A multilevel assessment of sentencing disparity in Kansas: Do sentencing disparities differ by individuals and judicial districts?

by

George Ebo Browne

B.S., University of Kansas, 2011
M.A., Wichita State University, 2013

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Sociology, Anthropology and Social Work
College of Arts and Sciences

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2021

Abstract

Government researchers, policymakers, and sentencing scholars have placed special emphasis on evaluating the sentencing schemes used in courts around the nation. Most past studies focused on extralegal characteristics of the defendant. The current study is different in that emphasis is also placed on the potential influence of judges and judicial districts. Focusing attention on sentencing judges permits the ability to link characteristics of arguably the most important courtroom actor to sentencing outcomes. Assessing judicial districts incorporates another distinct contribution to the study of courts: an examination of whether social context affects sentencing decisions. A common focus of past literature rests on assessing the direct impact of extralegal factors such as race/ethnicity, gender, and socioeconomic status on sentencing variation. Less research has been devoted to how elements such as sociodemographic, economic, and political characteristics of courts and their jurisdictions affect sentencing outcomes. The present study highlights the importance of considering these factors when examining sentencing disparities and establishes why Kansas is the ideal setting for such study.

Data examined in this study derive from the Kansas Sentencing Commission, the U.S. Census Bureau, Kansas Office of Judicial Administration, and the Kansas Secretary of State's Office. These datasets were utilized to conduct a multilevel analysis of sentencing disparity in Kansas. The levels assessed include at the individual case- and judicial district-levels. Hierarchical linear modeling (HLM) techniques were used to control for the complexity of this multilevel approach. Key contributions of this study include: (1) providing an in-depth analysis of inter-judge sentencing disparity, (2) conducting a multilevel sentencing study in a Midwestern state, (3) inclusion of Hispanics in the analysis and (4) use of up-to-date data on a timely topic.

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Dedication

I dedicate this dissertation to the life and memory of Officer Bryon Joseph Virtue. Bryon lived down the street from me growing up and it was our similar interest in law enforcement that first paired us together. I fondly remember patrolling the mean sidewalks of Lawrence, Kansas on our bikes by day and transitioning to our Hot Wheels patrol cars in makeshift cities by night. We both knew that what many perceived to be a childhood hobby was actually a calling. Although the paths we took were different, our passion for the field of criminal justice was the same. Knowing one another's educational and occupational goals, we continually encouraged each other to attain the highest levels of success. He knew that I would eventually become "Dr. Ebo" and I was certain that his title would be chief of police or special agent one day. That all took a tragic turn the morning of March 14th, 2020. Bryon was killed en-route to work in a head-on collision by a suspect fleeing from authorities in a stolen vehicle and under the influence.

Bryon was killed fulfilling his dream of being a police officer and for that I shall have solace. Nonetheless, his story does not end there. His memory is the reason I love, laugh, and seek to improve the criminal justice system. Every day, police officers leave for work with no guarantee that they will make it home. Thus, it is imperative that we as a society respect the men and women who risk their lives for our safety.

And to you my brother, I love you, miss you and vow to protect your children. I just ask that you watch over us. Rest well my friend, we got it from here.

Officer Bryon Joseph Virtue, Wellsville Police Department, Badge Number 875

End of Watch, Fourteenth Day of March 2020

Chapter 1 - Introduction

Prior to the development of the sentencing guidelines, the federal government and the majority of individual states utilized an indeterminate sentencing scheme (Spohn, 2000). With this system, judges had high levels of discretion in deciding one's sentence. This practice led to widespread sentencing disparity. Since the inception of sentencing guidelines, scholars have closely examined if the use of this system has resulted in a reduction of disparity (Bernard & Engel, 2001; Engen & Gainey, 2000; Engen & Steen, 2000). Past research has placed special emphasis on assessing the relationship between elements of the crime committed and the inclusion of extralegal factors to determine its impact on sentencing decisions (Dowd, 2008; Lewis, 1998; Rich, 2001). It is here where scholars have found evidence that differential treatment of defendants on the basis of their personal demographics still contributes to sentencing variation (Doerner & Demuth, 2010; Kautt, 2002; Spohn, 2000; Wang & Mears, 2010a, 2010b). Moreover, scholars have found that other factors that exist across court jurisdictions and among legal actors contribute to these disparities (Eisenstein, Flemming & Nardulli, 1988; Eisenstein & Jacob, 1977; Hofer, Blackwell & Ruback, 1999; Johnson, 2005). For example, a study by Hofer et al. (1999) found that implementation of determinate sentencing reduced inter-judge sentencing disparity. Results revealed that the sentencing judge only accounted for 1.24 percent of sentencing variation in 1995, down 1.8 percent from that of 1985 (2.32 percent). Research conducted by Eisenstein and Jacob (1977) highlighted how sentencing varied in courts located in different places through assessing sentencing outcomes in Baltimore, Chicago, and Detroit. The present study further examines these phenomena.

This chapter begins with a review of the historic context of sentencing guidelines, then examines racial disparity in the criminal justice system and offers an explanation of how use of

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the sentencing guidelines contributes to this problem. This is followed by sections on the major contributions of the current study, research gaps, and the study's focus. The chapter concludes by identifying the research questions of the present study and dissertation outline.

Historical Context of the Sentencing Guidelines

The Sentencing Reform Act of 1984 established the United States Sentencing Commission (USSC), and on November 1, 1987, the United States Sentencing Guidelines (USSC) were formally enacted (Johnson, Ulmer & Kramer, 2008). Prior to the passage of this legislation, the federal government and most individual states utilized an indeterminate sentencing system. This scheme permitted prison sentences to be dependent upon a convicts' behavior while behind bars, rather than on a fixed number of years (Gottlieb, 1990). With this system, offenders received a minimum and maximum sentence, and the parole board determined the date of release. The decision for release often rested upon judgement of whether the offender had been rehabilitated or was perceived to have served enough time for his or her conviction (Spohn, 2000). Federal judge Marvin Frankel of the Southern District of New York was the first to publicly call for change in this structure. He referred to the former system as a "bizarre nonsystem of extra extravagant powers confided to variable and essentially unregulated judges, keepers, and parole officials" (Frankel, 1973, p.1) Hearing his call, Congress adopted the Federal Sentencing Guidelines (FSG). Shortly thereafter, many states followed suit in developing their own sentencing guidelines and commissions.

The Kansas Sentencing Guidelines (KSG) were created through the passage of Senate Bill 50 in 1989. The guidelines were developed with the core objectives of reducing sentencing disparity, promotion in truth of sentencing and the ability to assist in prison population management (1989 S.B. 50, Chapter 25). In years leading up to formation of this bill, the state's

prison population had reached an all-time high. Because of this, the U.S. Department of Justice placed a federal mandate for the state to release an average of 100 inmates per month. In response, the state created the Criminal Justice Coordinating Council to comprise a plan of how to comply with the federal order (Gottlieb, 1990). The Council recommended that a shift to determinate sentencing and creation of the Kansas Sentencing Commission (KSSC) would be the best approach. On July 1, 1993, the state of Kansas officially enacted the KSG with the goal to "reduce sentence disparity [and] to ensure the elimination of any racial, geographical or other bias that may exist" (L. 1989, Ch. 225, Sec. 1). To endorse this premise, the sentencing guidelines were designed as a matrix system that incorporated the seriousness of the current offense and prior criminal history. This matrix has structured discretion in that a fixed range of punishment is established for specific crimes. Such a mechanism was put in place so that defendants who are convicted of the same offense and have similar criminal histories receive the same sentence (Gottlieb, 1990). The following section reviews literature that suggests despite the intentions of the sentencing guidelines, racial disparity still exists.

Racial Disparity in the Criminal Justice System

In assessing issues of race in the criminal justice system, it is important to understand the difference between discrimination and disparity. Discrimination occurs when a person or group is treated differently because of who they are rather than their abilities (Stohr & Walsh, 2015). Disparity is the differences observed between groups or people and is often the product of discrimination (McNamara & Burns, 2018). Racial disparity in the criminal justice system is apparent in the disproportionate representation of minorities in prison statistics. African Americans make up 12 percent of the U.S. population yet represent 33 percent of the nation's prison population. Conversely, whites represent 72 percent of the U.S. population but only 30

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percent of the prison population (Bronson & Carson, 2019; U.S. Census Bureau, 2018). Thus, while whites are underrepresented, African Americans are represented more than twice their population size in prison statistics relative to their proportion in the general population. According to Sampson and Lauritsen (1997), explanations for these discrepancies fall into two categories, the differential involvement and differential selection hypotheses. The differential involvement hypothesis proposes that African Americans' overrepresentation in crime statistics is the result of their elevated involvement in criminal activity. The differential selection hypothesis states that this overrepresentation is the result of a racially biased system. It is here where scholars have maintained that sentencing practices have led to the promotion of racial disparities.

Although one of the main rationales for shifting to determinate sentencing was to reduce racial disparity, results from studies at both the state and federal level show that it still exists and is constantly reproduced. For example, Mustard (2001) examined cases of 77,236 federal defendants sentenced after the 1984 Sentencing Reform Act (SRA). The results showed that black males were the most likely to receive prison terms and upward adjustments but the least likely to receive downward departures and sentence discounts.[1] Such practice led to whites receiving the shortest average sentence (32.1 months), followed by Hispanics (54.1 months) and blacks (64.1 months). Examining this phenomenon at the state level, Bales and Piquero (2012) assessed whether blacks and Hispanics were disadvantaged at the sentencing phase of trials using both traditional regression-based methods and precision matching. Their results revealed that

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[1]Under sentencing guidelines, departures may be ordered to sentence a defendant to a sentence length or type that differs from the sentence set forth under the guidelines. Upward departures reflect sentences above the guideline recommendation and downward departures reflect sentences under the guideline recommendation.

black defendants, sentenced in accordance with Florida's sentencing guidelines, received disproportionally longer prison stints than white and Hispanic defendants using both methodologies. Wooldredge, Griffin, and Rauschenberg (2005) found similar results in Ohio. Their study found that although the state's shift to determinate sentencing led to reductions in some race-related disparities, African Americans were more likely to be incarcerated in the post-guideline era compared to the pre-guideline era.

Despite the original intentions of sentencing guidelines, penalties under determinate sentencing can be rather punitive in nature. A reason for this is that determinate sentencing rests upon philosophies of deterrence. The guidelines operate as a form of specific deterrence in that those sentenced to prison are incapacitated for at least 85 percent of their guideline sentence in hope that the "truth-in-sentencing" philosophy will be understood and serve as a deterrent for the defendant to refrain from committing future crimes (Paternoster, 2010; Stohr & Walsh, 2015). The guidelines also operate as a form of general deterrence in that they are designed so that "would be" offenders notice the predetermined punishments and are then deterred from engaging in criminality (Von Hirsch, Ashworth & Roberts, 1998). Another element of the Federal Sentencing Guidelines (FSG) based on deterrence is the use of mandatory minimum sentences. These sentences attempt to deter criminal activity by utilizing lengthy prison stints for violation of certain laws (Hatch, 1993). The majority of federal mandatory minimum sentences are aimed at drug crimes, which have historically disproportionately affected minority defendants (Alexander, 2012; Mascharka, 2000; Spohn, 2000). In particular, mandates that made punishment for possession of crack cocaine, commonly used by black defendants, at a 100-to-1 greater severity than powder cocaine, commonly used by white defendants, endorsed large-scale disparities in the federal system. Tonry (1995) suggests this is why the prison population

reversed from 53 percent white and 46 percent black in 1986 to 46 percent white and 53 percent black in 1991.

The Fair Sentencing Act was passed on August 3, 2010, in an effort to reduce the discrepancies in drug sentences. Provisions in this legislation abolished the mandatory minimum penalty for simple crack cocaine possession and increased the amount of crack cocaine needed to trigger a mandatory penalty for distribution. Through this Act, the quantity needed for a five-year mandatory penalty changed from 5 grams to 28 grams and for a 10-year mandatory penalty from 50 grams to 280 grams (21 U.S.C. § 844(a)). This consequently reduced the crack and powder cocaine ratio from 100-to-1 to 18-to-1. Even with this change, Alexander (2012) posited that the criminal justice system operates as part of a modern-day racial caste system that treats those convicted of felonies as second-class citizens. Similar to the restrictions placed on blacks during the original Jim Crow era, those convicted of felonies suffer regulations pertaining to where they can live, are unable to vote, are deprived of the opportunity to receive government assistance, and are automatically deemed unqualified for a number of jobs. Such a claim signifies the importance of addressing sentencing disparities. It has now been nearly thirty years since the state of Kansas adopted a determinate sentencing system and thirty-seven years since the passage of the 1984 SRA.[2] Have sentencing guidelines reduced or eliminated racial disparities? If not, where do disparities still exist and through what avenues? These questions were examined in this study.

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[2] On November 1, 1984, Congress passed the Sentencing Reform Act (SRA). The main components of this legislation were creation of the United States Sentencing Commission (USSC) and the abolishment of parole.

Importance of the Current Study: Why Kansas?

Since the inception of sentencing guidelines at both the state and federal level, researchers have placed special emphasis on evaluating sentencing schemes used in courts around the nation (Miethe & Moore, 1985; Moore & Miethe, 1986; Spohn, 2000; Tonry, 1996). The vast majority of past works have focused on general sentencing disparities by examining how a combination of legal and extralegal factors of defendants' impact sentencing decisions. This study was different in that emphasis was also placed on assessing disparity as it relates to courtroom actors and judicial districts. The following section highlights the importance of considering these factors when examining sentencing disparities and also establishes why Kansas is the ideal setting for such study.

Kansas' Dire Need of Sentencing Reform

Commonly perceived as endorsing an era of "mass incarceration," statistics show that the United States has the world's largest prison population and the highest per-capita incarceration rate (Alexander, 2012). In fact, crime reports highlight that there are over 6 million people in the U.S. criminal justice system and that one of every 110 people is incarcerated (Glaze & Kaeble, 2018; Liptak, 2008). Although issues within the criminal justice system can be found in jurisdictions throughout the country, discussions on sentencing disparity, prison overcrowding, and overall injustice largely focus on trends found in states along the coasts. Dialogue often centers on such policies as California's three-strikes law, Texas' death penalty practices, and New York's stop-and-frisk enforcement. Nevertheless, as O'Hear (2017) contends, much can be learned from studying criminal justice practices in America's "fly over states" (p. 91). He argues that similar to the 2016 presidential campaign that was affected by Midwestern swing states, sentencing practices in the heartland can also play a pivotal role on a national scale. In fact, from

2005 to 2015, states such as Kansas, Ohio, and Minnesota saw increases in their prison

population of 9 percent, 14 percent, and 16 percent, respectively, while the average increase for

the remaining states was only 3 percent (Carson & Mulako-Wangota, 2017). Thus, more

attention on sentencing trends in Midwestern states such as Kansas is warranted.

　　Kansas' criminal justice system is arguably in a worse position today than it was prior to

the creation of the state's sentencing guidelines. This perception stems from the state's current

prison crisis (Browne, 2017). In February of 2019, newly elected Kansas Governor Laura Kelly,

citing a historically high prison population and staff shortages, declared the prison system to be

in a state of emergency (Hannah, 2019). In a prison system operating at 100.1 percent of its

maximum capacity, on June 30, 2019, Kansas' prison population reached 10,044 inmates. This

equates to over 4,000 more inmates than at the end of FY 1993, the same year that the sentencing

guidelines were enacted.[3] In accordance with K.S.A. 74-9101 (b)(15), the Kansas Sentencing

Commission (KSSC) is statutorily required to produce a ten-year prison projection forecast

whenever it is at 90 percent or higher of its maximum capacity. The 2020 prison projections

forecast model estimates that the state's prison population will increase by 13.8 percent, or 1,384

inmates, by 2029 (Chang, Grube & Browne, 2019). The state recently moved inmates from

Lansing, the state's oldest prison, to a new building on the same property. The new building was

constructed because the previous building was outdated, but the change did not add additional

bed space. With no plans to build any new facilities, the Kansas Department of Corrections

(KDOC) recently decided to house 300 inmates at Saguaro Correctional Center, a private prison

located in Eloy, Arizona. Such efforts display the desperate position Kansas' correctional system

is in and puts into question the effectiveness of the Kansas Sentencing Guidelines (KSG) in

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[3] This increase is per inmate population and does not reflect a per capita change.

managing the prison population. Thus, as done in this study, it is imperative that research is conducted to empirically identify weaknesses in the KSG.

Disproportionality in Kansas' Prisons

Prior to implementation of the sentencing guidelines, judges had high levels of discretion in the sentencing process. This led to widespread disparities that negatively impacted minority defendants because the policies targeted offenses more likely associated with people of color. These practices largely stemmed from the racial tension between whites and blacks during this time (Russel-Brown, 1998; Tonry, 2005). Concerns regarding disparity, discrimination, and unfairness in sentencing led to reform efforts that began in the 1980s. Promoting such change aligned with mandates of the 14th Amendment of the U.S. Constitution, which establishes that fair treatment by the government and equal protection under the law are rights afforded to all. In Kansas specifically, state lawmakers explicitly outlined that the main objective of the KSG was to "establish rational and consistent sentencing standards which reduce sentence disparity, to include, but not be limited to, racial and regional biases which may exist under current sentencing practices" (L. 1989, Ch. 225). With such an initiative, a concise review of racial disparity in sentencing in Kansas, post-implementation of the KSG, is important.

