).

Examining the sentences of individuals convicted of personal offenses, six of the nine pairs of offenders were sentenced quite differently. Two saw minor discrepancies in
the sentence, and only one pair of offenders were sentenced to the same punishment. For the latter, both offenders were convicted of inflicting or threatening to inflict bodily injury during a robbery. The white offender pointed a gun at the victim, while the black offender assaulted the victim then stole the money. Neither possessed a prior record, the mode of conviction was not known, and both were sentenced to 60 months probation. These crimes were similar – based on the definition of the offense – and no disparity in sentencing was witnessed.

Focusing on the two cases where there were discrepancies, in the first both were convicted of aggravated assault that caused serious bodily injury, and both offenders did not have a prior record. The white offender was one of three who assaulted an individual, punching and kicking him in the head – leading to a detached retina that caused loss of vision for the victim. The sentencing range for this offense was between 24 and 66 months, and he received a sentence of 120 months probation – outside below the range – with no reason given. The black offender was convicted of abusing his 3.5 month old daughter. The abuse consisted of sixteen fractured ribs and a skull fracture that led to bleeding of the brain and permanent neural damage. His range was from RS – 18 months in prison, for which he received 60 months probation, again a mitigated sentence with no reason given. As with the drug offenses, it is hard to analyze these findings as the judges used different guideline ranges.

The final offense that had slightly differing sentences was a pair of offenders convicted of aggravated assault – cause or attempt B.I. Neither offender had a prior record. The white offender caused bodily injury to a victim and then attacked the arresting officers. The black offender pushed and threatened to slap a teacher at school.
The white offender received 36 months probation while the black offender received 12 months probation. Examining the context of the crimes, it is fairly obvious that the white offender committed the more serious offense, explaining why his probation was longer than the black offender.

For the other six offenses, in half of the groupings the white offender was sentenced more severely, while in the other half the black offender was sentenced more severely. The first grouping of a white offender sentenced more severely than a black offender was the robbery – threatens S.B.I. pairing, with both offenders having a PRS of four. The white offender robbed a gas station attendant at gunpoint, stealing $80. He was sentenced to 48-96 months in prison, the standard range. The black offender, acting with an accomplice, broke into an individual’s house and demanded to know where his roommate was. When the roommate did not answer they tied him up, placed him in a bath tub, and threatened to drown him. They then held a gun to his head, hit him in the face, and stole his car. The black offender received a mitigated sentence of 36-72 months in prison. Both received these sentences through non-negotiated guilty pleas. While both crimes were severe, it did seem that the white offender committed an offense that was not quite as harmful as the black offender.

For the other two offense pairings, there were reasons that offered a strong argument as to why the white offender was sentenced more severely. The first was an armed robbery where the white offender robbed a Giant Eagle while the black offender was a getaway driver for his accomplice stole who a purse from an elderly woman. Further, the white offender had a warrant out for his arrest. This led to an aggravated
sentence of 36-96 months as recommended by the prosecution, for the white offender, and an outside below sentence of 12-24 months for the black offender.

In the other – an aggravated assault that caused B.I. – the white offender shot his girlfriend in the chest with a revolver, causing bodily injury. The black offender robbed a man at gunpoint and, after a woman tried to intervene, struck him in the head with the butt of his revolver. The victim needed three staples to fix the wound. The white offender received an aggravated sentence of 21-60 months while the black offender received the standard sentence of 12-24 months. Both of these offenses clearly show that, while the type of offense defined quantitatively was the same, there were drastic differences that were only witnessed qualitatively.

Three black offenders were sentenced more severely than their white counterparts. In the first, both were convicted of aggravated assault – attempting to cause B.I. with a deadly weapon. For the white offender, the police responded to a call from a woman who was being abused by her boyfriend (the offender). When they arrived the offender was carrying a knife he refused to put down. After several minutes he did, but still resisted arrest. He was sentenced to the standard 9-18 months, per his negotiated plea. The black offender also had a knife, but swung it several times at officers, who were responding to a call at his residence. He was sentenced to 18 months in prison, an aggravated sentence, per his non-negotiated guilty plea. Further, he attacked police with a deadly weapon, increasing the severity of the offense. Given the context surrounding the two crimes, it appeared as the black offender’s crime was more severe, which could explain his longer sentence.
For the second offense, both offenders were found guilty via a negotiated guilty plea for robbery – taking property by force. The white offender was one of three offenders who robbed a lady, stealing her purse and causing her to fall and cut her knee. His punishment was a mitigated sentence of 18 months probation. The black offender waited for the victim to leave an apartment complex, grabbed the victim, and stole his wallet, which contained $1000. He was sentenced to 12-23 months in prison. Because the woman received an injury, the case could be made that the white offender committed the more severe offense. However, the black offender’s crime was premeditated, making it a severe offense.

The last offense that possessed an extreme sentencing difference between the races was the sexual assault. This crime saw the greatest disparity of any pair among all three categories. The white offender was found guilty of raping his seven year old stepdaughter. She was quoted as saying, “he stuck his pee-pee inside my pee-pee and made me touch his pee-pee.” The crime was reported two years after it happened. He accepted a negotiated guilty plea, receiving a mitigated sentence of 12-23 months in prison. The black offender was found guilty – through jury trial – of raping a 28 year old female. She fell asleep on the couch and woke up to him having sex with her. She told him to stop be he stated that he could not stop because it “felt good.” When he was done he got up, apologized, and asked her not to tell anyone. He was sentenced to 54-108 months in prison. While both of these crimes are heinous, it could be argued that the rape of the child was worse, or at the very least no worse than the rape of the 28 year old. However, the black offender was sentenced to what could be 85 more months in prison than the white offender. Based on these facts, it is unclear why the black offender would
receive such a harsher sentence, although it could be that there was a jury tax. In other words, being found guilty in front of a jury can lead to harsher sentences, which may have played a role in the more severe sentence received by the black offender.

Conclusion

In general, the qualitative research suggests that for the most part sentences are fair, or there are logical arguments as to why offenders were sentenced differently. However, in all three groupings of offenses, there was at least one pair of crimes that did not possess an explanation after reading the police reports as to why a black offender (or in some cases a white offender) was sentenced more severely. Specifically, there were a total of eight instances where a black offender received a harsher sentence than a white offender who committed the same offense. Of these eight, the qualitative results suggested that there was not an acceptable explanation for why this occurred in four instances. Further, seven white offenders were sentenced more harshly. Of these seven, it was unclear why two were sentenced more severely. Overall, this supported the work of Daly (1994), in that most sentence disparities could be explained away when examining the qualitative results.

In addition, there did not seem to be support for the liberation hypothesis. Drug offenses saw disparities in five of the nine cases, meeting a requirement for the liberation hypothesis (minor offenses should see the most variation between the races as judges would feel liberated to apply more discretion), but the personal offense category had six examples of sentencing disparities. Further, the most drastically different sentence was found in the personal category, where the hypotheses suggested this difference would not
be found. In other words, there was a lot of variation between the groupings in regard to disparities in sentencing, rather than finding the predicted variations only in the less severe offenses.

Within group disparity was also examined. In other words, among the six total crimes were sentence disparities could not be explained, were the less severe crimes within each grouping the offenses that saw the disparities in sentences? The offense gravity scores for drug offenses ranged from 7-8, which does not allow for much of an examination of disparities between each OGS. However, two of the unexplained sentencing disparities had a score of 7 while one had an OGS of 8. While this does suggest that judges used their discretion when the crime was less severe, the range is not pronounced enough to draw any concrete conclusions. Both property (OGS ranged from 3-7) and personal (OGS ranged from 6-11) have a greater range of offense gravity scores, and allow for a closer examination of within group differences. The unexplained sentence disparity in the property crime group was a score of 7, lending no support to the liberation hypothesis, while the two unexplained sentence disparities came from crimes with scores of 7 and 11. Again, this does not lend much support to the liberation hypothesis. Overall, then, the liberation hypothesis was not supported when examining both between and within group differences.

Finally, it should be noted that there was no evidence of a rogue judge. Eight different judges were used in the creation of the qualitative dataset, seven males and one female. Of the six unexplained sentencing discrepancies, six different judges presided over the hearing (five males and one female). Therefore, it can be concluded that it was not one judge levying the most severe sanctions.
There are two key items that are not possessed by the researcher that could be of
great importance for future research: the sentencing transcripts and a PSI report. The
sentencing transcripts could provide the judges rationale for why he or she sentenced as
they did\textsuperscript{19}. The PSI reports (which cannot be obtained\textsuperscript{20}) often discuss their prior
offenses. In addition, they offer more background on the offender, such as number of
dependents, marital status, employment status, and the like. This information could be
invaluable when examining sentencing decisions. More research is necessary before
concrete conclusions are drawn.

\begin{enumerate}
\item The sentencing transcripts are not part of the current study. Transcripts cost $2-$3 per page and each case
could easily average ten pages, leading to an expense of thousands of dollars.
\item Each judge has to grant access to the PSI reports, as they are technically the property of that judge.
\end{enumerate}
Chapter V

Discussion

Introduction

The following chapter will examine the results of the current study. Overall, race did significantly influence the sentence outcome, but only when examining the comparison of a prison sentence to a probation sentence. It did not significantly influence receiving a jail sentence or intermediate sanctions compared to probation. Race also significantly influenced the length of sentence imposed on an offender. These findings mirrored past research, and will be examined more fully throughout the chapter.

Focusing on the qualitative supplement, there was some evidence to suggest that race could have played a role in sentencing decisions. Because of the small number of cases and the lack of sentencing transcripts it is hard to make concrete conclusions. However, highlighted in the qualitative analyses were instances when – matching on offense, sentencing judge, OGS, PRS, and number of current convictions – black defendants were sentenced more severely in eight instances, four of which could not be explained via the police reports. This will be explored in more detail as well. Finally, Chapter 5 will present the limitations of the current research and highlight future research in that should be conducted.

Sentence Outcome

The first part of the bifurcated sentencing process is the sentence outcome, or, for the current research, whether the defendant received probation, intermediate sanctions,
jail, or a prison sentence. In addition to the overall sample, black and white models were made to assess factors that may influence the sentencing outcome for white and black defendants. For the overall model, it was hypothesized that race would significantly influence the likelihood of receiving a sentence of intermediate sanctions, jail, or prison compared to probation. As the results indicated, this hypothesis was only partially supported: race only influenced receiving a prison sentence compared to probation. This finding was consistent with prior research that has concluded – when the in/out variable is dichotomous – that blacks face greater odds of receiving a prison sentence compared to probation than whites (Demuth & Steffensmeier, 2004; Spohn, 2000; Spohn & Holleran, 2000; Steffensmeier & Britt, 2001; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1998; Unnever & Hembroff, 1988). In addition, in similar research conducted that trichotomized the dependent variable, it was found that black offenders did face greater odds of receiving prison sentences than probation (Frenzel, 2005; Holleran & Spohn, 2004).