As highlighted earlier, disparity in the criminal justice system on a national level is evident in the disproportionate representation of minorities in prison statistics. Data from the state of Kansas, however, display even greater levels of disproportionality. According to the U.S. Census Bureau, on July 1, 2019, roughly 6 percent of the state's population was comprised of African Americans (U.S. Census, 2019). Yet, KDOC reported that 28 percent of the state's prison population on June 30, 2019, were African American (KDOC, 2019). This means that African Americans were overrepresented by nearly five times in the prison population relative to

the general population. Conversely, whites represented 84 percent of the general population but only 68 percent of the prison population (KDOC, 2019; U.S. Census, 2019). Although KSG have been in existence for over twenty-five years, only a limited number of studies have broadly examined the relationship between racial disparity and sentencing under the current scheme (Dowd, 2008; Gottlieb, 1990; Lewis, 1998; Rich, 2001). This study amended this limitation by placing racial disparity as a focal point of analysis. By including measures of the defendant's race, as well as the racial/ethnical composition of judicial districts, this research provided a rigorous examination of the true impact of race on sentencing outcomes in Kansas.

Uniqueness of Kansas' Judicial Structure

Kansas is unique in that its judicial selection process for district judges serves as a natural experiment. A 1972 amendment to the state's constitution authorized the legislature to classify procedures for districts to choose between two judicial selection methods: one in which districts employ a partisan election process through popular vote and another in which the governor appoints the judge. This dual election process stems from a 1956 political debacle (Our Kansas Courts, 2020). Following a failed attempt at re-election, Kansas Governor Fred Hall resigned on January 3, 1957, just three days prior to his last day in office. Four days before that, William Smith, Chief Justice of the Kansas Supreme Court resigned due to a medical illness. Well, as soon as Lieutenant governor John B. McCuish took office as governor, he immediately appointed (now) former governor Hall to Chief Justice. Kansans were outraged by this and subsequently adopted a constitutional amendment for a new process in selecting justices and judges. One of the new provisions permitted judicial districts to select their method for judgeship appointments.

Of Kansas' 31 judicial districts, 14 employ partisan elections, while the remaining 17 rely on the governor to select the judge. Through assessing sentencing data from Kansas, Gordon and Huber (2007) found that elected judges sentence more severely than appointed judges. This was believed to be attributed to the incentive effects of potential competition and not because of more punitive appointed judges. Politically speaking, Kansas is traditionally a red state; however, of the state's past four governors, two were Republicans and two were Democrats. Cohen and Yang (2019) found that the political affiliation of judges does impact sentencing outcomes. Results from their study indicate that Republican-appointed judges sentence black defendants to longer prison terms than Democratic-appointed judges. They noted that these differences cannot be attributed to any other judge characteristics and grow larger when judges are granted more discretion. Lim (2008) examined how sentencing practices in Kansas varied by the selection processes and political orientation of each judicial district. The results indicated that when judges were appointed, sentencing decisions show negligible differences across political orientations of the judicial district. Conversely, in judicial districts that utilized a competitive election process, elected judges in conservative districts gave the most lenient sentence only 2.8 percent of the time, while elected judges in liberal districts issued the most lenient decision 41.3 percent of the time. She maintained that this was due to the pressure to follow preference of constituents for reelection purposes. With Kansas being one of only two states that employ two different judicial selection techniques, this study offers an exclusive evaluation of sentencing outcomes. Findings of this study expand knowledge of how the judicial selection process, political affiliation, and an array of other social contextual variables impact sentencing decisions.

Research Issues and Gaps

Dating back before the development of sentencing guidelines, criminologists, legal scholars, and policymakers employed several theoretical and empirical traditions to examine sentencing disparities (Kleck, 1981; Miethe & Moore, 1985; Moore & Miethe, 1986). These studies provided the theoretical foundation and methodological developments upon which the sentencing literature rests today. Despite the meaningful work that was done through these efforts, limitations in the knowledge base about sentencing disparities still exist. The following section identifies three major gaps in the literature. These gaps are limited data on sentencing judges, lack of state-level sentence studies from the Midwest that use recent data, and lack of attention to Hispanics.

Limited Data on Sentencing Judges

Although the shift to determinate sentencing was done to reduce judicial discretion in the sentencing process, scholars have found that inter-judge disparity remains one of the leading causes of sentencing variation (Johnson, 2005, 2006; Mascharka, 2001; Payne, 1997; Waldfogel, 1991; Yang, 2014, 2015). Nevertheless, relatively little attention has been given to assessing how various attributes of the judge impact sentencing outcomes. This is a critical limitation; as Hogarth (1971) stated, "You can explain more about sentencing by knowing a few things about a judge than by knowing a great deal about the facts of the case" (p. 350). The difficulty in obtaining this information in past works is largely attributed to the fact that most publicly available sentencing data do not identify the judge who imposed the sentence (Anderson & Spohn, 2010). Such practice makes it nearly impossible to assess inter-judge sentencing disparity. In the few studies for which data on the characteristics of judges were collected, sentencing scholars have pointed out flaws, such as use of small and inadequate samples of

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judges, limited measures of judicial backgrounds, and relatively simplistic analytical approaches (Johnson, 2006, 2014; Steffensmeier & Hebert, 1999). Additionally, with the most recent of these studies being published ten years ago, the datasets utilized are now outdated (Anderson & Spohn, 2010).

To address these limitations, the current study utilized a composite of data from KSSC and Kansas' Office of Judicial Administration (OJA) and information accessed through public records. These data were ideal because, in addition to defendant demographic and case specific variables, personal demographics and occupational characteristics of the sentencing judge were included. Furthermore, with over 35,000 cases and 700 variables, these data provided a sample size large enough to properly identify sentencing trends. Additionally, by examining data for state fiscal years FY 2016 to FY 2018, the datasets analyzed were up-to-date with current sentencing practices in Kansas. Lastly, as criminal justice reform efforts continue to gain traction with recent events such as the George Floyd tragedy, the focus of this study is timely. Because policymakers are eager for change, the results from this study empirically identify elements of sentencing practices in Kansas that promote sentencing disparity and provide important policy recommendations.

Lack of State-Level Sentencing Studies from the Midwest

Criminological research has largely focused on sentencing practices in the federal judiciary because they were the first to implement a determinate sentencing scheme and thus served as the basis for individual states that developed similar structures. Additionally, with research being a main objective of the FSG, the USSC has continually made data available to researchers. These datasets are useful because they contain large sample sizes and include information pertaining to the 94 federal districts located throughout the United States. Although

findings from studies that utilize their data are noteworthy, they only pertain to sentencing

practices in the federal system. In the sentencing studies that have been conducted at the state

level, most focus on Pennsylvania, Florida, California and Oregon (Stolzenberg & D'Alessio,

1996; Ulmer & Johnson, 2004; Williams, 2002). Reliance on these states is a serious limitation

because it diminishes assessment of sentencing practices that are unique to Midwestern states

like disparities found in urban and rural communities (Wooldrege, 2009). This study reveals that

a plethora of useful information can be obtained through assessing sentencing practices in

Kansas. Additionally, utilizing data less than three years old, this analysis is of current trends.

Lack of Attention to Hispanics

This study calls for more attention to be placed on sentencing practices affecting

Hispanics. The number of Hispanics in the United States has increased by nearly 55 percent

since 1980 and now this group represents 18.3 percent of the entire country's population (U.S.

Census, 2018). With an estimated 59 million residing in the United States, people of Hispanic

descent represent the country's largest minority group, outnumbering African Americans by

nearly 20 million people (U.S. Census, 2018). Scholars of crime and punishment have long noted

the importance of examining notions of inequality based on ethnicity (Sampson & Lauritsen,

1997; Spohn, 2000; Steffensmeier & Demuth, 2000). Even with the increase in the Hispanic

population, attention has largely focused on assessing the disparities between African Americans

and white (non-Hispanic) Americans in the criminal justice system. The neglect of Hispanics in

these studies largely stems from limitations in data. Government entities that provide scholars

with data often classify ethnicity as white, black, or other (Steffensmeier & Demuth, 2001). Such

practice is insufficient because rather than permitting Hispanics to be mutually exclusive, they

are frequently included in one of the other ethnic categories, which distorts findings. In the

studies that separated Hispanics from whites and blacks, scholars found that Hispanics are often

the recipients of the harshest sentences (Albonetti, 1997; Kramer & Ulmer, 1996; Spohn &

Holleran, 2000).

The present study took several steps to address these limitations. First, the data analyzed

separated Hispanic defendants from white (non-Hispanics) and black (non-Hispanic) defendants.

Separating race and ethnicity in this way appropriately accounted for Hispanic defendants in the

dataset and promoted the creation of ethnicity interaction variables. Moreover, Kansas is unique

in that although the majority of ethnic minorities reside in large metropolitan counties, a number

of nonmetropolitan counties have large Hispanic communities as well. For example, in

nonmetropolitan counties such as Seward, Ford, and Finney, Hispanics represent more than 60

percent of the total population (U.S. Census, 2018). Assessing sentencing outcomes in these

counties may shed light on ethnic disparity and social context in a unique fashion. With the

growing number of Hispanics in the United States, it is not only empirically necessary but

morally appropriate to properly account for Hispanics in sentencing research.

The Current Study

Research hypotheses for this study are drawn from contemporary organizational

perspectives, namely focal concerns theory and the racial threat perspective. Sentencing data for

this study come from KSSC and represents all felony sentences from FY 2016 to FY 2018. This

file consists of more than 35,000 felony cases from all 31 judicial districts. To investigate social

context, the KSSC data were linked to measures compiled by the U.S. Census Bureau and the

Kansas State Secretary's Office. Data on sentencing judges was derived from assessing publicly

available information from sources such as OJA and the Ballotpedia website. The core objective

of this study was to examine disparity in sentencing outcomes in Kansas at different levels. This

was accomplished through a multilevel analysis, beginning with all cases in Kansas at the individual case-level and ending at the judicial district-level. Findings of this study can be used to inform both academic scholars and policymakers of how assessment of sentencing disparities at different levels in a Midwestern state can identify some of the most pronounced examples of disparity under determinate sentencing.

Research Questions

The main purpose of this study was to examine the existence of various forms of disparity in the KSG. Special attention remained on how components of individuals and judicial districts impact sentencing outcomes. This method is unique in that only a few studies have been able to conduct such an analysis (Anderson & Spohn, 2010; Johnson, 2003; Kim, Spohn & Hedberg, 2015). The three research questions for this study were: (1) Are disparities in sentencing outcomes in Kansas based on extra-legal factors of defendants? (2) Do sentencing outcomes vary among judges? (3) Do sentencing outcomes vary across judicial districts? The answers to these questions served as the basis of analysis in the present study.

Study Outline

The second chapter reviews the research literature on various avenues of sentencing disparities at the individual case- and judicial-district levels. Chapter 3 discusses the theoretical framework for the study and states hypotheses. It is here where focal concerns theory and the racial threat perspective are identified as the main theoretical perspectives of the current study. Chapter 4 describes the research methods used to address the research questions. The research design, data, methods of data collection and methods of data analysis are described in this chapter. Chapter 5 presents the study results. Chapter 6 discusses the results in further context and concludes the study.

Chapter 2 - Literature Review

Background

There has been a continual debate on the effectiveness of sentencing practices through a determinate sentencing scheme. While some policymakers argue that sentencing under this structure has achieved its objective of reducing inequality and promoting uniformity in punishment, many scholars suggest that it has had the opposite effect (Baumer, 2013; Mitchell, 2005; Peterson, 2012; Spohn, 2000; Yang, 2014, 2015). In fact, several studies have found that sentencing disparity actually increased following implementation of the sentencing guidelines (Bales & Piquero, 2012; Hofer, 2019; Everett & Wojtkiewicz, 2002; Mustard, 2001). In order to gain a better understanding of this debate, a concise review of the historic practices and policies that led to the development of the sentencing guidelines is warranted. The current section offers this review through assessing the development of sentencing in the federal criminal justice system and at the state level, through the Kansas Sentencing Guidelines (KSG).

Sentencing Schemes

Indeterminate sentencing is a practice in which the sentence imposed for a crime is not given a definite duration. In the early years of operating under this structure, federal statutes only mandated a maximum term for confinement, leaving it to the sentencing judge to impose any term of imprisonment up to the statutory maximum (Stith & Koh, 1993). There was virtually no appellate review process, so judges could exercise sentencing at their own discretion. The inclusion of parole in the federal system in 1910 gave authority to the parole board to determine an inmate's release date (Hoffman, 1997). Based on the medical model for treating criminality as an illness, offenders in prison were released once the parole board determined that they had been rehabilitated (Stohr & Walsh, 2015).

Following decades of rapid growth in federal prisons, frequent uprisings, and a disproportionate minority representation in incarceration statistics, use of indeterminate sentencing came under intense scrutiny from both progressives and conservatives (Gertner, 2010; Heaney, 1991; Tonry, 1995; Spohn, 2000). Federal Judge Mark Frankel was one of the most adamant and early voices calling for change of this system. He maintained that the structure permitted judges to operate largely unregulated, which gave way to individualized sentencing (Frankel, 1973). He also highlighted a number of pitfalls in the parole system, one of which was discrepancies in who was paroled and when. In hopes of reforming this system, Judge Frankel called for the creation of a government administrative body responsible for regulating sentencing practices (Frankel, 1973; Gertner, 2010). He envisioned this entity to be comprised of experts in the field who would not be subject to external political pressures. In support of this vision, Senators Edward Kennedy and Strom Thurmond presented several drafts of sentencing reform bills to Congress in 1975 (Stith & Koh, 1993). Although they gained bipartisan support early on, it was not until the mid-1980s that legislation was passed to reform sentencing in the federal judiciary.

On November 1, 1984, Congress passed the Sentencing Reform Act (SRA), a comprehensive plan to overhaul sentencing in federal courts (Froyd, 1999; Sterling, 1995). The main components of this legislation were the formation of the United States Sentencing Commission (USSC) and the abolishment of parole. Provisions in this legislation established the responsibilities of USSC, which included conducting research on sentencing, corrections and parole practices, designing laws and regulations as a response to their findings, and adopting a presumptive sentencing guidelines structure (28 U.S.C. § 991 (a)). The Federal Sentencing Guidelines (FSG) were formally enacted on November 1, 1987. The guidelines introduced a

determinate scheme in which sentencing was contingent upon a set term of confinement calculated through a matrix system with a range of presumptive years (Stith & Cabranes, 1996). The FSG served as the model for which other jurisdictions followed in developing their own sentencing guidelines and commissions.

Historical Review of the Kansas Sentencing Guidelines

Although the federal government and several states shifted to determinate sentencing in the early to mid-1980s, Kansas did not join the initial wave. Rather, the state operated under an indeterminate sentencing system with a unique conjuncture with parole until 1993 (Dowd, 2008). Like other indeterminate sentencing schemes, defendants sentenced to prison were required to serve a minimum portion of their sentence before they were eligible for parole. Nonetheless, judges in Kansas retained additional authority over the defendant for the first four months of the sentence. Through a policy referred to as "120-day call back," sentencing judges had the power to call offenders in prison back to court to review the original disposition with the option of placing them on probation or returning them to prison (K.S.A. 21-4501). The rationale for this practice was to implement a term of shock incarceration; nonetheless, policymakers saw flaws in this system. Some viewed this procedure as a reduction in the truth-in-sentencing, while others argued it promoted unwarranted disparities in that white defendants benefited more than minority defendants from call back decisions (Dowd, 2008). Even though there were many objections to this practice, none of these initial claims led to reform of the system.

Actions towards sentencing reform in the state began to gain traction in the late 1980s as a response to prison overcrowding (Gottlieb, 1990). Kansas' indeterminate sentencing structure had been criticized for its inability to regulate the state's escalating prison population (Dowd, 2008). Evidence of this is witnessed in the end-of-year prison population totals that increased

from 2,416 inmates in 1979 to 6,172 inmates in 1989 (KDOC, 1989). This rapid growth required

the Kansas Department of Corrections' (KDOC) housing facilities to operate at double their

capacity (Gottlieb, 1990). After several pro se petitions challenging the conditions at Kansas

state penitentiaries, Federal Judge Richard Rogers ordered on April 1, 1988, a population

reduction of 100 inmates per month (Rich, 2001). The order did not specify a timeline but

instead relied on a good faith effort. Prompted by the slow rate of change, Judge Rogers issued

an additional order on April 13, 1989, that mandated specific target dates (Rich, 2001). It was at

this time that state policymakers began to take note that immediate action was warranted.

Following recommendations of the Criminal Justice Coordinating Council, Senate Bill 50

(SB 50) was passed on June 1, 1989 (1989 S.B. 50, Chapter 25). Similar to the 1984 SRA in the

federal system, SB 50 created the Kansas Sentencing Commission (KSSC) (Gottlieb, 1990). The

KSSC was designed with the core objectives of reducing sentencing disparity, promoting truth of

sentencing, and maintaining the ability to assist in prison population management (K.S.A. 74-

9101 (b) (1)). Developing a sentencing guideline model based on fairness and equality and

linking justice to corrections practices was one of its main duties. On July 1, 1993, the Kansas

Sentencing Guidelines Act was passed through Senate Bill 423 (K.S.A. 21-4701, Chapter 239).

This act abolished indeterminate sentencing and created a new determinate sentencing structure

carried out through the Kansas Sentencing Guidelines (KSG). Under this structure, a two-grid

presumptive felony sentencing scheme was developed; drug offenses went on one grid (drug

grid) and all other felonies were placed on another (nondrug grid) (see Appendixes A and B).

Similar to the FSG, the KSG was constructed under the realm of retribution in that the

seriousness of the offense and extent of injury to the victim shape the punishment scheme. For

non-drug offenses, crimes involving personal injury are sanctioned at the highest severity level

(level 1), whereas crimes with little or no harm to others are scored at the lowest level (level 10). On the original drug grid, the most severe drug crimes were scored at severity level 1, while the least severe drug crimes were scored at severity level 4. On July 1, 2012, the state of Kansas adopted a new drug grid that reclassified severity levels 1 to 4 to 1 to 5, in which the least severe drug crimes were now severity level 5 (2012 Substitute House Bill 2318). Severity levels are important because they dictate the type of punishment (probation versus prison) and length of sentence the defendant receives following a felony conviction. Offenses at the higher severity levels result in more punitive sentences. In addition to offense severity level, another component of importance on the KSG is the defendant's criminal history score. Criminal history scores in Kansas are based on a scale of nine different categories ranging from A to I. Under this structure, those with no criminal history have the lowest score (I) and those with three or more person felonies have the highest (A). The combination of offense severity and criminal history scores serve as axes on the KSG.

Conclusion

This section provided a thorough review of the development of sentencing guidelines in both the federal criminal justice system and in the state of Kansas. Beginning with the federal system, the FSG was created with the expressed goal of promoting honesty, uniformity, and proportionality in sentencing (U.S.C. § 3551-3626). Shortly after implementation of the FSG, Kansas, like many other states, followed suit in developing its own sentencing commissions and guidelines. A viable question one should ask is how has this sentencing structure impacted sentencing disparities? The following section reviews a broad range of literature that examines answers to this question.

Sentencing Disparities

Determinate sentencing was created so that persons of different backgrounds are sentenced using a standard set of criteria. The idea behind this practice was to promote uniformity in sentencing practices that reduced unwarranted disparities. Unwarranted disparity occurs when similar defendants receive dissimilar sentences in accordance with extralegal factors (Stolzenberg & D'Alessio, 1996). Nonetheless, one of the most common critiques of determinate sentencing is that it produces extralegal disparities. This section provides a general review of scholarship that examines this premise on the basis of a defendant's race/ethnicity, gender, and class. Literature in this section established the foundation of key components of sentencing disparity examined in the current study.

Determinate Sentencing and Racial and Ethnic Disparities

Racial and ethnic disparities arise in sentencing when minority defendants are sentenced differently than white defendants because of their racial and ethnic identity (Steen, Engen & Gainey, 2005). Crime and justice research provides evidence of this by highlighting the longer and harsher sentences that minorities, particularly minority males, receive compared to their white counterparts. Findings from a number of studies support this position. Spohn's (2000) literature review of thirty-two sentencing publications discovered that young black and Hispanic males were imprisoned at higher rates than their white counterparts in the majority (55 percent) of the studies reviewed. Likewise, Baumer (2013) conducted a systematic literature review on race scholarship and discovered a significant increase in racial disparity over the past century. He found that in the early 1900s, incarceration rates of blacks were nearly four times higher than those of whites. Fast forward 100 years, incarceration rates of blacks have now increased to nearly eight times those of whites. Several meta-analytic studies reveal notable findings as well.

For example, Mitchell (2005) conducted a meta-analysis of 71 published and unpublished studies that examined if African Americans were treated more harshly than others. The results revealed that African Americans were generally sentenced more harshly than both whites and Hispanics. These differences were statistically significant but relatively small. However, when studies examined drug offenses, imprisonment decisions, and discretionary sentencing decisions, the unwarranted sentencing disparities grew considerably. Similarly, a meta-analysis study of 85 research articles revealed that after taking into account the defendant's criminal history and seriousness of offense, Blacks and Latinos were sentenced more harshly than whites in most of the studies analyzed (Mitchell & MacKenzie, 2004).

Moreover, several sentencing studies found pronounced evidence that racial and ethnic minorities receive the most punitive sentences. Bales and Piquero (2012), for example, applied a traditional regression-based model and a precision methods model to test sentencing outcomes in Florida. Their results showed that regardless of the method used, black defendants had a significant disadvantage in terms of the incarceration decision and sentence length. Blacks had the highest point totals, were the most likely to receive recommended prison sanctions, and were significantly more likely than whites to receive an incarceration sentence. Steffensmeier, Ulmer and Kramer (1998) applied both an ordinary least squares (OLS) regression and logistic regression method to analyze the in/out decision pertaining to incarceration. Their results indicated that young black male defendants were the group most likely to be incarcerated and received the longest sentences. Steffensmeier and Demuth (2000) examined USSC data from 1993 to 1996 to investigate race and ethnic differences in sentencing outcomes. The results revealed that relative to white drug defendants, white-Hispanic drug defendants were 16 percent more likely to be imprisoned and received prison terms about 19 months longer. Black-Hispanic

drug defendants were 20 percent more likely to be imprisoned, and they received prison terms about 23 months longer than those received by white defendants. Black drug defendants were 11 percent more likely to be imprisoned, and they received prison terms about 16 months longer than those received by white drug defendants.

The association between race and sentencing has been examined for decades. According to Zatz (1987) and Johnson and Lee (2013), this research has experienced five distinct waves. The first was literature produced prior to the 1960s, which showed consistent bias against non-Whites, but the results were limited to simplistic statistical techniques and had a lack of controls for legally relevant variables (Lemert & Rosberg, 1948; Martin, 1935). The second wave was comprised of literature published during the 1960s and 1970s; advancements in data quality and statistical techniques led to additional evidence of overt racial disparity (Bullock, 1961; Gerard & Terry, 1970; Jaros & Mendelsohn, 1967). The third wave began in the 1980s and uncovered more indirect racial effects in sentencing by assessing racial disparity under the newly implemented sentencing guidelines systems. Many of the works produced during this time concluded that disparities were reduced but not eliminated by the guidelines (Miethe & Moore, 1985; Tonry, 1996). The fourth wave began in the early 2000s and shifted the focus from assessing whether race matters to when and in what context racial and ethnic disparities occur (Mitchel, 2005; Spohn, 2000; Zatz, 1987).

The academy is currently in the fifth wave. A main component of this wave is the introduction of new theoretical perspectives and modern statistical techniques used to better identify the causal effect of race on punishment. Although sentencing scholarship produced over the last 50 years has offered useful findings, limitations still persist. Baumer (2013) discovered that the typical approach of relying on archival data and use of conventional regression models

was insufficient in examining the key underlying questions on the relationship between race and sentencing. This was attributed to the fact that standard regression models often yield uncertain evidence of the presence of racial disparities. He cited two general issues that contributed to this problem: (1) an overly narrow treatment of race and (2) a relatively narrow scope of conditions that tend to define in the modal tradition of how race may shape sentencing outcomes (Baumer, 2013). Pratt (1998) conducted a meta-analysis of literature on race and sentencing over the last 20 years and contended that a number of methodological inconsistencies of the past put into question the validity of this research. He maintained that the true effect of race and sentencing may be hidden by differences in how researchers operationalized the race variable.

Ulmer (2018) highlights how in the past forty years, most of the sentencing studies have found that young black and Hispanic male defendants tend to receive the most severe sentences. Nonetheless, he contends that more attention should be placed on other stages of the criminal justice system that impact sentencing decisions. Following this notion, scholars maintain that the power of prosecutors during the plea barging phase makes them the strongest influencer of sentencing outcomes under determinate sentencing schemes (Bushway, Redlich, & Norris, 2014; Kutateladze & Lawson, 2018; Metcalfe, & Chiricos, 2018). Studies suggest that the role of prosecutors intensified following implementation of sentencing guidelines because it provides a guided scheme for penalties that defendants may face if they did not accept a plea deal (Johnson, Spohn, King & Kutateladze, 2014; Simon, 2007). This is likely related to why approximately 95 percent of all convictions today are the result of a guilty plea (Reaves, 2013). Shermer and Johnson (2010) maintain that despite recent sentencing reform efforts to constrain judicial discretion, the unchecked discretion awarded to prosecutors' risks "the perpetuation of the types of disparities sentencing reforms were intended to reduce" (p. 396). In examining this notion in

relation to the race of defendants, Metcalfe and Chiricos (2018) discovered that black defendants were less likely to be offered a plea and received a lower value for their plea than white defendants when they did accept the deal. Kutateladze, Andiloro and Johnson (2016) suggest that systematic differences in plea bargaining outcomes is the result of implicit biases associated with negative stereotypes of racial and ethnic minorities held by prosecutors.

At the pretrial stage, Demuth and Steffensmeier (2004) found that while both black and Hispanic defendants fair worse than white defendants, Hispanic males receive the most disadvantaging decisions throughout the pretrial release process and are the group most likely to be detained. They contended that this outcome was largely related to the inability of many Hispanics and black defendants to afford bail. Wooldredge, Frank, and Goulette (2017) connected social contextual factors into the assessment of pretrial release practices and found that defendants were more likely to be detained during pretrial if they came from disadvantaged neighborhoods that were characterized by higher percentages of female-headed households, vacant residences, renters, and African Americans. Demuth (2003) contend that Minorities suffer a "triple burden" in that they are the group most likely to be required to pay bail to gain release, receive the highest bail amounts and are the least likely to be able to afford bail (Demuth, 2003, p. 873). Similarly, Kutateladze, Johnson, and Spohn (2014) found that pretrial status was associated with higher odds of incarceration for black and Hispanic defendants because they were more likely than white defendants to be detained and receive custodial pleas. Even during the post-release stage, research suggests that minority defendants are disadvantaged. In assessing the parole process for a state that utilizes an indeterminate sentencing scheme, Huebner and Bynum (2008) discovered that black inmates spent longer time in prison awaiting parole compared to white inmates. This was because black inmates attained a higher perceived risk to

the community, often had lower levels of education and had higher records of institutional misconduct.

Evidence of racial disparity at different stages of the criminal justice system bring up the notion of cumulative disadvantage. Wooldredge, Goulette, and Travis (2015) used this term to describe "a sequence of undesirable events whereby the occurrence of earlier negative events increases the odds of future negative events" (p. 189). Thus, in order to truly understand sentencing disparity as it pertains to race and ethnicity, multiple phases of the criminal justice system must be assessed. The following section highlights unwarranted disparities that exist based on a defendant's gender.

Determinate Sentencing and Gender Disparities

Studies generally reveal that the majority of crimes are committed by men. In fact, FBI statistics show that males are responsible for 73 percent of all arrests, 80 percent of violent crime arrests, and 63 percent of property crime arrests (FBI, 2014). Data on gender trends demonstrate that women constitute 18 percent of the overall United States correctional system and only 6 percent of the incarcerated population (Kaeble, Glaze, Tsoutis & Minton, 2016). Because of these disparate rates, more attention has been and continues to be devoted to male offending. Feminist criminologists contend that this creates an issue of generalizability in that scholars often apply notions of male criminality to explain female criminality (Britton, 2000). Such practice is detrimental because studies find that the crimes women commit and the ways they are victimized are vastly different than their male counterparts (Boppre & Boyer, 2019; Mauer, Potler & Wolf, 1999; Schwartz, Conover-Williams & Clemons, 2015). In terms of sentencing, the neglect of properly assessing gender differences is a major limitation because women have become the fastest growing group of prison inmates in the last 40 years (Bontrager, Barrick & Stupi, 2013).

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To understand the factors that contributed to this rise, a concise review of past sentencing literature on gender is provided in this section.

Crime data reveal a steep increase in female representation beginning in the 1980s. FBI Uniform Crime Report (UCR) statistics on juvenile offenders indicate that between 1986 and 1996, the arrest of girls for violent crimes increased by 124 percent, more than twice the percent increase of boys (60 percent) during the same time (FBI, 1996; Irwin & Chesney-Lind, 2008). Similar trends were found among adult women, with arrests rising by 33 percent from 1988 to 1992; men's arrests increased as well, but not nearly at the same rate (FBI, 1992). The most pronounced evidence of the increase in female representation in crime statistics is seen in incarceration trends. A 2019 report conducted by the Sentencing Project found that the number of incarcerated women increased from 26,738 in 1980 to 225,060 in 2017 (U.S. Sentencing Project, 2018). This equates to a rise of over 750 percent. Research shows that changes to state and federal sentencing policies are among the most commonly cited causes for the substantial growth (Chesney-Lind & Bloom, 1997; Daly, 1989; Daly & Tonry, 1997; Steffensmeier & Demuth, 2000). In an effort to reduce judicial discretion, policymakers created a one-size-fits-all sentencing scheme through determinate sentencing. Rather than permitting judges to offer differential treatment to women, the use of the sentencing guidelines were thought of as an "equalizer" of justice (Bontrager, Barrick & Stupi, 2013, p. 351). However, an impact on women during sentencing decisions was the exclusion of consideration of important factors affecting women, such as being the sole provider of children.

Theoretically, there are two approaches commonly applied to explaining the sentencing variation of women. The first is the chivalry hypothesis, which argues that women are often recipients of more leniency at the time of sentencing because criminal justice actors view them

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as less threatening, less dangerous, and less culpable compared to men (Daly, 1994; Griffin & Wooldredge, 2006; Steffensmeier, 1980). This is because the majority of those with decision-making power in the criminal justice system (e.g., police officers, prosecutors, and judges) are more likely to be men who possess a paternalistic desire to protect and aid women who appear to be in need (Moulds, 1978). The second is the evil woman hypothesis, which suggests that women who deviate from expected gender roles are treated more severely than similarly situated men (Crew, 1991; Nagel & Hagan, 1983; Tillyer, Hartley & Ward, 2015). The theory maintains that women commit a double deviance in breaking the law (first deviation) and violating accepted gender roles (second deviation). Scholars propose that because of this perception, system-involved women appear more blameworthy for their actions and deserving of harsher sentences (Herzog & Oreg, 2008; Nagel & Hagan, 1983).

The chivalry hypothesis is supported by several studies that have found that women often receive more lenient sentences than their male counterparts. For example, in assessing how switching to determinate sentencing impacted outcomes for women, Koons-Witt (2002) analyzed data from the time period before and after the state of Minnesota implemented its sentencing guidelines. The results revealed that gender was not a significant predictor of sentence outcomes during the pre- and post-implementation of the sentencing guidelines. However, when controlling for defendants who were mothers, findings displayed that women with dependent children were significantly more likely to receive a community alternative than defendants with no dependent children during both pre- and post-guideline phases. Starr (2014) conducted a study that found that women were recipients of shorter sentence lengths, were significantly more likely to avoid charges and convictions, and, when convicted, were twice as likely to avoid an incarceration sentence in federal court. Moreover, a study conducted by Fernando Rodriquez,

Curry, and Lee (2006) found that for male defendants, the odds of incarceration were 2.10 times higher than for female defendants for all offenses, 2.79 times higher for property offenses and 2.02 times higher for drug crimes.

Conversely, a number of studies support the evil women hypothesis. A study conducted by Nagel, Cardascia, and Ross (1980) found that while women are preferentially treated by criminal justice actors when compared to men, when women were compared to one another, those with offense patterns who depart most from "appropriate" gender role stereotypes fared much worse than those whose criminal behavior aligned with society's gender expectations. Similarly, Nagel and Hagan (1983) found that women prosecuted for crimes outside of their gender norm (e.g., armed bank robbery, auto theft) were sentenced more harshly than those prosecuted for crimes such as shoplifting or embezzlement. Nonetheless, the implications of the evil woman and chivalry hypotheses do not necessarily have to be pitted against one another; studies show both approaches can be at play. For example, Griffin and Wooldredge's (2006) study of Ohio's shift to determinate sentencing displayed significant post-guideline reductions in sentence length disparities based on the number of dependent children a woman had (chivalry hypothesis), yet it showed increased disparities in imprisonment likelihoods based on a woman's conviction of drug charges (evil women hypothesis). Likewise, results from a study conducted by Tillyer, et al. (2015) revealed that female defendants with lower criminal history scores received more lenient treatment relative to male defendants (chivalry hypothesis), whereas women with higher criminal history scores received more severe sentences (evil women hypothesis). Although a growing volume of sentencing literature that applies notions of gender in its analysis has been produced, this area is still under examined. Thus, it was a goal of this study to place aspects of gender at the forefront of the analysis rather than on the periphery.

Determinate Sentencing and Class Disparities

Class division in the criminal justice system is evident in the number of impoverished people who are incarcerated. Rabury and Kopf (2015) found that 57 percent of incarcerated men and 70 percent of incarcerated women had annual incomes below $22,500 in the year before their imprisonment. They also found that the median annual income of people who were in prison the year prior to their imprisonment was 41 percent less than non-incarcerated people of similar age. The Brookings Institution's (2018) report revealed that children who come from families in the bottom 10 percent of the income distribution are twenty times more likely to be imprisoned by the time they reach their thirties than children born into the top 10 percent (Looney & Turner, 2018). Moreover, scholars have found that those from a lower socioeconomic status (SES) are more likely than those of a higher SES to be arrested, charged, convicted, and sentenced to prison (Bagaric, 2015; Males & Brown, 2014; Piven & Cloward, 1971). Evidence shows that youthful offenders from the lowest SES commit street crimes at a rate of 1.5 times higher than youthful offenders from the highest SES, but are arrested at a ratio that is 5 times higher (Piven & Cloward, 1971). Reiman and Leighton (2012) maintain that this relates to how various acts are criminalized. They contend that dangerous acts committed by those of the higher class are normally not sanctioned, while less serious acts by the poor are heavily criminalized.