Unlike the probation compared to prison model, race did not significantly influence receiving a jail sentence or intermediate sanctions compared to probation. While this did not support the proposed hypothesis, there was some evidence in prior literature that supported this finding. As discussed in Chapter 2, the findings of research that trichotomized the sentence outcome have been mixed, especially when examining the probation compared to jail model. For example, while Frenzel (2005) concluded that blacks faced greater odds of receiving a prison sentence compared to probation, the same was not found when comparing jail and probation. Harrington and Spohn (2007) found that blacks were less likely to receive prison sentences than jail sentences compared to
white offenders, and Freiburger and Hilinski (2009) concluded that race did not significantly influence the jail compared to prison model. There is evidence to suggest then that race may play a factor when considering the type of sentencing outcome, particularly the prison decision compared to the probation decision. The current research expanded on these findings by adding a fourth category – intermediate sanctions. Race did not significantly influence this decision, nor did any other extralegal category.

Finally, OGS and PRS scores had the greatest impact. This offers further evidence that both PRS (Brennan & Spohn, 2008; Chiricos & Bales, 1991; Demuth & Steffensmeier, 2004; Freiburger & Hilinski, 2009; Holleran & Spohn, 2004; Harrington & Spohn, 2007; Nobiling et al., 1998; Spohn & DeLone, 2000; Spohn & Welch, 1987; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1993; Steffensmeier et al., 1998) and OGS (Brennan & Spohn, 2008; Demuth & Steffensmeier, 2004; Freiburger & Hilinski, 2009; Holleran & Spohn, 2004; Harrington & Spohn, 2007; Nobiling et al., 1998; Spohn & DeLone, 2000; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1993; Steffensmeier et al., 1998) are the most important variables in both the sentence outcome and the length of sentence decision.

This was not a surprising finding. The Pennsylvania Sentencing Guidelines have been constructed so that the most important factors influencing the sentencing decisions are PRS and OGS, with both being used in the matrix. As previously discussed (see Appendix B for the purpose and creation of the Pennsylvania Sentencing Guidelines), the guidelines were created to reduce unwarranted disparity in sentencing decisions. In other words, extralegal variables should not play a significant role in either sentencing decision, and the guidelines were designed to remove that temptation. Therefore, finding
that OGS and PRS were the most significant variables is a logical, unsurprising conclusion, as punishments under the guidelines are meted out based on these variables.

In addition to the overall model, two race-based models were made to examine what factors influenced the sentencing outcome and length decisions. In regard to the black model, the extralegal variables did not influence intermediate sanctions. However, young black offenders and black males were more likely to receive a jail or prison sentence compared to probation than older black offenders and black females. This mirrored much of the prior literature that suggested young offenders and black males faced the greatest odds of incarceration (Harrington & Spohn, 2007; Spohn, 2000; Spohn & Holleran, 2000; Steffensmeier et al., 1998). The findings were the same for the white sample, with young white offenders and white males most at risk to receive a jail or prison sentence compared to probation. This is not a surprise, as males usually faced greater odds of incarceration than females (Blackwell et al., 2008; Daly, 1994; Frenzel, 2005; Spohn, 1999; Spohn & Holleran, 2000; Steffensmeier et al., 1993). Further, Harrington and Spohn (2007) found that white males faced the greatest odds of receiving a prison sentenced compared to a probation sentence. For both the black and white model, however, PRS and OGS had the greatest impact on the sentence outcome imposed on a defendant, suggesting that these legal variables are most often used by judges when determining how to sentence an offender.

In addition to the findings on race, several other interesting results were witnessed. First, being sentenced under the 6th edition of the guidelines in all three samples led to the offender being more likely to receive a probation sentence compared to
a prison sentence\textsuperscript{21}. One explanation could be that those sentenced under the 6\textsuperscript{th} Edition of the Sentencing Guidelines had lower OGS and PRS, or were convicted of less serious types of crimes. However, those sentenced under the 6\textsuperscript{th} Edition had an OGS average of 5.9 and a PRS average of 2.4 while those sentenced under the 5\textsuperscript{th} Edition had an OGS average of 6.1 and a PRS average of 2.4. These differences are negligible, which would suggest that the guideline edition should not play a significant role in what the offenders were sentenced to.

However, there was some variation in the type of crimes committed. Under the 6\textsuperscript{th} Edition, 66\% of the crimes committed were property offenses, 21\% drug offenses, and 13\% personal offenses. Under the 5\textsuperscript{th} Edition 50\% of the crimes were property offenses, 32\% were drug offenses, and 17\% were personal offenses. It could be that this increase in the amount of personal offenses under the 5\textsuperscript{th} Edition played a role in both the sentence outcome and length of sentence imposed, leading to slightly more severe punishments for those sentenced under the 5\textsuperscript{th} Edition of the guidelines. On the other hand, an interesting finding in the length of sentence model was that property offenders were sentenced to slightly longer sentences than drug offenders. With the 6\textsuperscript{th} Edition having more offenders committing property offenses, one could conclude their punishments may have ended up more severe.

Because of the lack of support examining the descriptive statistics of the model, attention is turned to the two major changes between the 5\textsuperscript{th} and 6\textsuperscript{th} Edition of the guidelines that could have affected this outcome: PRS and OGS measurements were

\textsuperscript{21} Those sentenced under the 6\textsuperscript{th} Edition of the guidelines also received slightly shorter sentences in the overall and black models, and the reasoning discussed in this section also applies.
changed. Prior to the 5th Edition of the guidelines, the Pennsylvania Sentencing Guideline Commission used the concept of transaction to determine how PRS was applied to multiple offenses committed during one arrest. A transaction was defined as, “a crime or crimes which were committed by a defendant at a single time or in temporally continuous actions that are part of the same episode, event, or incident, or which are conspiracy and the object offense” (Pennsylvania Commission on Sentencing, 2005, p. 84). Under this system, only the most serious offense from a previous transaction was included in the PRS. Further the PRS was only used to determine the sentence recommendation for the most serious offense the current transaction.

However, there was inconsistency between the counties when incorporating this, so the 5th Edition created a new way to deal with multiple offenses. Specifically, each offense was considered individually wherein all previous offenses were included in PRS calculations, and the PRS was used to determine the sentences of each current offense. Because the commission felt that the original sentencing court was best suited to determine prior offense seriousness, they linked the PRS to that sentence. If that conviction led to a concurrent or consecutive sentencing then they were included in the PRS score, and if not they were not included. This was named the totally concurrent policy, and it experienced three problems (Pennsylvania Commission on Sentencing, 2005, p. 84):

1. Offense-specific information required was often not available.
2. In cases where all sentences imposed during a judicial proceeding were concurrent to previous sentences, no additional points were reflected in the PRS.
3. Subsequent sentencing decisions and credit for time served could undermine an earlier court’s intent related to PRS point assignments.

Because of these concerns, the 6th Edition attempted to make the totally concurrent policy more streamlined. Under these guidelines, the most serious offense of each judicial proceeding is included in the PRS evaluation, along with any other offense from the proceeding that led to a consecutive sentence of supervision or confinement. This could have led to the more lenient treatment of those sentenced under the 6th Edition. In other words, concurrent crimes were dropped from consideration from the PRS tabulation because of the issues faced. The 6th Edition now only includes consecutive sentences, which could lower the PRS score of offenders and thereby lead to more lenient sentences.

In regard to OGS, three minor changes were made. First, the sentence range for those who committed a crime with an OGS of 14 increased, with the statutory limit being included in that range. However, the amount of individuals in the sample who committed an offense which would result in an OGS of 14 was negligible (N = 64, or .9% of the sample), and therefore should not influence the sentence outcome. Second, the OGS score for the use or sale of Schedule II narcotic pills (such as Oxycodone) increased by a point. Again, the amount of individuals arrested for this was also negligible (N = 30), and would not have had a significant influence.22 Finally, crimes dealing with terroristic threats and weapons of mass destruction were included, but only five individuals were arrested for this (all for terroristic threats). So while it seemed that the OGS scores would

---

22 It should be noted that many drug crimes in the dataset are not labeled with the type of drug the individual was arrested for. So while this may be a larger group than reported, the researcher cannot know that.
lead to harsher sentences, because these crimes were rarely committed, they probably had no appreciable effect on the guideline impact. Therefore, it seemed that the changes in the PRS scoring led to more lenient sentences for those sentenced under the 6th Edition of the Pennsylvania Sentencing Guidelines. However, while there are qualitative differences between the 5th and 6th Edition of the guidelines in regard to the PRS, it must be noted that the PRS scores were still quite similar under both editions. So while these differences may have played a role, definitive conclusions cannot be drawn.

In sum, partial support was found for the hypothesis 1. Black offenders were more likely to be sentenced to a prison sentence compared to probation. However, race did not influence the other two comparisons, a finding that was partially supported by the literature. Also supported by prior literature was the conclusion that PRS and OGS play the most influential role in the sentence outcome decision, and that sex was a significant factor in most models, with males facing greater odds of incarceration than females (see Blackwell et al., 2008; Daly, 1994; Spohn & Holleran, 2000, Steffensmeier et al., 1993). Another legal variable – guideline edition – also played a role, with those sentenced under the 6th edition receiving more lenient treatment. While it did not seem that OGS or PRS differences played a role in this, the types of crimes committed could have. However, it is more likely that the changes between the editions had the greatest impact. Finally, extralegal variables did not play a role in the decision to sentence an offender to intermediate sanctions compared to probation in any model, suggesting that judges rely solely on legal variables when making that decision. Further, when they did play a role they were not as important as the legal variables, suggesting that OGS and PRS were the
more important variables, not surprising as the guidelines specify the sanctions based on these variables.