In terms of sentencing practices, Kleck (1981) identified two types of discrimination imposed on members of the lower class by the judicial system. The first is class discrimination, which refers to more severe treatment of lower-class defendants because of class prejudice. This may be due to hostility felt by middle-class decision makers towards defendants who are culturally different than them or because lower-class defendants better fit the image of a serious or dangerous criminal. Notions of intersectionality arise from this because research has found

that minority defendants who display elements of poverty receive the most punitive sentences.

For example, Spohn and Holleran (2000) found that unemployed black and Hispanic males were

substantially more likely to be sentenced to prison than employed white males. The second type

of discrimination that Kleck (1981) identified is economic discrimination. This arises when a

society's legal system is structured so that significant private economic resources are required in

order to effectively obtain full legal protection in the courtroom. Such a notion is evident by the

fact that low-income defendants receive more severe sentences than middle-income defendants

because they cannot afford to hire private counsel or make bail. Several studies have examined

this premise. For example, research has found that remaining incarcerated during the pretrial

phase increases a defendant's chance of receiving an incarceration disposition and a longer

sentence length (Chiricos & Bales, 1991; Harrington & Spohn, 2007; Williams, 2003). A recent

study by Stevenson and Mayson (2017) found that pretrial detention led to a 13 percent increase

in the likelihood of being incarcerated, a 42 percent increase in the length of the incarceration

sentence, and a 41 percent increase in the amount of non-bail court fees owed. Although the

current study does not directly measure a defendant's SES, several variables examine the

existence of both class and economic discrimination.

Conclusion

Although the use of sentencing guidelines was implemented to decrease sentencing

disparities, studies reviewed in this section displayed how this has not been the case in a variety

of ways. Scholarship on racial and ethnic sentencing disparities found that disparities still exist

and, to some extent, actually increased with the development of determinate sentencing (Baumer,

2013; Steffensmeier & Demuth, 2000; Ulmer & Kramer, 1998). Research on gender sentencing

disparities revealed that female criminality has skyrocketed since the passage of the 1984 SRA

(Bontrager, Barrick & Stupi, 2013; Sentencing Project, 2018). Yet, similar to other areas in criminology, addressing issues pertinent to women in sentencing literature has historically been neglected. In terms of class sentencing disparities, research on both class and economic discrimination suggests that it also leads to sentencing disadvantages (Kleck, 1981). Thus, the research reviewed in this section highlights how these elements lead to overall sentencing disparities. The remaining portions of this chapter review the less charted avenues of inter-judge sentencing disparity and contextual influences on sentencing outcomes. This literature reinforces the need for a multilevel approach to truly understand sentencing disparity.

Judicial Sentencing Disparities

Critics of indeterminate sentencing maintain that this structure promotes high levels of judicial discretion that created avenues for disparity (Frankel, 1973; Gertner, 2010; Heaney, 1991; Spohn, 2000; Yang, 2015). Much of this is believed to be attributed to judges holding different perceptions of crime seriousness and philosophies of punishment that impact their sentencing decisions. Judges who emphasize retribution may sentence differently than those who see deterrence or rehabilitation as the main objective of corrections (Anderson & Spohn, 2010; Stohr & Walsh, 2015). Under indeterminate sentencing, judicial preference bore a great amount of weight in the sentencing process with very little oversight. Concerns regarding this structure led to the development of the FSG with a main goal of reducing inter-judge sentencing disparity (Gertner, 2010; 28 U.S.C. § 991 (a)). Even though the 1984 SRA was passed to reduce such discrepancy, several studies have found that it still exists (Hofer, Blackwell & Ruback, 1999; Payne, 1997; Waldfogel, 1991). With a major component of this study being the examination of inter-judge sentencing disparity, it is important that proper attention is applied to the assessment of past literature on this topic. Moreover, research suggests that other judge-level factors, such as

their personal demographics, prior career experience, and caseload size also impact sentencing decisions (Clair & Winter, 2016; Gibson, 1978; Steffensmeier & Britt, 2001). The present section further examines these assumptions.

Inter-Judge Sentencing Disparities

Inter-judge sentencing disparity is one of the leading causes of unjust sentencing difference (Bourreau-Dubious, Doriat-Duban, Jeandidier & Ray, 2020). This form of disparity occurs when judges in the same jurisdiction sentence similarly situated defendants differently or impose the same sentence on dissimilar offenses (Adelman, 2017; Hofer, 2019; Hofer, et al. 1999). Early studies of practices during the indeterminate era displayed how these discrepancies were so pronounced that a defendant sentenced to three years by one judge could be sentenced to twenty years by another (Partridge & Eldridge, 1974). A study conducted by Austin and Williams (1977) further revealed sentencing variation under an indeterminate structure by examining judicial recommendations for dispositions of marijuana convictions. Results showed that 44 percent of the judges sampled recommended probation, 22 percent recommended imposing a fine, 17 percent recommended a combination of a fine and probation, and 17 percent recommended a jail term. Similar results were found for theft, burglary, and reckless driving convictions. In another study, Uhlman (1978) found that over half of the 91 judges sampled imposed sentences that were more than 10 percent harsher or more lenient than the overall mean. Additionally, 16 of the judges imposed sentences that were 30 percent harsher than the average and one judge imposed sentences that were nearly twice as harsh as those imposed by the other 90 judges.

Several scholars found that the shift to determinate sentencing reduced the prevalence of inter-judge disparity to a certain extent. Hofer et al. (1999) contended that the implementation of

FSG led to "modest but meaningful success in reducing unwarranted disparity among judges" (Hofer, et al., 1999; p. 241). Their findings indicated that the sentencing judge accounted for 2.32 percent of the variation in sentences in 1984-1985, but only 1.24 percent in 1994-1995. Similarly, results from a study conducted by Anderson, Kling, and Stith (1999) revealed that the expected difference in sentence length between judges fell from 17 percent (4.9 months) in the early years of the guidelines (1986-1987) to 11 percent (3.9 months) in the latter years (1988-1993). Conversely, other studies found that inter-judge disparity actually increased following implementation of the sentencing guidelines. Both Waldfogel (1991) and Payne (1997) found that the variability in sentencing outcomes attributed to the judge increased in the majority of federal district courts analyzed in their studies. They cited substantial unequal application of mandatory minimums and departures as being the main drivers behind these trends. In a more recent study, Wooldredge (2010) examined how judges in the same court system in Ohio contributed differently to extralegal sentencing disparities. The findings revealed that while half of the judges in the sample did not contribute to the significant extralegal effects on imprisonment, others displayed substantive extralegal factors on the basis of a defendant's race, age, and means of financial income. Anderson and Spohn (2010) conducted a multilevel assessment of sentencing disparity for three federal district courts. Their results revealed that the prison sentences defendants received varied depending upon the judge to whom the case was assigned.

Scholars have found that preconceived notions maintained by judges play a crucial role in promoting inter-judge sentencing disparities (Engen & Steen, 2000; Johnson, 2014; Kim, Spohn & Hedberg, 2015). For example, Clair and Winter (2016) conducted a qualitative study of 59 judges to attain a better understanding of their beliefs about racial disparity in the criminal justice

system. Their results revealed that several judges believed minority defendants deserved longer sentences because they committed a high number of crimes and were addicted to drugs at a higher rate than white defendants. A study by Steen, Engen, and Gainey (2005) revealed that judges' perceptions of dangerousness varied based on the defendant's race. For black defendants, being either a drug dealer or having a prior record (or both) was enough to mark them as threatening and deserving of a harsh punishment by the judge. The same was not found to be true of white and Hispanic defendants and was believed to be related to why they received lesser sentences. In addition to the characteristics of the defendant influencing sentencing, studies have found that inter-judge sentencing disparity is a product of the varying characteristics of the judges. The following section closely examines this assumption.

Judicial Characteristics

When examining inter-judge sentencing disparity, most attention has been focused on the differential sentencing of defendants with little consideration given to whether characteristics of the judge impact sentencing decisions (Adelman, 2019; Anderson, et al., 1999; Hofer, 2007; Hofer, et al., 1999). This is attributed to the fact that individual case-level data on judges is difficult to compile. Many data sources provide only limited information on judges, at best. Nonetheless, interesting results are found among the handful of studies that have examined this phenomenon. The present section reviews this research.

The most common characteristics of judges examined in past literature is race. While some studies found that minority judges sentence less severely than white judges, others found that minority judges sentenced the most severely (Hoffman, Shen Iyengar & Kruger, 2020; Holmes, Hosch, Daudistel & Perez, 1993; Johnson, 2006; Welch, Combs, & Gruhl, 1988). For example, Steffensmeier and Britt (2001) found that black judges were more likely to sentence

both black and white defendants to prison because they prefer to be viewed as conservative elites and "tokens" rather than underdog sympathizers (Steffensmeier & Britt, 2001, p. 754). Results showed that the likelihood of incarceration was 66 percent greater for cases heard by black judges compared to comparable cases heard by white judges. Conversely, Johnson (2006) found that minority judges were less likely to render incarceration sentences, particularly when faced with minority defendants. Similarly, Welch et al. (1988) found that while black judges sentenced both black and white defendants to prison at similar rates, white judges were more inclined to sentence black defendants to prison. The results from two studies by Spohn (1990, 1991) suggest that black and white judges sentenced similarly. In her examination of 13 black and 25 white judges, Spohn (1990) discovered that both black and white judges sentence black defendants more harshly than white defendants. In a study that compared sentencing in sexual assault cases, Spohn (1991) again found that black and white judges imposed similar sentences. From these studies, she concluded that a judge's race had relatively little predictive power vis-à-vis sentencing outcomes.

Scholars have examined a number of other demographic characteristics of judges outside of race. In terms of gender, studies have found that female judges often sentence more harshly than male judges (Myers & Talarico, 1987; Spohn, 1990; Steffensmeier & Hebert, 1999). In fact, Gruhl, Spohn, and Welch (1981) found that female judges were more likely to administer prison sentences, particularly for female defendants. In assessing cohorts of judges, Hoffman, et al., (2020) found that young female judges punished high harm crimes substantially more than their male and older female colleagues. Conversely, Boyd and Nelson (2017) found that male judges sentence similarly, except for female defendants, which female judges tend to sentence less harshly. Relative to age, studies have generally found that older judges sentence more severely

than younger judges (Kritzer, 1978; Myers & Talarico, 1987; Steffensmeier & Britt, 2001). Kulik, Perry, and Pepper (2003) contend that this is because judges tend to become more conservative as they age, which is reflected in their sentencing decisions. In a recent study that included an array of personal characteristics of judges, Johnson (2014) found that older, female, and minority judges were substantially less likely to administer incarceration sentences for trial convictions compared to their respective counterparts. Further, the effects of judge factors were often found to be on par with individual sentence effects. For example, being a minority defendant at trial increased the probability of incarceration by 35 percent, whereas being sentenced by a minority judge at trial decreased the chances of being incarcerated by 22 percent. The current study includes measures that further examine this phenomenon.

Previous research reveals that a variety of other characteristics of judges beyond personal demographics impact sentencing decisions. Studies that examined the employment background of judges discovered that those who had prior prosecutorial experience imposed harsher sentences than those with other prior experience (Gibson, 1978; Tate, 1981). Steffensmeier and Hebert (1999) found that prior prosecutorial experienced increased the likelihood of incarceration by 16 percent and resulted in an average of 1.71 additional months. Other scholars examined judicial tenure and found that judges who had been on the bench longer imposed more severe sentences than less-seasoned judges (Gibson, 1978; Welch et al.,1988). Moreover, Hogarth (1971) argued that a judge's caseload greatly impacts sentencing decisions. In illustrating this, he wrote "the work-load of a magistrate has a direct influence on the way in which he [or she] makes decisions" (p. 217). He maintained that judges with heavier caseloads may sentence more leniently because less punitive sentences require less thought and courtroom resources. The present study included several measures that assess how judge characteristics

impact sentencing variation. The following section of this chapter reviews literature on how the social context of a court's jurisdiction influences sentencing decisions.

Social Context and Sentencing Disparities

Social context refers to the immediate physical or social setting where daily life operates. According to Casper (2001), it "encompasses the immediate surroundings, social relationships and cultural milieus within which defined groups of people function and interact" (p. 465). Past research has found that the social context of the court and the surrounding community play an important role in sentencing decisions (Arazan, Bales & Blomberg, 2019; Britt, 2000; Dixon, 1995; Nardulli, Eisenstein, Flemming 1988; Nowacki, 2018). Myers and Talarico (1987) illustrate this by stating that "judges do not function in isolation…[rather] their preference and expectations are substantially conditioned by their work environment" (p.7). This highlights how judicial decision making is embedded in the organizational and social setting of the court. Elements such as the courtroom working group's interactions, caseload demands, and local political powers all influence sentencing outcomes (Kautt, 2002; Kramer & Ulmer, 1996, 2002; Ulmer, 1997). Additionally, previous research indicates that social context varies by jurisdiction (Eisenstein, Flemming, & Nardulli, 1988; Eisenstein & Jacobs, 1977; Ulmer & Kramer, 1996). This is because jurisdictions are comprised of sociodemographic, economic, and political characteristics that differ from one another (Britt, 2000). The majority of previous studies addressing this issue have assessed differences across courts and counties (Albonetti, 1997; Nardulli et al, 1988; Myers & Reid, 1995). The present study examined this across Kansas' judicial districts. This section reviews literature that further elaborates on these premises.

Courtroom Characteristics and Sentencing Disparities

Scholars have found that various courtroom social characteristics influence sentencing outcomes. The size and location of the court represent two of the most commonly researched characteristics. The urbanization hypothesis suggests that sentencing decisions vary by the degree of urbanization in the surrounding community (Britt, 2000, Dixon, 1995). Hagan (1977) examined this by comparing sentencing outcomes in two large Canadian cities to those in smaller rural jurisdictions. It was found that ethnic disparities were more pronounced in the rural jurisdictions. This was attributed to urban courts being more bureaucratized in nature, which led to less discriminatory treatment of minority defendants. Examining a similar premise, Dixon (1995) assessed 73 counties in Minnesota to understand how court size, urbanization, and bureaucratization impact sentencing decisions. The results indicated that rural courts were often characterized by complex divisions of labor and had a decentralized decision-making process. More specifically, the findings showed that the probability of incarceration increased significantly in courts with low prosecutorial bureaucratization. Conversely, courts with high prosecutorial bureaucratization displayed more lenient sentences because of plea bargains.

Elements such as caseload pressure and courtroom resources also have been found to influence sentencing decisions. For example, Ulmer (1997) discovered that increased caseloads resulted in lower odds of incarceration and shorter sentence lengths. In terms of courtroom resources, Mears (1998) found that 42 percent of courtroom actors in the sample indicated that the availability of courtroom resources impacted sentencing decisions. Scholars have also taken note of how trial and departure rates operate as organizational elements that influence sentencing outcomes. Kautt (2002) found that both the guideline compliance rate and the rate of substantial assistance departures influence sentence length outcomes. In a more recent study, Ulmer and

Johnson (2017) found that the collective views of federal judges were related to the variation in judicial guideline departures across federal district courts. In particular, more favorable perceptions of the guidelines by judges in a jurisdiction resulted in increased guideline conformity. Collectively, the district-level predictors explained 45 percent of the total inter-district variation in judicial downward departures. As described below, the present study examined the influence of select courtroom characteristics on sentencing decisions in Kansas' judicial districts. The following section reviews literature on how sentencing outcomes vary across court jurisdictions.

Cross-Jurisdictional Evidence of Sentencing Disparities

A largely neglected area of research is the examination of how punishment outcomes vary across court jurisdictions. The limited number of studies that have examined this issue have found evidence of between-court variation in criminal case processing (Dixon, 1995; Eisenstein & Jacob, 1977; Feldmeyer & Ulmer, 2011; Kautt, 2002; Sampson & Lauritsen, 1997). Eisenstein and Jacob's (1977) seminal work was one of the first to study this phenomenon. They assessed dispositions in three courts located in Baltimore, Chicago, and Detroit. Their findings revealed substantial variation across these courts. Baltimore was characterized as a city of trials. Chicago was characterized as a city of negotiations, and Detroit was characterized as a city of plea bargains. In a later study, Eisenstein et al. (1988) examined processing and sentencing outcomes across nine middle-sized courts in Michigan, Illinois, and Pennsylvania. Their results indicated that each court developed unique county-level legal cultures that influenced case outcomes. In particular, individual courts were characterized by a power structure, courtroom technologies, case processing strategies and going rates. Myers and Reid (1995) conducted a similar study in three counties in Florida. Their findings indicated that the routinization of original charges, bail

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arraignment, and convictions operated differently in each county in regard to sentencing decisions. Individual county courts were found to develop their own protocol for who should receive more severe sentences.

Several scholars have found that the characteristics of the social environment in which a county is embedded have an impact on sentencing decisions. One of the most salient findings is that high rates of incarceration are related to higher proportions of minorities in a community (Liska, Lawrence & Sanchirico, 1982; Michalowski & Pearson, 1990). Myers and Talarico (1987) discovered that a minority population of 25 to 49 percent resulted in greater use of imprisonment dispositions than when the black population was under 25 percent. Wang and Mears (2010a, 2010b) discovered that the probability of receiving a prison sentence increased as the representation of blacks in the population increased. Studies conducted by Ward, Farrell, and Rousseau (2009) and Farrell, Ward and Rousseau (2009) found that the effect of defendants' race on imprisonment decisions differed across judicial districts in accordance with the minority representation of courtroom actors; that is, federal district courts that had increased representation of black prosecutors were the least likely to sentence defendants to prison.

Studies have found that other contextual factors indirectly related to race have an effect on sentencing outcomes across jurisdictions as well. In terms of socioeconomic status (SES), Britt (2000) found that while lower racial income inequality in a community decreased the likelihood of incarceration, unemployment was found to be a significant predictor of sentence length. Wooldredge and Thistlewaite's (2004) bi-level analysis of sentencing outcomes in Ohio revealed that lower SES at both the individual and neighborhood levels resulted in higher odds of incarceration. Relative to race, results revealed that minority defendants in lower SES neighborhoods had the highest likelihood of receiving an incarceration sentence. Other elements

of a community's social context found to influence sentencing decisions include political party affiliation and crime rates. For example, studies have found that courts located in communities with a high representation of Republican voters tend to administer the most severe sentences (Kramer & Steffensmeier, 1993; Kramer & Ulmer, 1996). Studies that examined crimes rates found that judges in counties with higher crime rates, in particular for violent and drug crimes, tend to administer the most punitive sentences (Crawford,

Chirico, Kleck, 1998; Jacobs & Britt, 1979; Myers & Talarico, 1987).

Ulmer and Johnson (2004) and Johnson (2006) conducted a pair of multilevel studies that examined the influence of social contextual variables on sentencing outcomes. Ulmer and Johnson's (2004) study revealed that large courts were considerably less likely to incarcerate than medium or smaller courts, counties with heavier caseloads were relatively less likely to incarcerate defendants, trial penalties were greater in counties with heavier caseloads, and minority defendants were given longer sentences in counties in which they represented a higher proportion of the population. Relating this back to inter-judge sentencing disparity, Johnson (2006) applied a three-level hierarchical model to estimate the influence of judge and county context on individual variations in sentencing. The findings indicated that both minority and older judges were found to be significantly less likely to incarcerate defendants, defendants sentenced in small courts were less likely to be incarcerated, and defendants sentenced in counties with available jail space were more likely to be incarcerated. These findings suggest that the judicial backgrounds of judges and the social context of judicial jurisdictions influence sentencing outcomes and warrant future studies to examine this premise. The present study further expanded on this research.

Conclusion

Scholars have applied considerable attention to assessing notions of general sentencing disparities. The literature reviewed above highlights how extralegal factors such as a defendant's race, gender, and class still impact sentencing decisions, even after the implementation of sentencing guidelines (Bontrager et al. 2013; Rabury & Kopf, 2015; Spohn, 2000). Less attention, however, has been applied to examining how components of the sentencing judge and the social context of a court's jurisdiction also contribute to sentencing disparities. The current study advanced the field's knowledge of this phenomenon by examining the effects of the characteristics of the defendant, the court, and among judicial districts on sentencing decisions.

Theoretical Review of Relevant Literature

This section examines the theoretical framework applied in the present study. The theories used are: focal concerns theory and the racial threat perspective. Focal concerns theory provides a rationale for the decision-making processes of courtroom actors during the sentencing process. In the present study, this theory was used to explain inter-judge sentencing disparity. The racial threat perspective offered an explanation for why punitive criminal justice actions are often taken when minority representation in a community rises. Application of this theory in the present study presented a critical explanation of how social context and minority status affect sentencing decisions. Drawing on these perspectives, hypotheses were later developed and presented to support the empirical examination of sentencing disparity. Such efforts not only provide a deeper understanding of how these perspectives explain sentencing variation, but also assessed their applicability to sentencing practices in Kansas.

Origins of Focal Concerns Theory

Focal concerns theory originated from work done by Miller (1958) to explain subculture ideology used by delinquent youth. He utilized the term "focal concerns" to illustrate six aspects of living in an impoverished community that were found to promote high rates of violence. Those aspects were "trouble", "toughness", "smartness", "excitement", "fate", and "autonomy" (Miller, 1958, p. 5). Miller (1958) contended that delinquency through these focal concerns was a part of a learned culture value in which a high degree of emotional involvement exists.

Hogarth (1971) was the first to apply focal concerns theory to sentencing practices. He contended that sentencing outcomes were the result of a complex decision-making process in which judges consider a variety of diverse factors simultaneously at the time of sentencing. Hogarth tied a great deal of the decision-making process in sentencing to the background and case processing experience of the judge. Scholarship in the 1990s further expanded on this notion (Albonetti, 1991; Steffensmeier, Kamer & Ulmer, 1995; Steffensmeier, Ulmer, & Kramer, 1998). Albonetti (1991) provided the basis for focal concerns theory through his avoidance/causal attribution theory. He contended that prosecutors and judges work in an uncertain environment and usually do not receive sufficient information to make accurate predictions of defendants' culpability and future criminal behavior. Thus, they often have to make inferences about defendants based on both legal and extralegal relevant factors. Steffensmeier, Ulmer, and Kramer (1998) extended this premise by suggesting that judges primarily take into consideration three focal concerns during the sentencing process. The first is *blameworthiness*, which refers to the degree of harm that the defendant caused the victim. Based on the "just desserts" philosophy, application of this concern asserts that a defendant's potential for punishment is dependent upon his or her culpability to the crime and the degree of injury

caused. Following the idea that criminal punishment should fit the crime, the sentencing guidelines are designed so that serious crimes are met with serious time. It is because of this structure that offense severity often serves as the most significant factor in sentencing. Nonetheless, blameworthiness can also lead to leniency at sentencing as judges often administer reduced sentences when mitigating circumstances exist. In cases in which the defendant played a minor role or was previously a victim, the judge maintains the ability to administer a lighter sentence. Under determinate sentencing this is often done through downward departures.

The second focal concern is *protection*, which refers to the court's responsibility to protect the community from future criminality. This notion places emphasis on incapacitating the offender and deterring would-be offenders from future criminality. Predictions about the dangerousness of the defendant is often based on both legal and extralegal factors. Legal factors include the nature of the offense, the defendant's criminal history, and particular facts of the crime, such as the use of a deadly weapon. Extralegal factors include elements such as the defendant's employment status, educational level, housing situation, and family ties.

The third focal concern is the *practical restraints and consequences* of sentencing decisions. This notion considers both organizational and individual concerns. Organizational concerns include maintaining working relationships among courtroom actors, ensuring the stable flow of cases, and being cognizant of correctional overcrowding issues. It is here where social contextual variables such as jail capacity and caseload size impact sentencing decisions.

One of the first applications of focal concerns theory to the sentencing literature was Steffensmeier's (1980) work on gender disparity. He proposed that women were often the recipients of more leniency during sentencing than men because of five factors: practicality, chivalry, naiveté, perceived permanence of behavior, and perception of dangerousness.

Practicality reflected judges' beliefs that most female defendants had children and sending a mother to prison would be too disruptive for the family. Chivalry referred to judges' protective and benevolent attitudes towards women. This reflected judges' paternalistic desire to protect and aid women who appear to be in need. Naiveté referred to judges' perceptions that women were less capable than men of committing criminal acts. Perceived permanence of the behavior suggested that judges often believed women were more conducive to reform than males. Perceptions of dangerousness was found to be in favor of women in that judges often perceived women as less of a threat than men. In a later study, Kramer and Steffensmeier (1993) used data from the Pennsylvania Commission on Sentencing and qualitative interviews with courtroom actors to study the link between focal concerns and gender sentencing disparities. Results from the quantitative assessment showed that gender had a small effect on the likelihood of imprisonment for female defendants and negligible effects on sentence length. Combining these findings with results from the qualitative interviews revealed that judges' decisions were primarily driven by blameworthiness and practicality. The main findings suggest that differential weight was attributed to women in terms of their perceived involvement in crime, child-care responsibilities, emotional/physical issues, and remorsefulness, which led to lighter sentences.

A number of studies have found support for the applicability of focal concerns theory to racial sentencing disparities. Bishop and Frazier (1995) maintained that sentencing decisions related to focal concern factors like employment status and educational attainment had a racial undertone in that many minority defendants often lacked similar status in these areas when compared to white defendants. They maintained that because of this, African Americans were often perceived as more of a risk to the community than their white counterparts and thus deserving of harsher penalties. Steffensmeier et al. (1998) found similar results, but also included

measures of age and gender in their assessment of sentencing outcomes in Pennsylvania. In terms of age, they found that young and old defendants of both races (black and white) and genders were treated more leniently than defendants aged 18 to 20. In relation to gender, female defendants were treated more leniently by the courts than male defendants. Lastly, in regard to race, black males received harsher treatment than any other group of defendants. Consistent with focal concerns theory, Steffensmeier et al. (1998) concluded that judges make attributions regarding blameworthiness, dangerousness, recidivism risk, and practical organizational consequences that lead to these outcomes.

Moreover, Kramer and Ulmer (2002) applied focal concerns theory to assess the use of downward departure sentences for serious violent offenders and found that sentencing often was impacted by the race of the defendant. Their findings indicated that defendants convicted of aggravated assault, those who plead guilty, young black women, and defendants sentenced in large urban counties were more likely to receive downward departures. Conversely, those convicted by trial, young Hispanic males, and defendants sentenced in small rural courts were less likely to receive downward departures. Finding support for focal concerns theory, they concluded that perceived dangerousness and community protections were key considerations in giving downward departures. Hartley, Maddan, and Spohn (2007) conducted a similar study that explored the effect of focal concerns in the federal judiciary. Utilizing a structural equation modeling (SEM) methodology, their findings indicated that minority defendants were two times as likely to go to prison and received two more months on average than white defendants. Also finding support for focal concerns theory, Hartley et al. (2007) found that perceived *dangerousness* was higher for minority defendants convicted of violent crimes, resulting in their being viewed as the most dangerous offenders and deserving of the longest sentences.

The scholarship reviewed in this section highlights how judges often use focal concerns in a fashion that leads to sentencing variation. With inter-judge disparity as one of the main drivers of sentencing inequality, it is imperative that proper application of a theoretical framework is used to closely examine this phenomenon. Application of focal concerns theory in the present study was used for that purpose. This was operationalized through assessment of individual case-level factors that produced results similar to findings of other focal concerns literature. The following section offers a critical theoretical perspective of social context that can be used to explain how a minority population growth in a community can lead to an increase in punitive criminal justice actions that influence sentencing decisions.

The Racial Threat Perspective

The racial threat perspective is a theoretical framework used to explain the association between minority population size and sentencing severity. First proposed by Blalock (1967), the premise behind this theory is that growing racial and ethnic minority populations constitute threats to white communities. More specifically, the theory maintains that as the relative size of racial and ethnic groups increases, members of the white-majority group perceive the change to be a growing threat in which action is needed to suppress the minority population. In such situations, the law often operates as a form of social control. Providing empirical support for this assumption, studies find that a growing minority population is linked to larger police presence, more arrests, stricter laws, harsher punishments, and even increased executions (Cano & Spohn, 2012; Jacobs, Carmichael & Kent, 2005; Kent & Jacobs, 2005; Liska & Chamlin, 1984). Thus, the law serves as an instrument for the dominant group to maintain power and exercise control over "threatening" populations.

Blalock (1967) proposed that racial threat takes two forms: economic threat and political threat. Economic threat refers to challenges that minorities present to whites in terms of jobs, housing, and other economic resources. Political threat reflects the feelings that whites experience when minorities enhance their political power. Blalock (1967) contended that a curvilinear relationship exists between both types of threats and social control. Utilizing the term "decelerating threat effect," he maintained that the relationship between minority economic threat and social control often becomes weaker as economic threat increases (p. 145). Under such conditions, increases in the minority population are anticipated to produce smaller increments in inter-group competition in situations where the minority population size is already large. As it pertains to political threat, Blalock (1967) argued that as the minority population size increases, "the need for a higher degree of mobilization of resources by the majority group to maintain dominance becomes extremely great" (p.154). He used the term "accelerating threat effect" to illustrate that the relationship between minority threat and social control intensifies at higher levels of political threat (Blalock, 1967, p. 154). The racial threat perspective suggests that the racial composition of a place is a salient predictor of government social control. The collective concern of the white majority that its position of economic privilege and political dominance is in jeopardy increases prejudice, discrimination, and hostility towards minority populations. The law is then utilized as a mechanism of social control to neutralize the perceived threat and maintain the status quo.

In context of the courtroom, racial threat effects arise through power dynamics of the legal system and biases held by those within courtroom communities. Agreements about the perception of a racial threat and the necessary response needed to subdue the target population often constitute a substantive rationality that directly impacts actions taken by courtroom actors.

Studies have found that a mutual agreement among prosecutors, defense attorneys, and judges

can promote support for tough sanctioning of minorities as their relative size and perceived threat

increases (Savelsberg, 1992; Ulmer & Kramer, 1998; Ulmer & Johnson, 2004). In particular,

judges may feel pressure to impose tougher sentences on minority defendants when community

members perceive an increasing minority presence as threatening (Chiricos, Welch, & Gertz,

2004). Such efforts are done to display control over minority populations who are often viewed

as the cause of crime. Thus, mechanisms of racial threat can influence judicial decision making.

Aligning with this premise, Green, Strolovitch & Wong, (1998) developed a similar concept that

suggests that white homeowners are willing to tolerate only a limited number of minorities in

their region and become fearful when minority in-migration exceeds a token presence. Research

suggests that the tipping point occurs when county minority populations exceed 30 percent

(Green, et al. 1998; Wang & Mears, 2010a). Petrocelli, Piquero, and Smith (2003) contend that

as a result of this, legislators make laws that criminalize actions of the minority group, and police

officers then do the "dirty work" by arresting minorities at high rates in these communities (p. 3).

Courtroom actors follow suit in administering punitive actions directed toward minorities.

Studies support this assumption, finding that a rise in the percentages of minority population is

linked to increases in racial and ethnic imprisonment decisions, sentence lengths, and granting of

departures (Johnson, 2005; Myers & Talarico, 1987; Wang & Mears, 2010a, 2010b; Ulmer &

Johnson, 2004).

 Several scholars have found support for the racial threat perspective as it applies to

sentencing. For example, Ulmer and Johnson (2004) conducted a multilevel assessment of

sentencing outcomes in Pennsylvania and found that minority defendants in counties in which

minority group representation was high received sentences that were significantly longer than

their racial and ethnic counterparts in other counties. Ward, Farrell, and Rousseau (2009) used the racial threat perspective to assess the relationship between minority courtroom actors and minority population size relative to their community. They found that black representation among courtroom actors was correlated with a reduction in the perceived threat posed by minorities. More specifically, federal district courts that had increased representation of black prosecutors were the least likely to sentence defendants to prison. Wang and Mears (2010a) found that a growing racial threat contributed to increasing the probability that a defendant would receive a prison sentence when baseline levels of the threat were high. Interestingly, results showed that increases in punitive sanctions equally affected white and black felons alike. Such findings suggest that racial threat effects are racially dispersed rather than targeted solely towards minorities.

Immigrant and Ethnic Threat Perspective

A major component of the present study is the examination of minority groups other than black and white defendants, namely Hispanic defendants. A recent and growing research trend has been to extend the racial threat perspective beyond race alone (Feldmeyer, Warren, Siennick, & Neptune, 2015; Wang & Mears, 2015). Focusing solely on racial population growth is a major limitation because it neglects other groups such as ethnic minorities and immigrants. This is a significant limitation because the immigrant population in the United States has more than doubled in the last 30 years. Statistics indicate that the foreign-born population increased from 13.6 million in 1980 to nearly 40 million in 2010 (Passel & Cohn, 2008; U.S. Census Bureau, 2010). Studies have found that many Americans believe that the growth in the immigrant population contributes to increased social problems and elevated levels of crime, which justifies any punitive sanctions directed towards immigrants (Horowitz, 2001; Suro, & Escobar, 2006).

Relative to ethnic threat, it is imperative to include groups such as Hispanics because they represent the highest proportion of ethnic minorities in the country's and are the fastest growing minority group (U.S. Census, 2018). They also attain an additional deviant label based on the perception that they are often "drug pushers" and "narcotics traffickers" (Steffensmeier & Demuth, 2000; p. 710).

Expanding on these notions, Feldmeyer et al. (2015) included measures for both immigrant threat and "Latino threat" in their analysis of sentencing data from the state of Florida. Their findings indicated that black defendants were more likely to be sentenced to prison and given longer sentences in counties with a growing black population. In contrast, although Latinos were found to be more likely than whites to be sentenced to both prison and jail, this disadvantage did not appear to be correlated with county levels of Latino population growth. In terms of immigrant threat, there was no evidence supporting the claim that the probability of Latino incarceration increased with their population size. Feldmeyer et al. (2015) concluded that while black sentencing disadvantages are amplified with growth in their population, Latino effects on sentencing are much more stable across racial and ethnic contexts. Additionally, although recent immigrant growth has created concern among white Americans, public perception of immigrant threat has not translated into harsher sentencing decisions for immigrant defendants, in general, like those applied to Latino and black defendants.