**Length of Sentence**

As with the sentence outcome model, three models were made to explore the impact race had on the length of sentence meted out to an offender: an overall, black, and white model. For the overall model, it was hypothesized that black offenders would receive significantly longer sentences than white offenders. As the results indicated, this hypothesis was supported: black offenders received, on average, a significantly longer sentence length by approximately six months. This was a finding supported by a wealth of prior research (Albonetti, 1991; Feldmeyer & Ulmer, 2005; Mitchell, 2005; Spohn, 2000; Steffensmeier & Britt, 2001; Steffensmeier & Demuth, 2000; Steffensmeier et al., 1998; Ulmer & Johnson, 2004). However, while race did significantly influence the length of sentence imposed, it must be noted that all significant legal variables had a greater influence on the length of sentence imposed than race, with OGS and PRS having the strongest influence (as found in the sentence outcome and the above cited research). It should be noted that race had the greatest influence among the significant extralegal variables.

As with sentence outcome, the guideline edition did significantly influence the length of sentence imposed, with those sentenced under the 6th edition receiving shorter sentences (the same was found in the black model). See the sentencing outcome discussion for why these results may have occurred.
In addition, the overall model did have one surprising finding: sex did not significantly influence the length of sentence imposed on an offender. While the majority of sentencing research had concluded that sex significantly influenced this decision (Blackwell et al., 2008; Daly, 1994; Daly & Bordt, 1995; Daly & Tonry, 1997; Freiburger & Hilinski, 2009; Rodriguez et al., 2006), two studies did not find a significant sex impact (Spohn & DeLone, 2000; Steffensmeier et al., 1993), and will be explored more fully. While Spohn and DeLone (2000) did not hypothesize why this finding occurred (their study focused on race/ethnicity), Steffensmeier et al. (1993) articulated several reasons for this finding. First, they suggested that the guidelines in place in Pennsylvania put great focus on OGS and PRS, leaving little room for discretion, thereby removing the impact sex had on sentencing decisions. Second, the authors argued that more complete controls being used in research had eliminated many of the extralegal variable impact witnessed in prior research (see also Kruttschnitt & Green, 1984). In the current research, several legal controls were used, which may minimize the effect sex had on the length of sentence imposed.

The authors also discussed why sex had a role in their in/out decision – an important discussion as the same result was found in the current research. Female offenders often had less severe prior records, or their “like” crime was not like. The departure decisions possessed by the judges in Pennsylvania allowed these factors to be taken into account, and may lead to probation rather than incarceration. Further, judges admitted to the researchers that they take other items into account, such as pregnancy, number of dependents and mental health issues. These led judges to sentence women to probation more often than incarceration. Future research should incorporate females into
the qualitative portion of this research to examine if these sentiments are still held by judges during sentencing.

Focusing on the black model, OGS and PRS had the greatest impact on the length of sentence imposed on convicted black individuals. In regard to extralegal variables sex, but not age (a finding similar to those in Freiburger & Hilinski, 2009; Nobiling et al., 1998; Spohn & DeLone, 2000), significantly influenced this decision. However, black females were sentenced longer than black males, even though their OGS (4 versus 6.5) and PRS (2 versus 2.6) averages were lower than males, and the average number of current convictions were virtually the same (1.8 for females versus 1.9 for males). While this is a surprising finding, Wooldredge, Griffin, and Rauschenberg (2005) witnessed a similar result. Examining pre- and post-guideline sentence lengths in Ohio, the researchers found that black males received sentences that were approximately two months shorter than black females, although the effect was not significant. The same finding did not hold true for the white sample.

Examining this further, Alexander (1997) argued that the “war on drugs,” coupled with prosecution aimed at ending prenatal substance abuse, had hurt black females more than any other race/sex category. He suggested that they had been targeted for selective prosecution, making black female drug offenders the largest category of women in correctional facilities. Examining the statistics of the current model, 21% of black females were convicted of drug offenses (127 out of 599 offenders), while white women were convicted for the same crime 19% of the time. Further, examining the sentence outcome, black female drug offenders were sentenced to jail or prison approximately 32% of the time, while white women were sentenced 33% of the time. The disparity
discussed by Alexander (1997) does not seem to exist in the current study. Further, black and white males were sentenced to jail or prison for drug offenses 59% and 57% of the time, respectively, suggesting that both are punished more severely for drug offenses. This was an interesting finding, but the current research does not have a definitive answer for why it occurred. Other variables may play an important role in this phenomenon not accounted for. Future research should examine this more closely in order to uncover why black females were sentenced more severely than their male counterparts.

Finally, in regard to the white model, again PRS and OGS played the most significant role in the length of sentence imposed. Unlike the prior two models, the guideline edition did not influence the sentence length of white offenders. This finding could be explained by the similarities between the OGS and PRS averages of the two editions. Specifically, the OGS average of the 5th Edition was 5.9 and the PRS average 1.6, while the 6th Edition averages were 5.6 and 1.7 respectively. In addition, the type of offense did not significantly influence the length of sentence imposed in the white model, suggesting that the type of crimes committed in each edition of the guidelines had no bearing on the sentencing.

As with the overall model, sex did not significantly influence this decision, supporting the prior work of Kruttschnitt and Green (1984), Spohn and DeLone (2000), and Steffensmeier et al. (1993). However, age did significantly influence this decision, with young white offenders sentenced more severely, supporting prior research (Crow & Bales, 2006; Steffensmeier et al., 1995; Steffensmeier et al., 1998). It is argued by focal concerns theory (see Steffensmeier et al., 1998) that judges may see young offenders as more dangerous than their older counterparts, thereby leading to more severe sanctions.
This could have been at play in the current study, as age significantly influenced the overall model as well.

A final surprising finding was that in both the overall and black model offenders who committed property offenses were sentenced longer than those who committed drug offenses. In the overall model the PRS averages for both groups of offenders was about the same (2 for drug and 2.3 for property), while the OGS average was two points higher for drug offenders (seven versus five). The averages were similar for the black population as well (PRS for drug offenses is 2.3 compared to 2.7 for property offenses and OGS is 6.7 for drug offenses and 4.9 for property offenses). It could be that property offenders in the overall model committed more offenses per arrest than drug offenders, however the averages for this were about equal as well (1.9 for drug offenders versus 2 for property offenders). The same also holds true for the black sample, with the average convicted offenses for drug offenders equaling 1.9 versus 1.6 for property offenders.

Examining the sentencing outcome models for these two samples, those who committed drug offenses were more likely to receive intermediate sanctions, a jail sentence, or a prison sentence compared to probation than property offenders. What may be occurring then, is that the property offenders who are sentenced to jail or prison are sentenced for the most severe type of conceptualized property crime (such as committing a burglary when a person is present). These crimes may carry longer sentences, on average, than the overall number of offenders who were sentenced to prison for any number of drug offenses.
In sum, hypothesis two was supported: black offenders were sentenced more severely than their white counterparts. Further, as suggested in prior research, PRS and OGS did play the most significant role in the length of sentence imposed on a defendant. There were two key findings of this analysis: Black females were sentenced more severely than black males and sex did not play a role in the overall and white model. In regard to the finding that black females were treated more severely than black males, selective chivalry hypothesis (Farnworth & Teske Jr., 1995) could explain the result. Further, support was offered by Krohn et al. (1983), who did find this race-based disparate treatment among females. As for the finding that sex did not play a role, Steffensmeier et al. (1993) suggested that the focus of the Pennsylvania Guidelines on OGS and PRS, along with more control variables, could potentially explain why this occurred.

**Qualitative Analysis**

To replicate the work of Daly (1994), police reports were read to decipher if “like” crimes possessed qualitative differences. She found that, in many instances, the crimes committed by women were less severe, helping to explain why females were sentenced more leniently than males. She had a harder time explaining the race differences she witnessed, however, so the current study utilized the same approach to compare similarly situated offenders who differed only by race. In addition, the offenses were categorized to examine if there was evidence of the liberation hypothesis, which asserts that judges are more likely to use their discretion – and thereby sentence minorities more severely – for less serious crimes (Spohn & Cederblom, 1991).
In examining just the qualitative differences of quantitatively defined “like” crimes, the current research came to similar conclusions as Daly (1994) – not all “like” crimes are the same. While the majority of the offenses in all three categories were similar, each grouping had examples of crimes that were not equal. When examining the drug offenses, the general theme was that a multitude of offenses were committed, but often a bargain of some type was struck to reduce the charges. In regard to the property offenses, there were contrasts in the crimes committed. In one instance, one offender stole a Playstation 3 and games, while the matched offender stole $5500 worth of personal belongings. Again, while these crimes are quantitatively defined as the same (as to the offense charge and OGS), they are contextually, thus qualitatively, different. Even the personal offenses highlighted differences, with one assault consisting of the victim being hit in the head with a gun, while the matched offender had shot the victim. Finally, there was no evidence of a rogue judge meting out the unexplained sentencing disparities. Six different judges contributed to the six different examples of these unexplained disparate sentences. Overall, this was consistent with the work of Daly (1994), and suggested that examining sentencing based solely on the statutorily defined type of crime or offense seriousness does not allow a researcher to really understand why there may be sentencing differences.

Contrary to the work of Spohn and Cederblom (1991), there was no support for the liberation hypothesis. Sentencing disparities were seen in all three offense groupings, with the most severe coming in the personal offense category (where, according to the theory, disparities should not be witnessed as often because of the serious nature of the
offense). While this is a small qualitative sample and sweeping conclusions cannot be drawn, a preliminary qualitative examination of this theory holds little support.

While this examination does offer more support for examining sentencing decisions at a qualitative level, there are too many unknowns to draw any conclusions on racial biases in the sentencing process. What can be acknowledged is that quantitatively “like” crimes are quite often qualitatively different. In fact, in order for research to offer a more complete explanation of disparities in sentencing the context surrounding the crime must be examined.

**Limitations and Future Research**

While this research tried to expand the sentencing research by including qualitative analysis of police reports, there are several limitations in both the quantitative and qualitative analyses. The most glaring limitation was not being able to control for mode of conviction in the quantitative supplement. Prior sentencing research has concluded that mode of conviction (the way in which a person is found guilty) significantly influences both the sentence outcome (Freiburger & Hilinski, 2009; Holleran & Spohn, 2000; Holleran & Spohn, 2004; Nobiling et al., 1998; Spohn & DeLone, 2000) and the length of sentence imposed on the offender (Demuth & Steffensmeier, 2004; Engen & Gainey, 2000; Everett & Wojtkiewicz, 2000; Spohn & DeLone, 2000; Steffensmeier & Demuth, 2001; Steffensmeier et al., 1998). However, because of missing data, mode of conviction could not be included in the current quantitative analyses, or accounted for in the qualitative analysis at times. Future research should take this variable into account.
In addition, employment status has also been found to have an impact on the sentencing decision (see Spohn & Holleran, 2000). However, the data used did not possess this variable. More current PA datasets (2007 and above) have added this variable into the dataset. Future research should be conducted examining the impact this variable has on Pennsylvania sentencing decisions.

In regard to the qualitative analysis, sentencing transcripts are a necessity to examine the potential impact race may play on the sentencing decision. It is nearly impossible to deduce its role using just the police reports and guideline data. Not having access to the transcripts did not allow for a complete examination of the role race plays. In addition, obtaining access to PSI reports could offer a wealth of information as to what variables influence the sentencing decisions, but unfortunately access was not authorized by the Allegheny Courts. These reports, as stated, have valuable information not contained in the Pennsylvania Sentencing Guideline data, such as number of dependents, employment status, nature of past offenses, and the like. This data would serve two purposes. First, it will offer more qualitative data that will allow for an in-depth description of the sentencing process. Second, these variables could be built in to a quantitative dataset, expanding the existing literature.

The final limitation is that the current qualitative study did not have any matched female offenders in the analysis. However, not enough females committed violent offenses, and therefore they were omitted from the analyses. Future research should try to incorporate females into the qualitative analysis. This would serve two purposes: it will allow for an assessment of sex-based differences in sentencing decisions and it could analyze interaction effects qualitatively.
In sum, while the current research offered a more detailed examination of sentencing decisions, it was not without its limitations. Not including both mode of conviction and employment status is a flaw that must be acknowledged when the quantitative results are analyzed. Further, not obtaining access to two key pieces of qualitative data handicaps any interpretation of the role race played in regard to qualitative analyses. Finally, including sex in future qualitative analyses is necessary to continue to examine the race/sex interaction. However, this project is a good first step in expanding sentencing research.

Future research should try to address many of these problems. More recent Pennsylvania data may have mode of conviction imputed and employment status is included. These are vital variables to examine, and will be taken into account. In addition, creating male and female matched pairs will offer a more complete examination of the influence race, sex, and their interaction have on sentencing decisions.

Conclusion

The current research attempted to expand the sentencing literature by examining the sentencing decision both quantitatively and qualitatively. As Daly (1994) suggested, much of the sentencing disparities witnessed quantitatively can be explained qualitatively because – in many instances – crimes that are defined as “like” possess differences, and sometimes drastic differences.

This research attempted to expand on her findings by analyzing the role race played instead of sex. Quantitatively, partial support was found for the sentence outcome hypotheses: race did significantly influence the decision to send an offender to prison
over probation but it did not influence any other comparison. Further, race did significantly influence the length of sentence imposed on an offender, but it was not as important as any of the legal variables. These findings mirror much of the past sentencing literature, which also finds that race does significantly influence both sentencing decisions.

The current research, then, wanted to provide a next step to sentencing research. Police reports were analyzed to determine if quantitatively defined like crimes were qualitatively different. Three pairs of offenses were created: drug, property, and personal. Many of the crimes were similar, but there were also examples of crimes that could be defined as qualitatively different. In most instances, the individual who committed the qualitatively defined more severe offense was punished more severely. This explained much of the sentencing disparity. However, there were instances when the more severe offender was punished less severely, and in some instances that offender was black. However, without supplementary qualitative data – such as the sentencing transcripts – no concrete conclusion can be made about the role race played in the sentencing decision.

Future research, then, should attempt to answer this question qualitatively by acquiring both the sentencing transcripts of these matched offenders and the PSI reports. Transcripts would allow for a continuation of the Daly (1994) study by examining if any latent content exists that suggests the judges dealt with black offenders differently. PSI reports should be analyzed to determine if there are other important variables missing in both the quantitative and qualitative analyses that explain sentencing disparities. Both could create a more complete picture of the sentencing decision, and should add to the existing sentencing literature.
Overall, this research offered more quantitative support that race does play some significant role in both stages of the bifurcated sentencing process and offers a first step of analyzing its role qualitatively. Future research should expand on the qualitative analysis to hopefully offer a more complete picture of the sentencing decision, and the role this extralegal variable plays in it.
References


Roncek, D. W. (1993). When will they ever learn that first derivates identify the effects of continuous independent variables or “officer, you can’t give me a ticket, I wasn’t speeding for an entire hour.” *Social Forces, 71*, 1067-1078.


APPENDIX A: Literature Review Table

<table>
<thead>
<tr>
<th>Author (Year)</th>
<th>Sample</th>
<th>Theory</th>
<th>Dependent Variable(s)</th>
<th>Independent Variables(^{23})</th>
<th>Race Measurement</th>
<th>Findings of Race Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albonetti (1997)</td>
<td>14,189 Federal drug offenders</td>
<td>Uncertainty avoidance/causal attribution</td>
<td>Length of Sentence</td>
<td>Sex* Education Guilty plea Citizen* Departure* Type of drug offense* Court Circuit* Total criminal history points* Guideline offense level* Number of counts</td>
<td>White Black Hispanic</td>
<td>Blacks longest LOS</td>
</tr>
<tr>
<td>Auerhahn (2007)</td>
<td>1,137 Homicide cases from</td>
<td>An integration of theories</td>
<td>Length of the minimum sentence imposed</td>
<td>Type of homicide* Firearm used* Number of charges*</td>
<td>White Black Hispanic</td>
<td>No direct race effects, but young black and</td>
</tr>
</tbody>
</table>

\(^{23}\) Significant variables will be marked with *
<table>
<thead>
<tr>
<th>Brennan &amp; Spohn (2008)</th>
<th>Random sample of 457 drug offenders from NC</th>
<th>N/A</th>
<th>In/out (community punishment v. intermediate punishment v. incarceration)</th>
<th>County facility* Year adjudicated Guilty plea Jury trial Bench trial* Detained pretrial* Type of attorney Age of offender (dichotomous)* Race/ethnicity of victim Victim/offender relationship Drunk driver Race/ethnicity and detained pretrial*</th>
<th>Hispanic males detained before trial receive harsher sentences.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philadelphia (including causal attribution and conflict)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24 Only for intermediate punishment v. community punishment
<table>
<thead>
<tr>
<th>Number of indictment charges*&lt;sup&gt;25&lt;/sup&gt;</th>
<th>Chen (2008)</th>
<th>171,163 felony offenders housed in the CA prison system on August 31, 2006</th>
<th>Liberation Hypothesis</th>
<th>Presence or absence of a third strike</th>
<th>Sex*</th>
<th>Age</th>
<th>Commitment county</th>
<th>Immigrant status*</th>
<th>Current offense(s)*</th>
<th>Probation or parole status*</th>
<th>Prior serious offenses*</th>
<th>Prior violent offenses*</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Asian</th>
<th>American</th>
<th>Indian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chiricos &amp; Bales (1991)</td>
<td>2,773 defendants from two Florida counties</td>
<td>N/A</td>
<td>In/out (two measures: in jail before trial v. not and sentenced to jail/prison v. not after trial)</td>
<td>Employment status*&lt;sup&gt;26&lt;/sup&gt;</td>
<td>Age*&lt;sup&gt;27&lt;/sup&gt;</td>
<td>SES*&lt;sup&gt;28&lt;/sup&gt;</td>
<td>Type of attorney*&lt;sup&gt;29&lt;/sup&gt;</td>
<td>Crime seriousness*&lt;sup&gt;30&lt;/sup&gt;</td>
<td>Number of charges*&lt;sup&gt;31&lt;/sup&gt;</td>
<td>Prior felony arrests*&lt;sup&gt;32&lt;/sup&gt;</td>
<td>White</td>
<td>Black</td>
<td>Hispanics</td>
<td>Asian</td>
<td>American</td>
<td>Indian</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

25 Not for intermediate punishment v. incarceration  
26 Not significant for length of sentence after trial  
27 Only significant for jail time before trial  
28 Only significant for the in/out decision after trial  
29 Not significant for length of sentence after trial  
30 Not significant for the in/out decision after trial  
31 Not significant for length of sentence after trial  
32 Not significant for the in/out decision after trial  

Blacks and American Indians have greater odds of incarceration than whites. 
Race/ethnicity played a greater role in charging of less serious offenses (property and drug crimes), supporting the liberation hypothesis.
The interaction of race and unemployment significantly increases the likelihood of imprisonment and for black defendants.

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size/Description</th>
<th>Measured Variables</th>
<th>Significant Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew (1991)</td>
<td>228 Kentucky felons</td>
<td>Number of continuances(^{33})</td>
<td>The interaction of race and unemployment significantly increases the likelihood of imprisonment and for black defendants.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Length of sentence</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Charge severity*</td>
<td>Black offenders received longer sentences than similarly situated white offenders.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prior record*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pretrial release</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Guilty plea*</td>
<td></td>
</tr>
<tr>
<td>Crow &amp; Bales (2006)</td>
<td>345,037 cases from the 1983 FL guidelines; 352,988 from the 1994 FL guidelines</td>
<td>In/out (community supervision v. prison) Length of Sentence</td>
<td>Policy changes have removed race disparity in sentencing decisions, but not ethnic disparity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Offense seriousness*</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Offense type*</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Felony offense level*</td>
<td>Hispanic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attempted or completed crime*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of counts sentenced*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prior record (measured five ways)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application of mandatory minimum provision</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sex*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Age*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Judicial circuit</td>
<td></td>
</tr>
</tbody>
</table>

\(^{32}\) Not significant for length of sentence before trial  
\(^{33}\) Not significant for the in/out decision after trial  
\(^{34}\) For this study there were eight measures of offense type ( * denotes a significant measure): murder*, sex*, robbery*, violent-other*, burglary* (not sig in 1983 guidelines), drugs* (only sig for 1983 in/out decision), weapons*, other*
<table>
<thead>
<tr>
<th>Demuth &amp; Steffensmeier (2004)</th>
<th>9,582 defendants</th>
<th>Focal Concerns</th>
<th>In/out (probation v. jail and prison)</th>
<th>Offense severity*</th>
<th>Non-Hispanic White Non-Hispanic Black Hispanic</th>
<th>Blacks most likely to be incarcerated. No significant difference was found in length.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days of jail credit*</td>
<td>Employment status*&lt;sup&gt;35&lt;/sup&gt;</td>
<td>Length of Sentence</td>
<td>Criminal history*</td>
<td>Mode of Conviction*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Everett &amp; Wojtkiewicz (2002)</td>
<td>59,250 federal offenders</td>
<td>Uncertainty avoidance</td>
<td>Whether the defendant’s sentence fell in the first, second, third, or fourth quarter of the sentencing range</td>
<td>Sex*</td>
<td>Non-Hispanic White Non-Hispanic Black Hispanic</td>
<td>Blacks, Hispanics, and Native Americans are sentenced more harshly than whites, and offense-related characteristics offer only a partial explanation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Age*&lt;sup&gt;36&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Alien status*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Education*&lt;sup&gt;37&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Offense type*&lt;sup&gt;38&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Offense level*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Criminal history*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plea status*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acceptance of responsibility*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Region for court*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feldmeyer &amp; Ulmer (2011)</td>
<td>Individual-level federal sentencing data from USSC 2000-2002. Contextual data from USSC case-level</td>
<td>Racial Threat (found no support for it and suggest the findings support)</td>
<td>Length of Sentence</td>
<td>Age*</td>
<td>White Black Hispanic</td>
<td>Found that blacks and Hispanics sentenced more severely at the federal level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sex*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Number of dependents*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Years of education*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>US citizen*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acceptance of responsibility*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Downward departure*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>35</sup> Not significant in the 1983 length of sentence decision