The application of a wider range of minority threats has permitted scholars to assess which groups' perceived threat has the greatest effect on sentencing outcomes. Wang and Mears (2010b) examined different dimensions of the minority threat perspective by separating racial and ethnic threat in their analysis. They found that prison sentences were more severe when the size of the black population was large. In contrast, a larger Hispanic population size was

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associated with a decline in prison sentences; however, the opposite was found to be true for jail sentences. In areas with a larger Hispanic population, the probability of receiving a jail sentence was greater, while the probability of receiving a jail sentence declined for areas with larger black populations. Since prison sentences were conceived as more punitive than jail sentences, Wang and Mears (2010b) concluded that there was more support for the racial threat perspective than ethnic threat. These findings were only true for minority political threat, as no punitive sanction was found to be associated with economic threat. In a similar study, Wang and Mears (2015) found that while increases in the black population of more than 25 percent correlated with a higher probability of an incarceration disposition being received by black defendants, no evidence was found of a similar relationship for Latino defendants. This study provides further evidence that the racial threat effect has more salience than the ethnic threat effect in regard to influencing sentencing outcomes. Even with the ongoing debate over which threat perspective is most salient, the minority threat perspective serves as a credible critical theory and is one of the main theoretical frameworks that informed the present study.

Conclusion

This chapter began with a review of the creation of the sentencing guidelines in the federal judiciary and within the state of Kansas. The following section highlighted how, even though the use of determinate sentencing was instituted to reduce unwarranted disparities, they still exist based on a defendant's race, gender and class. The subsequent sections established how judge and social contextual variables also contribute to sentencing disparities. This led to an identification of focal concerns theory and the racial threat perspective as the underlying theories of the current study and a review of the related literature. The following chapter describes the theoretical approaches and hypotheses that were applied and tested in this study.

Chapter 3 - Theory and Hypotheses

This chapter reviews the theories and research hypotheses tested in the present study. As highlighted above, the main theories applied were focal concerns theory and the racial threat perspective. Drawing on these perspectives as the study's theoretical underpinning, hypotheses were developed to support the empirical investigation of sentencing disparity in Kansas. The chapter begins with a review of how these theories are applicable to the current study, followed by sections on the major research gaps that were addressed and an identification of the hypotheses that were tested. This leads into chapter four, which presents the methodology used to examine these hypotheses.

Application of Focal Concerns Theory

Focal concerns theory asserts that sentencing outcomes are the result of a complex decision-making process in which judges must consider several diverse factors simultaneously at the time of sentencing (Steffensmeier & Demuth, 2000, 2001). Judges must assess the defendant's likelihood of recidivating based on elements such as the nature of the offense, specific case information, and the defendant's criminal history. Additionally, judges often have to make inferences about the causes of the crime, the defendant's character and the necessary punishment. This is because elements such as the risk of recidivism and the defendant's character are never fully known. Scholars maintain it is because of this uncertainty that judges often have to utilize focal concerns to help make their sentencing decisions (Albonetti, 1991; Steffensmeier et al, 1995, Steffensmeier, et al, 1998). The three focal concerns that judges are believed to use are in references to blameworthiness, protection to the community, and application of practical restraints (Steffensmeier & Demuth, 2000, 2001).

In the current study, application of this theory was used to examine if focal concerns were applicable to sentencing practices in Kansas. Measures of focal concerns were assessed at the individual case-level. This level combined legal components of the case in conjunction with characteristics of the defendant and judge. Legal factors, including the defendant's criminal history score, type of offense and pretrial detention status, along with extralegal factors, such as the age, race/ethnicity, and gender of the defendant, were examined. This was combined with background information of judges to determine if varying components among them resulted in different sentencing outcomes for defendants. As will be presented in the discussion chapter (chapter 6), this study drew on past focal concerns literature to assess how study results were applicable to the theory. The previous research that was reviewed indicates that studies show mixed results regarding the impact of determinate sentencing on inter-judge sentencing disparity. While some scholars maintain that determinate sentencing reduced unwarranted disparities (Anderson et al., 1999), others suggest that it made little difference (Hofer et al. 1999) or actually increased inter-judge sentencing disparity (Anderson & Spohn, 2010; Waldfogel, 1991; Wooldredge, 2010). Thus, a key purpose of applying this theory to the present study was to examine how the application of blameworthiness, protection for the community, and practical constraints influence sentencing decisions differently among the judges sampled. Key independent variables analyzed included case specific information, defendant demographics, and background characteristics of judges. An important element to note is that while focal concerns theory relies on the assessment of judicial decision making, this study assessed components of defendant's cases. Thus, rather than being couched as a full assessment of focal concerns, this study should be viewed as an examination of specific aspects of the theory as it applies to individual-level defendant case characteristics.

Application of the Racial Threat Perspective

The racial threat perspective was used as a critical approach to understanding sentencing disparity on the basis of a defendant's race and ethnicity in this study. Critical theory refers to a specific theoretical tradition of the late 1920s that was first developed in the Frankfurt School but is rooted in the works of revolutionary scholars Karl Marx and Max Weber (Applerouth & Edles, 2016). The central premise behind this theory is that the elite or dominant class maintains the majority of power in society and utilizes their position to oppress the lower class. In terms of the criminal justice system, scholars have suggested that the law, and mechanisms of its enforcement, are used by dominant groups in society to minimize threats of the lower class. Blalock (1967) contended that punitive actions toward minorities are highest in communities with a growing minority population.

An examination of the racial demographics of Kansas shows that, although the state is predominantly white (86.4 percent), there are several counties comprised of a high population of minorities. In fact, Seward, Ford, Wyandotte and Finney counties each have a minority representation of over 55 percent (U.S. Census, 2018). While Wyandotte County is located in the eastern portion of Kansas and is part of a major metropolitan area, Seward, Ford, and Finney counties are all nonmetropolitan counties located in the western region of the state. Additionally, while Wyandotte County is comprised of mainly African Americans, the latter counties encompass industrial communities comprised of mainly Hispanics. Such a spatial distribution permitted a unique look at racial and ethnic disparity through varying locations and social contextual dynamics. With minorities representing over three times their population in Kansas prisons compared to the general public, a critical theory was needed to closely examine this phenomenon. Analysis at the judicial district level examined if judicial districts with a high

proportion of minorities sentence differently than those with a smaller proportion. Thus, application of both ethnic and racial threat perspectives offered a plausible explanation of this occurrence. The key independent variables that measure this included both racial and ethnic composition of each judicial district. An examination of the extent to which judicial districts with higher populations of minority residents are characterized by higher odds of imprisonment or longer sentences will be used to assess the applicability of this theory.

Research Gaps and Issues

This section highlights the major research gaps and issues that the present study attempted to fill and address. Dating back to the late 1970s, scholars have provided notable theoretical and empirical guidance to understanding the relationship between sentencing and avenues of unwarranted disparities. Despite the major contributions of the past, the present study sought to address several gaps in sentencing literature that remain.

The first research gap was the limited number of sentencing studies conducted in Midwestern states. Although there have been sentencing studies in this region, most were either in Minnesota or Ohio (Griffin & Wooldredge, 2006; Koons-Witt, 2002; Stolzenberg, D'Alessio, 1994; Wooldredge, Griffin & Thistlethwaite, 2011). The inclusion of Kansas in this body of literature added the opportunity to examine the state's unique judicial selection process, its current prison crisis, and its pronounced evidence of racial disproportionality. The second research gap was the lack of Hispanics in sentencing studies. This largely stems from insufficient ethnicity data and the strong focus on racial sentencing disparity. Neglecting proper assessment of Hispanics is a major limitation because they are the fastest growing ethnic minority group in the country and studies have found they are often times punished the most severely at sentencing (U.S. Census, 2018; Steffensmeier & Demuth, 2001; Spohn & Holleran, 2000). Assessing the

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sentencing disparity of Hispanics in Kansas was imperative because there are several nonmetropolitan communities in which they outnumber whites. Kansas therefore provides an ideal setting to examine both the racial and ethnic threat perspectives. The present study amended this limitation by also focusing on how sentencing disparities affect Hispanics.

The third research gap was a lack of up-to-date data on a topic that is timely in the sentencing literature. Because the most recent study presenting data examining a similar premise was published more than ten years ago (Anderson & Spohn, 2010), it was critical that updated data be utilized. The current study amended such limitation by analyzing data from state fiscal years (FYs) 2016 to 2018 on a topic that follows recent criminal justice reform efforts.

In terms of methodology, another research issue addressed in this study regards the field's reliance on individual-level analysis of defendants. Findings in studies at this level reveal that the effect of a defendant's race is often mediated by factors such as the severity of the offense, the defendant's prior record and the method of case disposition (Albonetti, 1997; Kleck, 1981). Although noteworthy, limiting the analysis solely to the characteristics of defendants negates the effects of other important factors, including the influence of courtroom actors (e.g., judges) and the judicial district's social context on sentencing outcomes. The present study's methodology addressed this gap through its application of a multilevel modeling framework.

Theoretically speaking, the use of a multilevel approach is appropriate because it aligns with varying levels of influence on sentencing decisions. Analysis began at the individual case-level to determine which variables influenced sentencing outcomes. It was here where both legal and extralegal factors surrounding defendants were perceived to impact sentencing decisions. Research at this level also examined sentencing variation attributed to the sentencing judge.

Demographics and professional backgrounds of judges were assessed to determine whether these factors exerted influence on their sentencing decisions.

Courts do not operate in social isolation; rather, they are embedded in a larger social context that includes the culture, characteristics, and organization of the community, and the broader geographical area in which the court is located. In fact, prior research suggests that a community's sociodemographic, economic, and political characteristics all have a great impact on the sentencing decisions made by courts located within them (Britt, 2000, Johnson, 2006). Therefore, this research included a second-level that analyzed Kansas' judicial districts. This allowed an examination of how the characteristics of the judicial districts influence the sentencing of defendants located within them.

This multilevel approach more accurately estimates the complexity of the relationship between individual case- and judicial district-levels than single-level analysis. The use of a multilevel framework for analysis is distinctive in that only a few studies have been able to obtain measures of background characteristics of judges. In addition, previous multilevel studies of social context were all based on county-level measures; none have analyzed judicial district-level measures (Britt, 2000; Johnson, 2006; Steffensmeier & Hebert, 1999). The establishment of geography in this study was based on judicial districts rather than on counties because, in Kansas, zoning of judicial districts is dependent upon the volume of cases; that is, large metropolitan counties with a high number of cases are typically represented by one judicial district, whereas judicial districts in nonmetropolitan counties with few cases are typically represented by several counties (see Appendix C). Thus, judicial districts represent a better proxy of social context than counties.

Research Questions

The three research questions for this study were: (1) Are disparities in sentencing outcomes in Kansas based on extra-legal factors of defendants? (2) Do sentencing outcomes vary among judges? (3) Do sentencing outcomes vary across judicial districts? The answers to these questions served as the basis of the analysis in the present study.

Study Hypotheses

In the remaining portion of this chapter, I review the main hypotheses that were tested. These hypotheses derived from ideas and concepts drawn from focal concerns theory and the racial threat perspective. Hypotheses were used to assess sentencing variation in Kansas at the individual case- and judicial district-levels. Use of these hypotheses establishes the anticipated results and leads into the following chapter, which discusses in detail the methodology used to test these hypotheses.

Individual Case-Level Hypotheses

In the current study, the first level of analysis is of individual defendant cases and sentencing judges. This assessed how case-specific information in combination with demographic elements impact sentencing decisions. Examining case-specific information permitted the assessment of sentencing disparities among criminal defendants who were similarly situated from a legal standpoint. The intended function of the sentencing guidelines is to eliminate everything but the severity of the current offense and past criminal history from sentencing decisions; therefore, elements such as the type of offense and the number of prior convictions are expected to have the greatest impact on sentencing outcomes. Consistent with this assumption, several studies have found that defendants with more serious crimes and higher criminal history scores receive the harshest sentences (Engen & Gainey, 2000; Hogarth, 1971;

Wang & Mears, 2010a). Theoretically speaking, the *blameworthiness* focal concern supports this claim in that those who commit the most serious crimes are deserving of the most punitive sentences because of the amount of harm they caused the victim. Additionally, those with prior convictions attain an added level of blameworthiness not given to first-time offenders, and incapacitating them for longer periods of time supports the *protection from the community* focal concern. Based on these assumptions, the following hypothesis was developed:

- H_1: Legal factors (e.g., criminal history score, pretrial status and type of offense) will be the most important elements for both the incarceration and sentence length decision.[4]

In terms of the demographic characteristics of the defendant, sentencing guidelines were implemented because it was perceived that sentencing through a determinate scheme was the most effective practice to reduce racial and geographical biases (Frankel; 1973; L.1989, Ch. 225, Sec. 1; 28 U.S.C. § 991 (a)). Although the sentencing guidelines were implemented to eliminate the inclusion of extra-legal factors, research has found that defendants' age, race, ethnicity and gender still greatly influence sentencing decisions (Albonetti, 1997; Bushway & Piehl, 2001; Steffensmeier et al., 1998). For example, Steffensmeier et al. (1998) applied focal concerns theory to examine sentencing outcomes and found that black, young, and male defendants were more likely to receive prison sentences and serve longer sentences than their white counterparts. Steffensmeier (1980) similarly contended that each focal concern was conceptualized by judges in a manner that resulted in more lenient sentences for women than men. Moreover, prior research suggests that the effect of age on incarceration is curvilinear (Steffensmeier, et al.,

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[4] Most important in that legal factors will be the variables with most statistical significance, have the highest odds ratios for the imprisonment decision and greatest impact on sentence length.

1995). Sentences are anticipated to increase in severity for defendants until their mid-30s and then begin to reduce as defendants get older. Based on these notions, the following hypotheses were created:

- H_2: Minority (racial/ethnic) defendants will receive harsher sentences than non-minority defendants.[5]

- H_3: Male defendants will receive harsher sentences than female defendants.

- H_4: A non-linear relationship exist between age and sentence.

Historically, a fundamental component of the sentencing literature is the examination of sentencing disparity of individual defendants. More recent research on sentencing has placed emphasis on considering the influence of individual court decision makers, such as judges (Johnson, 2005, 2006; Steffensmeier & Britt, 2001; Ulmer & Johnson, 2004). By far, most attention in this growing body of literature is devoted to assessing how the demographic characteristics of judges impact sentencing decisions. It is here where studies have found that minority and female judges tend to sentence more leniently than their white male counterparts (Steffensmeier & Britt, 2001; Steffensmeier & Hebert, 1999; Spohn, 1990; Welch et al., 1988; Uhlman, 1978). In support of this, Goldman (1979) suggests that "a judge who is a member of a racial minority or a woman cannot help but bring to the bench a certain sensitivity—that may be particularly helpful in dealing with issues of racial and sexual discrimination" (p.494). Studies that applied focal concerns theory have found empirical support for this premise (Bontrager et al., 2013)

- H_5: White judges will sentence more severely than minority judges.

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[5] Harsher/more severe sentences mean that the defendants will have higher odds of imprisonment and/or receive longer prison sentences.

- H_6: Male judges will sentence more severely than female judges.

Moreover, studies have found that judges' professional and educational backgrounds also influence sentencing decisions (Johnson, 2006; Kerstholt & Jackson, 1998; Spohn, 1990). One of the prevalent findings in this scholarship is that judges who were former prosecutors often administer harsher sentences than those with other prior experience (Gibson, 1978; Steffensmeier & Hebert, 1999). Research also reveals that an array of other background characteristics also correlate with sentencing outcomes. For example, scholars have found that most judges attend law schools in the state in which they were born and often have higher class positions (middle to upper SES) (Glick & Vines, 1973; Spohn, 1990). These two characteristics have been found to produce mixed results in regard to their influence on sentencing outcomes; some judges with these characteristics allocated harsher sentences, while others were more lenient (Greenberg, 1977; Rachlinski, Johnson & Wistrich, 2014).

Furthermore, studies show similar variability regarding the political affiliation of who appointed the judge and how it impacts sentencing practices (Ashenfelter, Eisenberg & Schwab, 1995; Helms, & Jacobs, 2002). A rather salient finding is that Republican judges tend to sentence more severely than Democratic judges (Chambliss, 1994; Cohen & Yang, 2019). This stems from the fact that conservative judges often emphasize deterrence, retribution, and protection through incapacitation. This practice often leads to more use of incarceration dispositions because of increased penalties for street crime (Davey, 1998; Jacobs & Helms 1999; Sutton, 2000). In terms of appointed versus elected judges, research suggests that elected judges operate with their constituents and re-election in mind (Lim, 2008). With the current calls for criminal justice reform, it's likely that elected judges have pressure to give more lenient sentences. As it

pertains to case composition, research suggests that caseload size impacts sentencing decisions (Hogarth, 1971; Johnson, 2005). From these studies, the following hypotheses were developed:

- H_7: Judges who were former prosecutors will sentence more severely than judges who were not.

- H_8: Judges who attended Kansas' main in-state law school will sentence more severely than judges who did not.

- H_9: Republican judges will sentence more severely than judges of other parties.

- $H_{10:}$ Appointed judges will sentence more severely than elected judges.

- H_{11}: Judges with higher caseload pressure (in size, drug offense rate and serious offense rate) will sentence more severely than judges with lower caseload pressure.

Judicial District-Level Hypotheses

As mentioned above, previous studies have found that size of the court is one of the most crucial factors in understanding contextual variations in sentencing (Johnson, 2005, 2006; Ulmer & Johnson, 2004). Johnson (2006) contends, "the size of the jurisdiction is tied to variations in important organizational and cultural features of the court community, such as its autonomy from external controls, its public visibility regarding routine cases, and the diversity of different criminal cases sentenced" (p.270). Such influence is anticipated to lead to the administration of severe sentences in nonmetropolitan jurisdictions and more leniency in metropolitan jurisdictions. A similar assumption is made relative to the median household income of a judicial district. Thus, the following relationships are expected:

- H_{12}: Nonmetropolitan judicial districts will sentence more severely than metropolitan judicial districts.