<sup>36</sup> Only those less than 30 and 50 and older

<sup>37</sup> Less than high school, GED, and college graduate

<sup>38</sup> All offense types were significant
sentencing data and US Census data.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type of Offenders</th>
<th>Data Collection Methods</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freiburger &amp; Hilinski (2009)</td>
<td>2,011 felony offenders from an urban Michigan county</td>
<td>In/out (probation v. jail v. prison) Months in jail Months in prison</td>
<td>Age*(^{40}) Sex*(^{41}) Prior record* Offense severity*(^{42}) Pretrial status* Type of conviction charge*(^{43}) Mode of conviction*(^{44})</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frenzel (2005)</td>
<td>2,440 nonviolent offenders</td>
<td>In/out (measured three ways: 1. dichotomous (jail/prison v. probation) 2. dichotomous (jail/probation v. prison) 3. trichotomous</td>
<td>Sex*(^{45}) Age Prior felony convictions*(^{46}) On probation at time of arrest*(^{47}) Number of codefendants*(^{48}) Private attorney*(^{49})</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{39}\) Except property offenses
\(^{40}\) For prison rather than jail; not for length of sentence
\(^{41}\) For probation rather than jail and for jail length of sentence
\(^{42}\) For prison rather than jail and all length of sentence
\(^{43}\) For prison rather than jail; for prison length of sentence
\(^{44}\) For prison rather than jail; for prison length of sentence
\(^{45}\) Sig for total incarceration dependent variable and it was significant in the jail v. probation trichotomous dependent variable model
\(^{46}\) Sig for the prison/no prison dependent variable and the jail v. probation trichotomous dependent variable model
\(^{47}\) Sig for the prison/no prison dependent variable and the prison v. probation trichotomous dependent variable model
\(^{48}\) Sig for total incarceration dependent variable and it was significant in the prison v. probation trichotomous dependent variable model

**Total incarceration model:** Blacks, but not Hispanics, more likely than whites to receive a term of incarceration.
<table>
<thead>
<tr>
<th>Harrington &amp; Spohn (2007)</th>
<th>1,487 felony offenders in a Midwestern County</th>
<th>N/A</th>
<th>In/out three measures: 1. jail or prison v. probation</th>
<th>Age</th>
<th>Sig for all but the jail v. probation trichotomous dependent variable model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig for the prison v. probation trichotomous dependent variable model</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig for prison/no prison dependent variable and all trichotomous measures</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig for prison/no prison dependent variable and it was significant in the prison v. probation trichotomous dependent variable model</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig for prison/no prison dependent variable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig for the total incarceration dependent variable and the jail v. probation trichotomous dependent variable model</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig for prison/no prison dependent variable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig for all models except for offender sentenced to prison rather than jail</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig for the total incarceration dependent variable and the jail v. probation trichotomous dependent variable model</td>
</tr>
</tbody>
</table>

*Sig for all models except for offender sentenced to prison rather than jail

**Trichotomized:**
Black and Hispanic offenders more likely than white offenders to receive prison than probation; no differences in jail v. probation.

**Prison/No prison model:**
Black and Hispanic offenders more likely to receive prison over probation than whites.
## In/out (probation v. jail v. prison)

| 2. jail or probation v. prison | Prior violent convictions | Harsher than whites. |
| 3. probation v. jail v. prison | Number of charges filed*59 | Blacks more likely to receive jail over probation, but less likely to receive prison than jail. |
|                               | Number of convictions charges*60 | Black males least likely group to be placed on probation. |
|                               | Violent offense                    |                             |
|                               | Drug offense*61                    |                             |
|                               | Property offense*62                |                             |
|                               | Pled guilty                        |                             |
|                               | In custody before trial*63         |                             |

**Notes:**

*58 Sig for all models

*59 Sig for offender sentenced to prison rather than jail or probation and sentenced to prison rather than jail

*60 Sig for all models except offender sentenced to probation rather than jail

*61 Sig for all models except offender sentenced to jail or prison rather than probation

*62 Sig for all models except offender sentenced to jail or prison rather than probation

*63 Sig for all models except offender sentenced to prison rather than jail

---

Holleran & Spohn (2004)  
PA sentencing data from Philadelphia county (4026 cases)  
N/A  
In/out (probation v. jail v. prison)  
OGS*  
PRS*  
Mode of conviction*  
Trial v. Plea*  
Violent*  
Property*  
Drug  
Sex*  
Age*  
White  
Black  
Hispanic  
The dichotomous model masked race/ethnic influences  
Odds of a prison sentence higher for blacks and Hispanics than whites.
Whites who committed serious crimes were more likely to be sent to jail than prison, compared to blacks and Hispanics.

**Kramer & Lubitz (1985)**

<table>
<thead>
<tr>
<th>Study Details</th>
<th>Sample Size</th>
<th>Variables</th>
<th>Findings</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre- and post-guideline offenders convicted of four crimes: aggravated assault, rape, burglary, and robbery</td>
<td>N/A</td>
<td>In/Out (incarcerated v. not) Length of sentence</td>
<td>This study just looked at race on its own. It was a comparison of pre- and post-guideline data that answered specific questions about their effectiveness.</td>
<td>White Nonwhite Nonwhites more likely to be incarcerated than whites, and for longer. However, after further calculations of increased OGS and PRS scores for minorities, they concluded there was no racial disparity.</td>
</tr>
</tbody>
</table>

**Kramer & Ulmer (2009)**

<table>
<thead>
<tr>
<th>Study Details</th>
<th>Sample Size</th>
<th>Variables</th>
<th>Findings</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>178,100 offenders from PA (data from 1997-2000)</td>
<td>They discuss a multitude of theories in this book, including Focal Concerns</td>
<td>In/out (odds of jail v. odds of prison) Length of Sentence</td>
<td>Age* Sex* Prior record* Offense severity*</td>
<td>White Black Hispanic Hispanics face greatest odds of jail incarceration, followed by blacks. Hispanics face greatest odds of</td>
</tr>
</tbody>
</table>
Black and white offenders identical. Hispanics receive the longest sentence, followed by blacks. Old Hispanic males sentenced most severely.

<table>
<thead>
<tr>
<th>Leiber &amp; Blowers (2003)</th>
<th>1,757 misdemeanor cases</th>
<th>Liberation Hypothesis</th>
<th>Case status (priority v. nonpriority)</th>
<th>Continuance (no v. yes)</th>
<th>Conviction (no v. yes)</th>
<th>Incarceration (no v. yes)</th>
<th>Race did not directly affect the conviction and incarceration decisions but did so indirectly through case status and continuance.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Focal Concerns</td>
<td>Sex*64</td>
<td>Age*65</td>
<td>Crime type*66</td>
<td>Weapon use</td>
<td>White Black</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Property loss*67</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Prior arrest*68</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Victim a stranger*69</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Victimless*70</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Evidentiary evidence*71</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Number of witnesses*72</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

64 Sig for continuance (full model and white model) and incarceration (full model and black model)
65 Sig for continuance only (full model and black model)
66 Two types: assault (sig for all three status models, conviction full and black model, and all incarceration models) and theft (sig for all three status models, and all three incarceration models)
67 Sig for status (white model only), continuance (full model and white model), and conviction (white model only)
68 Sig for status (full model and black model) and incarceration (full model and black model)
69 Sig for status (for all models) and conviction (for all models)
70 Sig for status (for all models) and conviction (full model and white model)
71 Sig for status (for all models) and conviction (white model only)
72 Sig for status (white model only)
<table>
<thead>
<tr>
<th></th>
<th>Procedure counsel*73</th>
<th>Continuance (yes)*74</th>
<th>Status (priority)*74</th>
<th>Procedural counsel*73 Status (priority)*74 Continuance (yes)*75</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meithe &amp; Moore</strong></td>
<td></td>
<td></td>
<td></td>
<td>No support for liberation hypothesis but did support focal concerns</td>
</tr>
<tr>
<td>(1986)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,659 felony offenders</td>
<td>Negotiation of</td>
<td>Sex*76</td>
<td>White Black</td>
<td>No direct race effects on sentencing.</td>
</tr>
<tr>
<td>in Minnesota</td>
<td>charges</td>
<td></td>
<td></td>
<td>Blacks who were single, lived in urban areas, have a prior felony record, and commit multiple serious offenses were all sentenced more harshly than whites.</td>
</tr>
<tr>
<td></td>
<td>Negotiation of</td>
<td>Single*77</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sentences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severity of</td>
<td>Employment*78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>convicted offense</td>
<td>Education*79</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stay or execute</td>
<td>Weapon involved*80</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sentence</td>
<td>Number of offenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Length of</td>
<td>read into initial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sentence</td>
<td>complaint*81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Severity of most</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>serious charge*82</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type of counsel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>County processed*83</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Myers &amp; Talarico</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1986)</td>
<td>In/out (probation</td>
<td>Sex*78</td>
<td>White Black</td>
<td>Examined mainly</td>
</tr>
<tr>
<td>16,798 Georgia felons</td>
<td>v. prison)</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