- H_{13}: Judicial districts with a higher median household income will sentence more severely than judicial districts with a lower median household income.

Research on contextual effects of sentencing highlight the importance of examining a variety of courtroom and community characteristics (Britt, 2000; Myers & Talarico, 1987; Ulmer & Johnson, 2004). A common practice of past threat literature is to focus primarily on race; however, a growing trend is to include other minority groups, such as ethnic minorities and immigrants (Miethe & Moore, 1985; Peterson & Hagan, 1984; Ulmer & Kramer, 1996). Kansas is unique in that although the majority of its minority residents live in metropolitan areas, several of its nonmetropolitan industrial communities are comprised of predominately Hispanic immigrants and other immigrants from all over the world (U.S. Census, 2018). Findings from Feldmeyer et al. (2015) suggests that sentencing of minorities in these communities will likely be more punitive than in others. Based on this assumption, the following hypothesis was developed:

- H_{14}: Judicial districts with a larger minority (black and Hispanic) population will sentence more severely than judicial districts with a smaller minority population.

Conclusion

This chapter outlined how the present study applies focal concerns theory and the racial threat perspective to construct the above hypotheses. As previously identified, the key objective of this study is to examine sentencing disparity in Kansas at multiple levels. This objective is accomplished through assessing sentencing practices at the individual case- and judicial district-levels. A composite of various datasets from multiple sources is utilized to achieve this objective. Chapter 4 proceeds to a discussion of the data, measures, and analytic strategy that tested the aforementioned research questions and hypotheses.

Chapter 4 - Research Methodology

This chapter describes the methodology used to investigate the three research questions and test the hypotheses described above. The first part of the chapter discusses the various sources of data analyzed. The next section provides a discussion of the variables used in the multilevel approach implemented in this study. It includes a detailed explanation of the outcome measures at the individual case- and judicial district-levels. Next, the analytic strategy used to test the research hypotheses are described. The chapter concludes by reviewing the data steps of analysis.

Data

The research hypotheses in this study were tested using data that derived from several sources. Data sources included sentencing data from the Kansas Sentencing Commission (KSSC), judicial data from Kansas' Office of Judicial Administration (OJA), voter registration data from Kansas' State Secretary's Office, population data from the U.S. Census Bureau and information on judges from online biographies. Data from these sources were merged into one database for analysis. The final database analyzed included 33,635 felony cases sentenced by 132 judges from 30 judicial districts. This sample represented the majority of felony sentences reported to KSSC between FY 2016 and FY 2018. A number of cases were dropped from the study because they did not meet study criteria or for data quality issues (described in the section below).[6] The state of Kansas' fiscal year extends from July 1 through June 30; thus, the range of dates examined is from June 1, 2015, to July 30, 2018. The paragraphs below further describe the data analyzed at each level of the study.

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[6] The original dataset had 35,566 felony cases, sentenced by 218 judges from all 31 judicial districts.

This study utilized a two-level approach (see Figure 4.1). The first level of analysis was of sentencing outcomes of individual defendants' cases. The data used at this level primarily derived from KSSC's felony journal entry sentencing database. A journal entry is a document completed by court personnel and sent to KSSC following a felony conviction. Once received by the Commission, the journal entry is marked for tracking purposes and entered into a database. Comprised of over 700 variables, data fields in this file include demographic characteristics of the defendant, case/conviction information, and an attachment of the defendant's pre-sentence investigation (PSI) report. The PSI contains a list of the defendant's previous convictions, demographic information, and the recommended sentence determined by the PSI writer. The case-specific information from the journal entry includes the offense description, the sentence administered, the sentencing judge's name and county of conviction. These were all crucial components of the first level of analysis.

Additionally, background characteristics of judges were examined at this level. Although there were 218 judges identified in KSSC's original sentencing database, only 132 judges were used in the present study. The other judges were eliminated for not meeting appropriate criteria such as not having enough cases during the study period. Prior research indicates that only limited trends can be identified with a small number of cases (Johnson, 2006). Thus, judges that sentenced fewer than 15 cases during the three years examined were removed from analysis.[7] An additional condition was that each judge only administer sentences in one judicial district. If judges had sentenced defendants in multiple judicial districts, they were only represented in the judicial district in which they had the most sentences for this study; cases of that judge in the

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[7] Seventy-one judges were dropped from the study because they administered fewer than 15 felony sentences.

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additional jurisdiction(s) were removed.[8] Moreover, the majority of demographic and

background data of judges derived from information obtained from the Ballotpedia website.

Information obtained from this site included judges' educational institution, appointment or

election year, occupational history, gender, and race. Judges with missing or insufficient data

were removed to properly serve as a study measure.[9]

Judicial districts served as the level-two measure. The state of Kansas has 105 counties

that are organized into 31 judicial districts. Cases from the 17th judicial district, the state's

smallest district, were removed from the study during data cleaning because of insufficient

information on the one judge who handled all of the district's felony sentences.[10] Therefore,

sentences from 30 judicial districts were analyzed in this study. Judicial districts range in size

from one county to as many as seven (see Appendix C). For jurisdictions with multiple counties,

indicators were computed for the judicial district as a whole. For example, averages were

computed relative to their population and then configured into judicial districts. Thus, the

population of interest (e.g., black and Hispanic residents) for each county were summed, divided

by the total judicial district population and then multiplied by 100 to compute the percent

population for the district. Expanding these measures of social context out from counties to

judicial districts ensured a sufficient sample size of data in nonmetropolitan communities whose

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[8] Four-hundred and forty-four cases were removed because the sentencing judge had his or her primary sentencing
caseload in another judicial district.

[9] Thirteen judges were removed from the dataset for insufficient demographic, occupational, political or educational
information. Two judges were removed for issues identified in their caseloads during data cleaning.

[10] The 17th Judicial District had 139 cases, which represented 0.4 percent of cases in the original dataset. Key
background characteristics of the judge were missing and thus had to be removed to serve as a level two measure.

volume of cases for analysis would have been too low otherwise. Taken together, these

interrelated levels of data permitted an inclusive look at sentencing trends under the KSG.

Figure 4.1.

HLM Model Flowchart
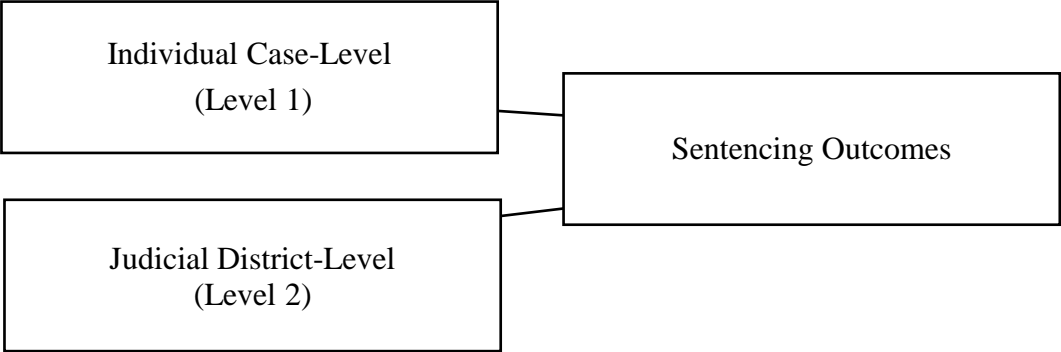
Empirical Measures:

Dependent Variables

Scholars have noted that when examining sentencing outcomes, judges have two options: use of an incarceration or non-incarceration disposition (Wheeler, Weisburd, & Bode, 1982). The present study follows this convention by utilizing two dependent variables to examine sentencing outcomes. The first is the decision to imprison, which is represented by a dichotomous variable called imprisonment. In the state of Kansas, defendants can either receive an imprisonment (in) or a non-imprisonment (out) sentence. Although several sentencing studies have used an incarceration variable that includes both state prison and county jail sentences, the structure of the KSG does not permit these two to be analyzed in the same category (Johnson, 2005, 2006). In Kansas, defendants sent to state prison are convicted of a crime sentenced in accordance with either the felony drug or nondrug sentencing grids (see Appendixes A and B). Those sentenced to county jail were convicted of "nongrid" felony offenses (K.S.A. 21-4701). Nongrid offenses have a sentencing structure outside of the guidelines and include crimes such as forgery, domestic battery, and animal cruelty. The maximum term of confinement for a nongrid felony offense is one year in a local county jail; nongrid felonies are ineligible for prison sentences. For the purposes of the current study, this variable is included in the non-prison or "out" sentences. Others in the out group include those placed on probation, sentenced to Senate Bill 123 Mandatory Drug Treatment (SB 123), or under DUI post-release supervision. For the in-out decision, the imprisonment variable was coded where 1 represented an in sentence and 0 represented out.

The second dependent variable was the natural logarithm of the minimum months of imprisonment. Labeled sentence length, this variable exclusively applied to those who receive

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state prison sentences. Sentences were capped at 600 months because it represents the maximum

sentence administered in Kansas, pursuant of the KSG.[11] A similar approach was done in

Johnson's (2006) work. Furthermore, as several scholars have noted, because the sentence-length

data is positively skewed, the error terms in linear regression tend to be curvilinear, which leads

to misestimated standard errors and potential estimation bias (Bushway & Piehl, 2001;

Kurlycheck & Johnson, 2004). Utilizing log transformations addresses this issue by normalizing

the skewed distributions.[12]

Independent Variables

Individual Case-Level Predictors

Collectively, individual case-level factors examined in this study include an array of both

legally prescribed and extra-legal factors. Legal factors include elements such as type of offense,

the defendant's criminal history score, pretrial status, and sentence range. Extra-legal factors

include the defendant's age, gender, and race/ethnicity. The paragraphs that follow further

explain how each variable was measured in this study.

Criminal history scores in Kansas range in severity from A to I, with I representing no

prior criminal history and A representing the most serious criminal history (three or more prior

person felonies). In the present study, the Criminal History Score variable was measured using

the following scale: N/A=0, I=1, H=2, G=3, F=4, E=5, D=6, C=7, B=8, and A=9.[13] Offense type

was measured by three separate dummy groups (violent offense, property offense, and Drug

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[11] This was done to correct for coding the scheme in which the data operator entered 999 months for defendants
receiving a life sentence. In the dataset analyzed, those sentences were calculated as 600 months.

[12] The original sentence length variable skewedness=3.97. Logging this variable reduced skewedness to .742.

[13] Defendants convicted of felonies that are not sentenced pursuit of KSG (nongrid and off-grid offenses) do not
receive a criminal history score, thus are represented in the N/A group and scored as 0.

Offense) in which defendants convicted of the offense named were coded as 1. Other offense served as the reference group and was left out of the analysis.[14]

Previous research has found that the outcomes of court rulings vary based on the defendant's type of counsel. Scholars maintain that defendants with retained counsel generally fair better than those with court-appointed counsel and those who are self-represented (Beck & Shumsky, 1997; Cunningham & Vigen, 1999; Joy & McMunigal, 2012). This reflects Kleck's (1981) notion of economic discrimination. In the present study, Court-Appointed Counsel was measured through a dichotomous variable by which 1 represented defendants who had a court-appointed attorney and 0 represented defendants with other types of counsel (retained, self, or waived counsel). Pretrial status refers to whether defendants were in custody, released on bond, or on "other" release prior to trial. Also reflecting notions of economic discrimination, most counties in Kansas utilize a cash-bond system. In the present study, pretrial status was measured through a dichotomous variable called In-Custody Pretrial that was scored as 1 if the defendant was in custody during pretrial and 0 if the defendant was released.

Trial proceedings in Kansas can be conducted in four different manners: bench, jury, plea, or nolo contendere plea. For the present study, plea was measured as a dichotomous variable in which pleas (pleas and nolo contendere pleas) were coded as 1 and trial proceedings (both bench and jury) were coded as 0.[15] The state of Kansas has forty-eight provisions, referred to as "special rules," in which a judge can impose a prison sentence for defendants who fall

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[14] Other offenses included crimes such as felony DUI, failure to register as a violent, drug or sex offender, fleeing and eluding law enforcement, obstruction of the legal process and possession of weapons.

[15] Nolo contendere plea is when the defendant does not admit to guilt, but rather chooses not to contest the charges. Wilford, Wells and Frazier (2020) highlight how defendants who accept nolo contendere pleas receive sentence reductions similar to regular pleas, thus this was coded the same as regular pleas in the present study.

within the presumptive probation range of the KSG. Examples of these rules include a person felony committed with a firearm (special rule #1), committing an offense while on felony bond (special rule #10) and a third felony drug possession conviction (special rule #26). Even if a special rule is applicable, the decision to impose a prison sentence still rests upon the judge. The variable special rule captured this occurrence and was coded as 1= if a special rule was found, and 0=no if it was not. Pursuant of KSG, judges have the ability to sentence a defendant to a mitigated (minimum sentence), standard (middle sentence), aggravated (maximum sentence), or a departure (judge sentences off of KSG) sentence. In the present study, this was measured as four separate dummy groups (mitigated, standard, aggravated, and departure), in which defendants who received the designated sentence were coded as 1. Standard sentence served as the reference group.

A number of individual case-level variables based on a defendant's demographics were also included. Defendant's gender was measured as a dichotomous variable named Female Defendant in which female defendants were coded as 1 and male defendants were coded as 0. Race and ethnicity were combined for analysis and measured by three dummy variables labeled White Defendant (non-Hispanic), Black Defendant (non-Hispanic), and Hispanic Defendant. Defendants of other races were left out of analysis because there were a number of judges and judicial districts that did not sentence any defendants in this group during the study period.[16] The inclusion of these defendants would have led to inaccurate results in the final multilevel models due to lack of representation across levels. Thus, the study included three dummy variables of White Defendant, Black Defendant and Hispanic Defendant, in which the race of the defendant

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[16] Six hundred and ninety-six cases in which the defendant was listed as "other race" were removed from the dataset for final analysis.

was scored as 1. White defendant served as the reference group and was left out of analysis. Furthermore, KSSC data included measures of a defendant's immigration status. In the present study, this was measured as a dichotomous variable named Non-U.S. Citizen Defendant; non-U.S. citizens were coded as 1 and U.S. citizens were coded as 0. Defendant's Age at sentencing was measured as a discrete, quantitative variable that ranged from 15 to 82 years old. Defendant's Age SQ (squared) was computed in analysis to reflect past research's assumption of a curvilinear relationship between sentences and age (Ryon et al., 2017; Steffensmeier, et al., 1995).

A primary interest of the current study was to examine inter-judge sentencing disparity. This was also measured at the individual case-level. To assess how a judge's race impacts sentencing outcomes, a dichotomous variable named *Nonwhite Judge* was used in which nonwhite judges were coded as 1 and white judges were coded as 0. The gender of judges were coded as a dichotomous variable called *Female Judge*, where female judges was coded as 1 and male judges were coded as 0. *Judge's Age* was measured as a discrete variable that ranged from 38 to 79 years of age. *Former Prosecutor Judge* examined prior prosecutorial experience of judges. This was measured as a dichotomous variable in which judges who were previously prosecutors were scored as 1 and 0 if they were not. In assessing judge's education, descriptive statistics revealed that 64 percent of all judges graduated from the same northeast Kansas law school.[17] To examine how this impacted sentencing outcomes, a variable labeled *Judge Attended KS Law Sch 1* was created in which those who graduated from this law school were scored as 1 and those who graduated from a different law school were scored as 0. Through a variable

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[17] Kansas has two in-state law schools. Following the university's Institutional Review Board's (IRB) agreement for this study, law schools' names were not identified. Rather, one particular law school was identified as *Law Schl 1*.

labeled *Republican Judge*, judges' party affiliations were measured, with Republican judges

were coded as 1 and judges of other party affiliations (Democrat, Unaffiliated, and Independent)

were coded as 0.[18] As outlined earlier, Kansas has two judicial selection processes, a judge is

appointed by the governor or is elected by popular vote. In the present study, this was measured

as a dichotomous variable named *Appointed Judge:* judges appointed by the governor were

coded as 1 and elected judges were coded as 0.

This study included several variables for judges' case composition. *Judge Caseload* was

measured as a continuous variable that represented the total number of cases a judge handled

during the study time period. Three other judge composition measures were analyzed. Those

were *Judge Departure Rate*, *Judge Drug Offense* Rate, and *Judge Serious Offense Rate SQRT*

(square root). Judge Departure rate referred to the percent of a judge's caseload in which they

departed from the sentencing guidelines. Judge drug offense rate referred to the percent of a

judge's caseload that was comprised of drug offenses. Judge serious offense rate referred to the

percent of a judge's caseload that were comprised of severity level 1 through 3 offenses or off-

grid crimes. Judge serious offense rate was square rooted to amend for skewness that was

identified during diagnostic testing.[19]

Judicial District-Level Predictors

The judicial district-level of analysis examined several social contextual variables. The

JD Median Household Income variable was measured as a continuous variable based on the 2010

U.S. Census Bureau's median household income estimates for each judicial district (U.S.

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[18] Elected judges' party affiliation was based on the party that they ran with during their election. Appointed judges' party affiliation was based on their voter registration records.

[19] The original *Judge Serious Offense* rate variable skewedness=3.87. Square rooting this variable reduced skewedness to 0.25.