73 Sig for continuance (for all models) and incarceration (for all models)
74 Sig for conviction (for all models) and incarceration (full model and black model)
75 Sig for conviction (for all models) and incarceration (for full model)
76 Sig for charge reduction (whites only), convicted severity, and stayed sentence
77 Sig for charge reduction, sentence negotiation (whites only), convicted severity (whites only), stayed sentence (whites only), and length of sentence
78 Sig for stayed sentence
79 Sig for sentence negotiation and stayed sentence
80 Sig for sentence negotiation, convicted severity (whites only), and length of sentence (whites only)
81 Sig for charge reduction (whites only), sentence negotiation, and length of sentence
82 Sig for charge reduction, sentence negotiation, and convicted severity
83 Sig for charge reduction (whites only), sentence negotiation (whites only), convicted severity (whites only), stayed sentence (whites only), and length of sentence (whites only)
| Nobiling, Spohn, & DeLone (1998) | comparable sample of 1,685 drawn from two other counties | Length of Sentence | Marital status | Employment status | Urban background | Georgia native | Type of crime* | Offense seriousness* | Conviction charges* | Prior arrests* | Urbanization | Black income inequality | Racial composition* | Index crime rate | Percent index involving weapons | Percent index involving strangers | Percent black arrestees | interactive effects. In/out decision varied depending on what “race” was paired with. |}

| 3,991 defendants from two jurisdictions (2,533 from Chicago; 1,458 from Kansas City) | Conflict (social dynamite) | In/out (jail or probation v. prison) | Length of Sentence | Employment status* | Sex* | Age | Offense seriousness* | Prior record* | On probation* | Type of attorney | Pretrial release* | Guilty plea* | White | Black | Hispanic (in Chicago only) | In/out | Only sig in Chicago, with Hispanics and blacks more likely to be incarcerated |}

| 84 Only in KC for in/out; only Chicago for length of sentence |
| 85 Only for the in/out decision |
| 86 Twelve offenses were examined: murder, rape, robbery, aggravated assault, burglary, weapons offenses, larceny/theft, motor vehicle theft, possess of narcotics with intent, other drug offenses, other property offenses, other felony. None were significant for the in/out decision in Chicago and all but three (rape, robbery, and aggravated assault) were significant in KC. For length of sentence, murder, rape, motor vehicle theft, possess narcotics with intent, and other drug offenses were significant for length of sentence, and all offenses (murder was not included) were sig in KC |
| 87 Only for the in/out decision |
| 88 Not significant for length of sentence in KC |
| Spohn & Cederblom (1991) | Convicted offenders in Detroit | Liberation Hypothesis | In/out (incarcerated v. not) Estimated minimum sentence (EMS) | Age* Prior felony convictions* 1st degree murder* 2nd degree murder* Manslaughter* Robbery* Rape* Other sexual offense* Assault* Number of conviction charges* Gun present* Victim injured* Victim a stranger* Private attorney* Jury* | White Black | No significant impact

**Interactions**

Unemployment increases the likelihood of incarceration for minorities only in Chicago

---

89 Only significant in KC
90 Significant for EMS only
91 Significant for in/out only
92 Significant for in/out only
93 Significant for EMS only
94 Significant for EMS only
95 Significant for in/out only
<p>| Study                  | Number of defendants in jurisdictions | Race | In/out (no prison v. prison) | Length of Sentence | Sex | Age | Prior record (six measures) | Offense Seriousness (three measures) | On probation | Type of attorney | Pretrial release | Guilty plea | Race of judge | Pretrial release* | Race of judge* | Guilty plea | Pretrial release* | Race of judge* | Guilty plea | Pretrial release* | Race of judge* | Guilty plea | Pretrial release* | Race of judge* | Guilty plea | Pretrial release* | Race of judge* |
|-----------------------|--------------------------------------|------|-----------------------------|--------------------|-----|-----|----------------------------|-------------------------------------|-------------|----------------|----------------|-------------|---------------|----------------|----------------|-------------|----------------|----------------|-------------|----------------|----------------|-------------|----------------|----------------|
| Spohn &amp; DeLone (2000) | 7,279 defendants in three jurisdictions (2,983 in Chicago; 2,720 in Miami; 1,576 in Kansas City) | N/A  |                           |                    |     |     |                           |                                     |             |               |               |             |               |               |               |              |               |               |             |               |               |               |               |               |               |               |</p>
<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Variables</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spohn, Gruhl, &amp; Welch (1981-1982)</td>
<td>2,366</td>
<td>N/A</td>
<td>In/out (no prison v. prison) Length of sentence</td>
</tr>
<tr>
<td></td>
<td>defendants in Metro City, selecting the maximum charge of 14 offenses</td>
<td>Charge Prior record Type of attorney Type of plea Evidence of charge reduction Bail amount Pretrial bail status</td>
<td>White Black Black defendants are more likely to receive a prison sentence. No direct effects of race on length of sentence, but indirectly influences it through pretrial release and type of attorney.</td>
</tr>
<tr>
<td>Spohn &amp; Holleran (2000)</td>
<td>6,638</td>
<td>Focal Concerns</td>
<td>Sex* Age* Employment status* Most serious conviction charge* Class of most serious conviction charge*</td>
</tr>
<tr>
<td></td>
<td>defendants in three jurisdictions (2,510 in Chicago; 2,703 in Miami;</td>
<td>In/out (Sentenced to prison or not)</td>
<td>No interactions: In Chicago Hispanics were the most likely to be imprisoned, followed by</td>
</tr>
</tbody>
</table>

---

104 Not sig in Miami  
105 Only sig in KC
<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Description</th>
<th>Number of Current Felony Convictions*</th>
<th>Type of Attorney</th>
<th>On Probation*</th>
<th>Pretrial Release*</th>
<th>Pled Guilty*</th>
<th>Race of Judge*</th>
<th>White Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steffensmeier &amp; Britt (2001)</td>
<td>10 Black male judges (4,734 sentencing decisions) and 80 white male judges (34,668 sentencing decisions)</td>
<td>N/A</td>
<td>In/out (prison v. non-prison)</td>
<td>Length of Sentence</td>
<td>Race of Judge*</td>
<td>White Black</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

106 Not sig in Chicago  
107 Only sig for in/out  
108 Only sig for length of sentence  
109 Only sig for length of sentence  
110 Only sig for in/out  

blacks, then whites. Hispanics were more likely to be incarcerated than whites in Miami. No differences in KC. **Interactions:** Young, unemployed, black and Hispanic males face greater odds of incarceration.

White offenders are less likely to be incarcerated than black offenders and receive shorter prison terms.
<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Description</th>
<th>Focal Concerns</th>
<th>Variables</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steffensmeier &amp; Demuth (2000)</td>
<td>Males sentenced in Federal courts from 1993 to 1996 (N = 89,637)</td>
<td>In/out (percentage imprisoned) Length of sentence</td>
<td>Age*&lt;sup&gt;111&lt;/sup&gt; Education*&lt;sup&gt;112&lt;/sup&gt; Prior record* Offense severity* Percentage with* multiple convictions Percentage went to trial* Percentage with gun conviction*&lt;sup&gt;113&lt;/sup&gt;</td>
<td>White Hispanic</td>
</tr>
<tr>
<td>Steffensmeier &amp; Demuth (2001)</td>
<td>96,000 offenders</td>
<td>In/Out (prison/jail vs. probation) Length of Sentence</td>
<td>Age* Offense severity* Prior record* Multiple convictions*&lt;sup&gt;114&lt;/sup&gt; Mode of conviction* Offense type*</td>
<td>White Hispanic</td>
</tr>
<tr>
<td>Steffensmeier, Ulmer, &amp; Kramer (1998)</td>
<td>Approximately 139,000 offenders from PA from 1989-</td>
<td>In/out (incarcerated v. not) Length of</td>
<td>Age*&lt;sup&gt;115&lt;/sup&gt; Sex* Offense severity* Offense type*</td>
<td>White Black</td>
</tr>
</tbody>
</table>

<sup>111</sup> Except for drug length of sentence  
<sup>112</sup> Except for nondrug in/out  
<sup>113</sup> Not used in the in/out decision  
<sup>114</sup> Not sig for the in/out decision of a drug offense  
<sup>115</sup> The authors state that all the variables were sig due partly to the large N
<table>
<thead>
<tr>
<th>Ulmer &amp; Johnson (2004)</th>
<th>Individual level sentencing data and contextual county data from PA</th>
<th>Focal Concerns</th>
<th>In/out (incarcerated v. not) Length of sentence</th>
<th>Severity of the current(^{116}) offense Offense type Prior record Presumptive guideline sentence Presence of mandatory minimums Sex Age Mode of conviction Court size Judicial caseload Trial rate Available incarceration capacity County poverty rates Amount of crime in the county Type of crime in the county</th>
<th>White Black Hispanic</th>
<th>The main significant race/ethnicity finding was that blacks and Hispanics were given longer sentences in counties where their populations were greater.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unnever, Frazier, &amp; Henretta (1980)</td>
<td>Data collected from PSI reports from Florida</td>
<td>N/A</td>
<td>In/out (probation v. incarceration) Age* Sex Employed* Marital status Education</td>
<td></td>
<td>White Black</td>
<td>Whites more likely than blacks to receive probation</td>
</tr>
</tbody>
</table>

\(^{116}\) All of these variables were significant at some point in the analysis. However, the pertinent finding on race/ethnicity can be seen in the final column.
<table>
<thead>
<tr>
<th>Unnever &amp; Hembroff (1988)</th>
<th>313 male drug offenders in Florida.</th>
<th>Expectation states theory</th>
<th>In/out (prison v. not prison)</th>
<th>Professional</th>
<th>Unemployed*</th>
<th>Prior convictions*</th>
<th>Opium Selling drugs*</th>
<th>Number of arrest charges*</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hispanics the group most likely to be incarcerated for a drug crime. Whites least likely.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: History of the Pennsylvania Sentencing Guidelines

PA Sentencing Guidelines

Introduction

Pennsylvania is one of eighteen states that currently utilize sentencing guidelines to sentence those convicted of an offense (Nicholson-Crotty, 2004). As such, it is important to briefly examine the sentencing guidelines employed by the state of Pennsylvania.

Purpose and Creation

Federal sentencing guidelines served as an important outline for the states in their own guideline creation, and specifically Pennsylvania. In 1978, Act 319 created the Pennsylvania Commission on Sentencing, which had a goal of developing and disseminating sentencing guidelines for Pennsylvania. However, unlike the federal guidelines, the main reason for the creation of the guidelines was not to lessen sentence disparity. In addition, Pennsylvania had no real desire to be at the forefront of the sentencing reform movement. Rather, Pennsylvania wanted to adopt sentencing guidelines in an attempt to avoid legislation that would create mandatory minimum sentencing. Many feared that this would have severely restricted judicial discretion – more so than even sentencing guidelines. In addition, Senator O’Pake outlined two major problems he hoped sentencing guidelines would alleviate: “judge shopping,” which in some counties resulted in lenient sentences, even for repeat violent offenders, and the lack of uniformity in the state across all counties (Kramer & Ulmer, 2009, p. 17). With these issues in mind, the commission set out to create the sentencing guidelines.

The commission, comprised of criminologists, district attorneys, defense attorneys, judges, and legislators, first set out to understand the complexities of sentencing. They did so by examining pre-sentence reports that judges commonly utilized to aid their sentencing decisions. With these, the commissioners sentenced sample defendants, ranking the information they used
in the process. With this task completed and a more thorough understanding of the sentencing process gained, the commission then surveyed judges, district attorneys and public defenders. The survey had two formal purposes and one informal one. First, they wanted to gain input on the form the guidelines should take. Second, the survey gathered information on the role of various sentencing factors, including criminal history, offense factors, and offender characteristics such as age, employment status, and educational history (Kramer & Ulmer, 2009). In regard to the former, the majority of respondents wanted a matrix model. For the latter, the two key factors were offense severity and criminal history. Informally, the survey also alerted respondents to the work of the commission. This would ensure that they would not be surprised when the guidelines were submitted for public comment.

Once this data was collected the commission first worked on how to appropriately measure offense severity. Rather than relying on the current statutory grades, the commission created an offense severity subcommittee that was tasked with creating a new offense ranking system. The commission agreed on a ten-point scale that considered the offense of conviction, along with the culpability of the offender and any injury sustained by the victim (Kramer & Ulmer, 2009). Specifically, one point was added for any serious bodily injury, while one other point could be added for use of a weapon. One point could also be subtracted for attempted, solicited, or conspired crimes. In total then, the offense severity scale could reach twelve, but the most serious offense was scored a ten.

With the work on offense severity completed, the commission focused their attention on how to incorporate the criminal history of the defendant. The legislation that was enacted to create the guidelines mandated that prior record be taken into account, but several commissioners believed that social stability factors should have been incorporated as well. These included such
items as educational attainment and employment history. Commissioners wanted these items because they feared that no mitigating factors were being taken into account, and therefore guidelines were being created that may be too severe. However, two main reasons emerged from the meetings that effectively dropped social stability variables from consideration. First, it was argued that these elements were highly correlated with race, social status, and economic advantage. As a consequence, disparity would indirectly be incorporated into the guidelines. Second, judges who responded to the survey did not agree that these variables were important in sentencing decisions (Kramer & Ulmer, 2009).

Once this debate was settled, the commission set out to decipher on how to best incorporate prior record into the sentencing guidelines. They decided to divide prior felonies into three categories, and misdemeanors into two. Each category reflected the severity of the previous convicted offense. They were then combined into a seven point scale that measured both the frequency and the gravity of the prior record (the calculations of the prior record score will be discussed in the next section) (Kramer & Ulmer, 2009).

Having determined the measurements of the two variables – offense gravity score and prior record score – the commission then created the guideline matrix. The matrix itself consisted of 84 cells, and determined both when someone was imprisoned and, if they were, for how long. The cells were created so that offense gravity score was the most important variable in the sentencing decision, followed by the prior record score. When deciding when to imprison, the commission created incarceration lines in the guidelines. The top line of the matrix delineated when an offender should be sentenced to prison versus jail. The lower line in the matrix separated a jail sentence and probation. When deciding on sentence lengths, the commission focused on examining past sentences to search for patterns. What they discovered was that
judges felt that the minimum sentence was the fair term of incarceration. With this information in
hand, the commission decided to focus on the minimum sentence as well (i.e. the minimum
sentence was the presumptive term of confinement). Focus then shifted on the range of the
guidelines. The initial creation of the draft led to much debate about the range of the guidelines.
One group of commissioners pressed for wide ranges, as they wanted the judges to have more
discretion – especially since they were being created to stop the implementation of mandatory
minimum sentences. However, the proponents of the narrow ranges won out, although the ranges
increased in width as the length of incarceration increased.

With the guidelines drafted, they went under public review. The initial reaction to them
was largely negative, with many believing they were too lenient and others arguing that there
would be severe inter-county disparity based on crimes committed in those counties. Further,
many judges were troubled by the lack of discretion allowed for in the guidelines. With these
complaints in hand the commission went back to re-work several areas in the sentencing
guidelines.

The main change the commission made was increasing the cell width to allow for more
judicial discretion. They took this back to the General Assembly but still met harsh criticism.
The main complaints were that they were still too lenient and still did not allow enough
discretion. To correct this, the commission first increased the severity of the sentence for all
violent offenses. Then, they increased the ranges of the guidelines even more. They kept the low
numbers of the range the same – which would negate any impact on prison populations – and
increased the high end number of the ranges. Finally, they allowed for almost unlimited
discretion for all misdemeanor offenses. With these changes made the Assembly adopted the
Pennsylvania Sentencing Guidelines. They went into effect for all offenses that fell after July 12, 1982.

**Revisions**

From 1980 (prison population: 8,000) to 1990 (prison population: 22,000) Pennsylvania had witnessed a drastic increase in its prison population (Kramer & Ulmer, 2009). As such, many new policies were being recommended and implemented, including intermediate sanctions. Further, the view that nothing works was starting to lose support. With these revelations surfacing, the Pennsylvania Commission on Sentencing thought it would be prudent to review their guidelines. The focus of the review was on five major points (Kramer & Ulmer, 2009, p. 44):

1. Narrowing the guideline ranges
2. Establishing philosophical premises for guideline sentences
3. Broadening the use of nonconfinement options so as to reduce the reliance on incarceration
4. Reducing the severity of some of the nonviolent recommended sentences
5. Increasing the severity of the recommendations for violent sentences

One of the commissions’ main concerns was that Pennsylvania was too lenient on violent offenders and too harsh on nonviolent offenders (especially compared to other sentencing guideline states such as Washington and Minnesota). To correct this, they expanded offense gravity score from ten to 13 categories (a 14th was added in 1997) and gave judges almost total discretion for sentencing less serious offenses. The 1994 changes also saw a reestablishment of nonconfinement for eight cells in the guideline matrix and a narrowing of the ranges (some of
these ranges were again changed in 1997 to punish more severely some crimes). These changes are the current ones used by Pennsylvania today.

In summation, in the late 1970s Pennsylvania saw a movement toward harsher punishments, as the “nothing works” era of criminal justice was in full swing. Gone were the days of intermediate sanctions based on rehabilitation, as determinate sentencing and mandatory minimums were ushered in. Pennsylvania, wanting to avoid mandatory minimums, created the Pennsylvania Commission on Sentencing. This commission was tasked with creating sentencing guidelines that would be followed by judges across the state. After years of discussion and debate, it was decided that offense gravity and prior record would be the deciding factors in an offenders’ punishment. While they faced much opposition to pass the guidelines, eventually they were accepted and enacted in 1982. They have come under revision in both 1994 and 1997, but the principles of the original guidelines remain the same. What follows next is a brief discussion of how exactly the guidelines are used.

Implementation of the Guidelines

This section will discuss how the guidelines are implemented. Referencing the Commonwealth of Pennsylvania Commission on Sentencing: Sentencing Guidelines Manual, 6th Edition, this section will briefly outline how both offense severity and prior record are measured and employed to sentence offenders. Once these two items are scored, they are utilized in the sentencing guideline matrix to obtain a sentence range for the convicted offender.

Research on the Effectiveness of the Guidelines

In accordance with analyzing the effectiveness any newly enacted policy, the Pennsylvania sentencing guidelines were subject to various reviews over the years. As with most
sentencing research, the reviews mostly focused on whether or not the guidelines were reducing disparity. This section highlights studies that have endeavored to answer this question.

Kramer and Lubitz (1985) conducted one of the first studies on the newly implemented Pennsylvania sentencing guidelines. To examine its impact, the authors compared pre- and post-guideline data on sentencing practices. They focused their attention on four crimes (aggravated assault, rape, burglary, and robbery), and 23 counties. The first thing the authors examined was whether the post-guideline sentences fell within the range set by the guidelines. They found that 88% of all sentences did so, with 1.4% falling within the aggravated range and 4.7% falling within the mitigated range (Kramer & Lubitz, 1985). Concluding that judges, for the most part, appropriately utilized the guidelines, the authors examined whether race influenced sentencing practices.

They found that nonwhites were both more likely to be incarcerated and received slightly longer average minimum sentences. Taking it a step further, the authors examined whether both increased offense gravity scores and prior record scores for minorities could account for this. To do this, they first calculated the expected incarceration rates and minimum incarceration lengths for nonwhite offenders. Once this was completed, they compared the data between the races and concluded that there were no racial differences in sentencing practices.

To compare the pre- and post-guideline data, the authors examined whether pre-guideline sentences followed the current guideline recommendations. They found that, prior to the guidelines, consistency was extremely low. With the implementation of the guidelines, consistency has vastly improved in agreement with the durational recommendation – be it standard, aggravated, or mitigated – clearly increasing as compared to pre-guideline data.
Finally, the researchers examined the impact of the guidelines on incarceration. As previously discussed, the General Assembly rejected the first draft of the guidelines, with a main reason being leniency toward serious violent felons. Therefore, it was expected that the data on the post-guideline sentences would reflect an increase in incarceration rates for these serious crimes. The data did find that, for all of the offenses studied, the guidelines had their desired effect (Kramer & Lubitz, 1985). Overall, the authors concluded that the guidelines implemented in Pennsylvania have had their desired effect in increasing incarceration rates and sentence severity, reducing sentencing disparity, and lessening the wide range of sentences lengths witnessed in the pre-guideline era.

Since this study, several other scholars have undertaken an exploration of the effect of the guidelines on sentencing outcomes. Steffensmeier et al. (1998) found that young black males received the harshest penalties under the guidelines. More recent research has found that Hispanics are being sentenced more severely than blacks (Steffensmeier & Demuth, 2001). Further, they are less likely to receive downward departures (Kramer & Ulmer, 2002) and more likely to receive upward departures (Johnson, 2003) than both whites and blacks (who did receive them more often than whites). Finally, Auerhahn (2007) found that young black and Hispanic males who were detained before trial for the commission of a homicide received much longer sentences than any other type of group. She argued that this combination of characteristics led to the individuals being seen as more dangerous and therefore punished more severely.

More recently Kramer and Ulmer (2009) reported on the effectiveness of the guidelines in their comprehensive examination of them. The authors first examined the odds of incarceration both jail and prison among the various racial/ethnic categories. They found that both Hispanic and black offenders are more likely to receive a term of jail incarceration than
their male counterparts. At the prison level, black and white odds of incarceration are nearly identical. However, Hispanics are more likely to receive a prison sentence than both white and black offenders. Shifting to length of sentence, Hispanics receive sentences that are, on average, 10% longer than white offenders. Blacks receive sentences that are 4% longer than white offenders (Kramer & Ulmer, 2009).

The authors also examined interactive effects in the Pennsylvania sentencing guideline data. In terms of incarceration, older Hispanic males are the offender group most likely to be imprisoned. Further, they receive, on average, the longest sentence lengths. The authors found that older black and white males are nearly equal in both their chances for incarceration and the length of sentence imposed on them. Further, they found that all female categories were punished less severely than all male categories, and that young black females were sentenced the most leniently.

Overall then, both past and current research suggests that the Pennsylvania sentencing guidelines have done a good job at both unifying the sentences meted out across the state and lessening sentencing disparity. However, this does not mean that no unwarranted disparity exists. It seems that Hispanics are now being punished the most severely among the three major race/ethnic categories.
Appendix C: Focal Concerns Theory

Focal Concerns Theory

The final theory that will be explored in the qualitative analysis is focal concerns theory. This theory was created by Steffensmeier et al. (1998) to explain the disproportionately more severe sentences minorities receive compared to white offenders. The authors took this term from a work by Miller (1958, p. 6), who defined focal concerns as, “areas or issues which command widespread and persistent attention and a high degree of emotional involvement.” While Miller was examining gang delinquency, the term resonated with Steffensmeier et al. (1998), who incorporated it into the study of sentencing decisions.

The authors suggested that judges take three focal concerns into account when sentencing an individual: blameworthiness, protection of the community, and practical implications of sentencing decisions. The first concern, blameworthiness, referred to the offenders’ culpability along with the amount of injury he or she caused. The authors suggested that this concern usually was associated with “just deserts,” which referred to a philosophy of punishment that was more retributive in nature. The most significant factor for this concern, then, was the seriousness of the offense. Along with offense severity, criminal history, prior victimization (which mitigates blameworthiness), and the offenders’ role in the offense all contributed to the blameworthiness of the offender.

The second concern outlined was protection of the community. When judges consider this concern, they must determine how dangerous the offender was to the community. The more signs they showed of posing a threat after release, the longer the offender would be sentenced for. In addition, they also aimed to deter would-be offenders from committing the same crime that the offender did. The judge considered several predictors when determining the likelihood of recidivism: the nature of the offense (violence, drug, or property), information on the case, prior
record, facts of the crime (such as weapon use), and possibly characteristics of the offender (such as education, employment, drug use, or family history).

The third, and final concern, was dubbed practical constraints and consequences. These concerns were both organizational and individual. The former referred to maintaining working relationships among the courtroom work group, making sure cases flowed smoothly, and being mindful of overcrowding in the local correctional institutions. The practical consequences faced by the offender included the defendants’ ability to “do time,” the health of the defendant, any special needs they may have had, costs they would levee against the correctional institution, and any family they may have left behind.

As with all decision making, judges are not privy to all of the information necessary to possess a complete picture of the threat the offender posed. What the authors speculated was that, because they have incomplete information, judges created “perceptual shorthands” to help them deduce who was dangerous or not, who may recidivate, and the like (Steffensmeier et al., 1998, p. 767). To further discuss this, the authors turned to a work by Hawkins (1981). He suggested that the perception of criminal behavior may involve the processes of both attribution and perceptions of punishment (Hawkins, 1981, p. 280). For example, Hawkins articulated that a punisher may conclude that a violent offender was just an aggressive individual. On the other hand, there could have been extenuating circumstances that led the offender to commit the violent act. Punishers can take these into account. Further, once these were taken into account, the punisher perceives how they impact the offenders’ potential for rehabilitation, the dangerousness they posed to society, and, ultimately, what type of punishment to impose.

Steffensmeier et al. (1998) went on to suggest that several extralegal factors played a role in creating a judge’s perceptual shorthand: age, sex, and race/ethnicity. Specifically, they argued
that judges may carry certain stereotypes about these specific qualities. For example, Chiricos et al. (1998) discussed that some individuals believed in a racial threat. That is, minorities (specifically at the time of their writing blacks) were a threat to mainstream America and political elites, and therefore dealt with more punitively. Steffensmeier et al. (1998) shared a similar view: blacks were seen as more dangerous. More specifically, though, they posited that race, age, and sex would interact when a judge considered his or her perceptual shorthand. What they posited was that young black males would be perceived as the most dangerous age/race/sex category, and therefore be punished the most punitively. Their work supported this theory.

In a work done by Crow and Bales (2006), the sentencing guidelines were examined through a focal concerns lens. The authors defined the guidelines as a practical constraint, thereby incorporating sentencing policy into focal concerns theory. They examined whether the 1994 guidelines implemented in the state studied had any effect on the disparities that were witnessed even after the implementation of the 1983 guidelines (blacks were still sentenced more severely). The 1994 draft of the guidelines wanted to reduce this disparity, and therefore guideline policy was enacted that constrained the judges’ decision. The authors found that the policy ended sentence disparity between black and white offenders, but Hispanics were now sentenced more severely.

Recently, Hartley, Maddan, and Spohn (2007) called into question focal concerns theory, arguing it was not a theory at all but, rather, a perspective. They suggested that the components of the theory are not well defined and therefore not easily tested. That is, blameworthiness, protection of the community, and practical constraints do not have well-defined parts to them, which does not allow for rigorous testing. Further, it does not possess a set of testable propositions. The authors set out to define the three components of focal concerns and offer a
more complete test of the theory. The results concluded that focal concerns does explain sentencing disparity, but more meticulous studies of the theory must be undertaken with more thorough characterizations of the concepts before focal concerns becomes a well defined sentencing theory.

Steffensmeier et al. (1998) suggested that judges must take three items into account when sentencing: blameworthiness, protection of the community, and practical constraints. With incomplete information on these items, judges often turn to perceptual shorthands to assist them in their decision-making process. Often, this shorthand includes extralegal variables, such as the race of the defendant. However, while understanding the arguments against the theory, its concepts must be taken into account in the current proposed research. Statements made suggesting that judges take any of these items into account must be analyzed, as it will offer further support for the theory.
# Appendix D: Correlation Matrices for all Samples

## Overall Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Race</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Sex</td>
<td>.09</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Age</td>
<td>-.06</td>
<td>-.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 PRS</td>
<td>.19</td>
<td>.13</td>
<td>.33</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 OGS</td>
<td>-.08</td>
<td>.21</td>
<td>-.18</td>
<td>-.09</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 G.E.</td>
<td>-.02</td>
<td>-.02</td>
<td>.05</td>
<td>.06</td>
<td>-.04</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 OCN</td>
<td>-.06</td>
<td>-.01</td>
<td>.02</td>
<td>-.03</td>
<td>.09</td>
<td>-.04</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 DO</td>
<td>.17</td>
<td>.10</td>
<td>-.10</td>
<td>-.05</td>
<td>.16</td>
<td>-.09</td>
<td>-.02</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 PerO</td>
<td>.001</td>
<td>.09</td>
<td>-.05</td>
<td>-.05</td>
<td>.57</td>
<td>-.04</td>
<td>.03</td>
<td>-.30</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 ProO</td>
<td>-.16</td>
<td>-.17</td>
<td>.13</td>
<td>.08</td>
<td>-.01</td>
<td>.12</td>
<td>-.01</td>
<td>-.70</td>
<td>-.48</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>11 LOS</td>
<td>.06**</td>
<td>.09**</td>
<td>-.02</td>
<td>.03</td>
<td>.64**</td>
<td>-.05**</td>
<td>.14**</td>
<td>-.08**</td>
<td>.42**</td>
<td>-.30</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Significant at the .05 level
**Significant at the .001 level
### Black Sample

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Sex</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Age</td>
<td>-.14</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 PRS</td>
<td>.10</td>
<td>.42</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 OGS</td>
<td>.22</td>
<td>-.23</td>
<td>-.10</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 G.E.</td>
<td>-.03</td>
<td>.06</td>
<td>.04</td>
<td>-.03</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 OCN</td>
<td>.004</td>
<td>.01</td>
<td>.00</td>
<td>.18</td>
<td>-.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 DO</td>
<td>.14</td>
<td>-.14</td>
<td>-.08</td>
<td>.13</td>
<td>-.09</td>
<td>.01</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 PerO</td>
<td>.07</td>
<td>-.06</td>
<td>-.03</td>
<td>-.55</td>
<td>-.05</td>
<td>.12</td>
<td>-.35</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 ProO</td>
<td>-.19</td>
<td>.18</td>
<td>.10</td>
<td>.56</td>
<td>.13</td>
<td>-.10</td>
<td>-.71</td>
<td>-.42</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>10 LOS</td>
<td>.08**</td>
<td>.06**</td>
<td>.03</td>
<td>.68**</td>
<td>-.05*</td>
<td>.20**</td>
<td>-.11**</td>
<td>.45**</td>
<td>-.29**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Significant at the .05 level
**Significant at the .001 level
<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.07</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRS</td>
<td>.15</td>
<td>.24</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OGS</td>
<td>.19</td>
<td>-.08</td>
<td>-.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.E.</td>
<td>-.004</td>
<td>.03</td>
<td>.09</td>
<td>-.06</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCN</td>
<td>-.01</td>
<td>.01</td>
<td>-.04</td>
<td>.06</td>
<td>-.06</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DO</td>
<td>.03</td>
<td>-.01</td>
<td>-.09</td>
<td>.17</td>
<td>-.09</td>
<td>-.03</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PerO</td>
<td>.12</td>
<td>-.03</td>
<td>-.07</td>
<td>.58</td>
<td>-.03</td>
<td>-.01</td>
<td>-.23</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ProO</td>
<td>-.12</td>
<td>.03</td>
<td>.13</td>
<td>-.59</td>
<td>.10</td>
<td>.03</td>
<td>-.66</td>
<td>-.58</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>LOS</td>
<td>.09**</td>
<td>.07*</td>
<td>.01</td>
<td>.56**</td>
<td>-.06</td>
<td>.10**</td>
<td>-.04</td>
<td>.37**</td>
<td>-.30**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* Significant at the .05 level
** Significant at the .001 level