Census, 2010). The JD Black Population was measured as a continuous variable that reflected

the percent of the judicial district's population that was black. The same method was used for JD

Hispanic Population, which was a continuous variable that measured the percent of the judicial

district's population that was Hispanic. The U.S. Census Bureau denotes Kansas communities as

"metropolitan areas" if the county has a population size of 60,000 residents or more (U.S.

Census, 2020).[20] The current study utilized this categorization with the variable labeled JD

Metro, where judicial districts with metropolitan counties were coded as 1 and judicial districts

without metropolitan counties were coded as 0. Figure 4.2 shows the predictors by level.

Figure 4.2.

Sentencing Factors Across Levels Flowchart

| Individual Case-Level | •Criminal History Score, Violent Offense, Property Offense, Drug Offense, Court-Appointed Counsel, In-Custody Pretrial, Plea Deal, Special Rule Applied, Mitigated Sentence, Aggravated Sentence, Departure Sentence, Female Defendant, Black Defendant, Hispanic Defendant, Non-U.S. Citizen Defendant, Defendant's Age at Sentencing, Defendant's Age at Sentencing (SQ), Female Judge, Judge's Age, Former Prosecutor Judge, Judge Attended KS Law Sch 1, Republican Judge, Appointed Judge, Judge Caseload, Judge Departure Rate, Judge Drug Offense Rate, Judge Serious Offense Rate (SQRT). |
| Judicial District-Level | •JD Median Household Income, JD Black Population, JD Hispanic Population, JD Metro. |

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[20] The 2010 U.S. Census classified Kansas City, Lawrence, Manhattan, St. Joseph, and Topeka as metropolitan areas.

Analytic Strategy

In the current study, Hierarchical Linear Modeling (HLM) was used as the main statistical approach for analysis. HLM was selected because it appropriately accounts for the nested nature of multilevel sentencing data. This modeling procedure examines relationships at any level in a single analysis, while taking into account the variability associated with each level of the hierarchy. As seen in this study, sentencing data that has a hierarchical structure often has individual subjects that can be arranged in groups which themselves have qualities that influence others. Utilizing specialized software, HLM fits models to outcome variables that generate a linear model with explanatory variables that account for variations at each level. The intercept and slopes at level one become variables at level two; therefore, the first-level factor controlled becomes an equation at the second level.

At the first stage of the present study, HLM unconditional models parceled out the amount of variation in sentencing outcomes that occurred. After the unconditional models, level 1 explanatory variables were incorporated to estimate the effects of individual sentencing characteristics. This included case-specific characteristics demographic information on both the defendant and the judge, as well as occupational and political characteristics of the judge. Level two estimated the influence judicial district variables had on sentencing outcomes. This model assessed if social contextual factors of the judicial districts conditioned individual case-level elements. With sentencing disparity based on race and ethnicity as a main focus of this study, additional models of were run to test interactions for black and Hispanic defendants.

This study had two dependent variables that reflect the separate but related sentencing decisions of judges. Those decisions were whether or not to imprison the defendant and, if the defendant was imprisoned, for how long. The first dependent variable of the current study was

the decision to imprison. A Hierarchical Generalized Modeling (HGLM) strategy was deployed

because of the dichotomous nature of the in/out imprisonment variable. Rather than using a

traditional single-level logistic regression model, HGLM permits the researcher to account for

the clustering of multiple outcomes within the corresponding data (Raudenbush & Bryk, 2002).

Thus, the individual case-level characteristics were used to explain the variation in the

relationship between the odds of receiving an imprisonment disposition. These level-one models

were estimated to determine the best model fit, appropriate predictor of variables, and to correct

for violations of assumptions before entering the data into the HLM software. Next, standard

HLM were used to assess the continuous dependent variable of logged sentence length. As

Johnson (2006) states, such an approach is appropriate because "HLM corrects standard errors

by accounting for the nested nature of sentencing data, adjusting statistical tests to reflect the

appropriate degrees of freedom, and provides the researcher with important tools for assessing

the random variant in individual sentences factors across judges" (Johnson, 2006, p. 277). The

general formula for the two-level logistic models for the imprisonment variable is as follows:

Equation 4.1.

$$(\gamma_{ij}) = \beta_{0j} + \beta_{1j}(X_{1ij} - \bar{X}_1) + \ldots + \beta_{kj}(X_{kij} - \bar{X}_k), \qquad \text{where} \quad (1)$$
$$\beta_{0j} = \gamma_{00} + \gamma_{01} + \ldots + \gamma_{0m}W_m + u_{0j}, \qquad\qquad\qquad (2)$$
$$\beta_{1j} = \gamma_{10} + \gamma_{11}W_1 + \ldots + \gamma_{1m}W_m + u_{1j}, \qquad\qquad\quad (3)$$
$$\beta_{kj} = \gamma_{k0} + \gamma_{k1}W_1 + \ldots + \gamma_{1m}W_m + u_{kj}, \qquad\qquad\quad (4)$$

The general formula of the two-level *sentence length* linear model is as follows:

$$(\gamma_{ij}) = \beta_{0j} + \beta_{1j}(X_{1ij} - \bar{X}_1) + \ldots + \beta_{kj}(X_{kij} - \bar{X}_k) + r_{ij}, \qquad \text{where} \quad (5)$$
$$\beta_{0j} = \gamma_{00} + \gamma_{01} + \ldots + \gamma_{0m}W_m + u_{0j}, \qquad\qquad\qquad (6)$$
$$\beta_{1j} = \gamma_{10} + \gamma_{11}W_1 + \ldots + \gamma_{1m}W_m + u_{1j}, \qquad\qquad\quad (7)$$
$$\beta_{kj} = \gamma_{k0} + \gamma_{k1}W_1 + \ldots + \gamma_{1m}W_m + u_{kj}, \qquad\qquad\quad (8)$$

Equation (1) refers to the individual case-level (level 1) analysis of examining the log

odds of imprisonment for each individual case i in judicial district j. β_{kj} represents the effect of

variable k on the dependent variable on each dependent variable for each judicial district j. (X_{1ij}

- $\bar{X}_1$) represents the value of the explanatory variable X for the defendant i in judicial district j,

centered on the grand mean of variable X. The grand mean centering allows researchers to

examine the effects of aggregate variables after accounting for compositional differences in cases

across judicial districts (Raudenbush & Bryk, 2002). Equations 2 through 4 specify the random

components and judicial district-level explanatory variables in the model. W_m represents the

values of the judicial district-level predictors and γ_m represents the effects of these predictors on

level 1 coefficient β_{kj} for variable k and judicial district j for these equations. Additionally, the

model includes error term u_{kj}, which represents the random component for the effects of variable

k for judicial district j. Equation 5 is a hierarchical linear model in which (γ_{ij}) represents sentence

length rather than the log odds of imprisonment. Thus, this exclusively applies to those who were

sentenced to prison. In this model, r_i serves as an additional error term and represents the random

error in sentence length for the defendant i in judicial district j. Equations 6 through 8 then mirror

those of equations 2 through 5.

Data Analysis

This section provides a detailed review of the steps taken to reach the final models that

produced the results presented in the following chapter. First, the researcher obtained felony

sentencing data from the Kansas Sentencing Commission on 35,566 cases sentenced by 218

judges in all 31 judicial districts. The dataset was then merged with data on individual case- and

judicial district-level factors from other sources. Next, a data cleaning process was conducted in

which recoding of variables and updating of missing values (when possible) was done. This was

followed by diagnostic testing of study variables in which levels of skewness were identified,

correlation matrixes were assessed, and checks for multicollinearity were conducted (see

Appendixes D and E for correlations matrixes).[21] Measures taken during this stage reduced the final dataset for analysis to 33,635 cases, sentenced by 132 judges from 30 judicial districts. In total, data on 1,935 cases, 86 judges and 1 judicial district were removed. Although this process strengthened analysis, it did reduce the study's population. The original database represented all felony cases in the state of Kansas during the study time period, but analysis was only conducted on those that met study criteria. Smaller judicial districts and judges who were on the bench for a limited portion of the study time period were impacted the most by the parsing criteria. Nonetheless, the study does still have strong generalizability capabilities as 95 percent of data in the original dataset was analyzed.

Descriptive statistics of study variables were analyzed following formation of the final dataset. After this, two logistic and OLS regression models were run; one of individual case-level factors and another of judicial district-level factors. Next, HLM unconditional models were run to parcel the amount of variation in sentencing outcomes. After observing statistically significant estimates in each unconditional model, the researcher proceeded to run the two-level HLM fixed effects models. In the HLM model, level 1 included individual case-level factors and level 2 included judicial district-level factors. This was followed by an interaction model that had all judicial district-level factors interact with black and Hispanic defendants. Results from these analyses are presented in the following chapter.

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[21] It was at this time that desired study variables, such as defendants in the "other" race category, judge's race, and measures for the judicial district's popular political party, were removed.

Chapter 5 - Results

The primary objective of this study was to examine sentencing disparity in Kansas at multiple levels. This approach is unique due to sentencing scholarship's heavy reliance on single level-analysis. To add this multilevel approach to the existing body of literature, the current study examined the influence that individual case- and judicial district-level factors had on sentencing outcomes. This chapter reviews the study's findings.

First, descriptive statistics are discussed. This is followed by an assessment of logistic regression and ordinary least squared (OLS) models of individual case- and judicial district-level variables. These regression models served as baseline analysis for the subsequent hierarchical linear models (HLM). The inclusion of the regression models is important because they can be viewed as a point of reference for comparison of what the field previously relied on. Next, this chapter reviews the results from a two-level HLM model. The chapter also includes analysis of the model, but with interactions of black and Hispanic defendants. This last approach is imperative in the assessment of sentencing disparity based on race and ethnicity. Results highlight which components of individual case- and judicial district-level factors influence sentencing outcomes

Descriptive Statistics

Dependent Variable Descriptives

Table 5.1 presents descriptive statistics for the study's dependent variables. Findings revealed that out of 33,635 cases sentenced, 24,796 resulted in an "out" sentence and 8,839 resulted in an "in" sentence. This indicated that just over a quarter (26.30 percent) of all felony convictions resulted in imprisonment sentences. For those sentenced to prison, the average sentence length was 51.46 months (unlogged). This was similar to the 52-month average reported in the U.S. Department of Justice, Bureau of Justice Statistics' State Court Processing Statistics collection (Reaves, 2013).

Table 5.1.
Dependent Variables Descriptives

Variables	N	μ	SD	Min	Max
Imprisonment Decision	33,635	0.26	0.44	0	1
Sentence Length (LN)	8,839	3.36	0.97	0	6.4

Individual Case-Level Descriptives

Table 5.2 presents descriptive statistics of the study's individual case-level independent variables. Examination of criminal history score revealed that I represented the highest percentage (18.20 percent) of defendant's scores.[22] With I being the least severe criminal history score, these findings suggest that a large number of defendants were entering the adult criminal justice system for the first time. Only 9.00 percent of defendants had an A criminal history, the most severe score. In terms of type of offenses, most defendants were convicted of drug offenses

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[22] The percent breakdown of criminal history scores is not in Table 5.2 but is as follows: NA=5.70%. I=18.20%, H=11.20%, G=10.80%, F=6.10%, E=12.60%, D=5.00%, C=12.80%, B=8.60% and A=9.00%.

(35.20 percent), followed by property offenses (24.50 percent), violent offenses (20.40 percent), and other offenses (19.90 percent). These findings indicate that more than half (59.70 percent) of all felony convictions were for drug and property offenses.

In assessing defendants' legal representation, most (82.60 percent) were represented by court-appointed counsel. This highlights the high proportion of indigent defendants convicted of felonies in Kansas. Moreover, assessment of defendant's pretrial status indicated that 47.69 percent of defendants were in custody during the pretrial process. In terms of trial status, most defendants (96.92 percent) accepted a plea deal. In review of the application of special sentencing rules, descriptive statistics revealed that 40.54 percent of defendants had a special rule applied to their sentence. It is important to note that special rules were not enforced in all cases in which they applied. In fact, most (61.07 percent) of the time when a special rule was found, it resulted in the defendant receiving an out sentence.[23] In assessing the sentences imposed, most defendants received the standard sentence (49.28 percent), followed by departure (19.73 percent), mitigated (14.16 percent) and aggravated (10.45 percent) sentences.[24] Defendant demographics were also analyzed at this level. Descriptive statistics revealed that 21.96 percent of defendants were female. As it pertains to race and ethnicity, 67.88 percent of the defendants were White (non-Hispanic), 20.53 percent were black (non-Hispanic), and 11.56 percent were Hispanic. In terms of citizenship, only 2.63 percent of defendants were non-U.S. citizens. Lastly, descriptive statistics revealed that the average age of a defendant at sentencing was 33.92 years old.

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[23] Not shown on Table 5.2, out of the 13,656 defendant's cases in which a special rule was found, 8,340 received an out sentence and 5,316 received an in sentence.

[24] Six point thirty eight percent of defendants were sentenced to a nongrid or off-grid offense, in which a sentence range is not imposed.

The individual case-level of analysis also included measures of sentencing judges. These variables assessed demographic, occupational, and political characteristics of judges. Descriptive statistics revealed that only 3.91 percent of judges were nonwhite. The race of the judge was dropped out of analysis in the regression and HLM models due to the low percentage of nonwhite judges and lack of distribution among jurisdictions. In terms of gender, descriptive statistics revealed that 17.02 percent of judges were female. Moreover, the average age of a judge was 62.32 years old. As for occupational experience, just over half (57.47 percent) of judges were former prosecutors. In assessing the law school that judges attended, 64.25 percent of judges went to Kansas' main law school. In terms of political affiliation, the majority (67.47 percent) of judges were Republican. As for governor-appointed versus elected judges, descriptive statistics displayed that 52.10 percent of judges were appointed and 47.90 percent were elected. This reflects the fact that 17 of Kansas' 31 judicial districts rely on the governor to appoint judges, while the remaining 14 rely on the public to elect judges. In terms of case composition statistics, the average caseload of judges for the three fiscal years examined was 393.14 cases. Lastly, on average, judges departed 19.74 percent of their caseload, 35.14 percent of their caseload was for drug offenses, and only 1.83 percent of their caseload was for serious offenses.

Table 5.2.
Individual Case-Level Descriptives

Variables	μ	SD	Min	Max
Criminal History Score	4.30	2.85	0.00	9.00
Violent Offense	0.20	0.40	0.00	1.00
Property Offense	0.25	0.43	0.00	1.00
Drug Offense	0.35	0.48	0.00	1.00
Other Offense	0.20	0.40	0.00	1.00
Court-Appointed Counsel	0.83	0.38	0.00	1.00
In-Custody Pretrial	0.48	0.50	0.00	1.00
Plea Deal	0.97	0.17	0.00	1.00
Special Rule Applied	0.41	0.49	0.00	1.00
Mitigated Sentence	0.14	0.35	0.00	1.00
Standard Sentence	0.49	0.50	0.00	1.00
Aggravated Sentence	0.10	0.31	0.00	1.00
Departure Sentence	0.20	0.40	0.00	1.00
Female Defendant	0.22	0.41	0.00	1.00
Black Defendant	0.21	0.40	0.00	1.00
White Defendant	0.68	0.47	0.00	1.00
Hispanic Defendant	0.12	0.32	0.00	1.00
Non-U.S. Citizen Defendant	0.03	0.16	0.00	1.00
Defendant's Age	33.92	10.89	15.00	83.00
Defendant's Age SQ	1,269.19	844.53	225.00	6,724.00
Nonwhite Judge	0.04	0.19	0.00	1.00
Female Judge	0.17	0.38	0.00	1.00
Judge's Age	62.32	7.52	38.00	79.00
Former Prosecutor Judge	0.57	0.49	0.00	1.00
Judge Attended KS Law Sch 1	0.64	0.48	0.00	1.00
Republican Judge	0.67	0.47	0.00	1.00
Appointed Judge	0.52	0.50	0.00	1.00
Judge Caseload	393.14	204.00	16.00	786.00
Judge Departure Rate	19.74	7.94	2.10	45.80
Judge Drug Offense Rate	35.14	13.14	4.50	65.50
Judge Serious Offense Rate SQRT	1.83	0.57	0.00	6.46

Judicial District-Level Descriptives

Table 5.3 presents descriptive statistics of the study's judicial district-level independent variables. These variables include socio-contextual measures to assess its influence on sentencing outcomes. Thirty of Kansas' thirty-one judicial districts were analyzed in this study. Data from the 17th judicial district were removed during data cleaning. The median household income for all the judicial districts was $45,678.02, with the highest in the 10th judicial district ($73,733.00) and the lowest in the 11th ($37,032.25). As for the racial composition, the average black population of all judicial districts was 4.03 percent, with the highest in the 29th judicial district (25.23 percent) and the lowest in the 12th (0.39 percent). In terms of the Hispanic composition, the average Hispanic population for all judicial districts was 10.34 percent, with the highest in the 26th judicial district (45.20 percent) and the lowest being in the 22nd (2.05 percent). Lastly, in utilizing the 2010 U.S. Census' determination of metropolitan areas, descriptive statistics revealed that just over half (27.00 percent) of Kansas' judicial districts were located in metropolitan communities.

Table 5.3.
Judicial District-Level Descriptives

Variables	μ	SD	Min	Max
JD Median Income	$45,678.02	7447.02	$37,032.25	$73,733.00
JD Black Population	4.03	4.98	0.39	25.23
JD Hispanic Population	10.34	11.29	2.05	45.20
JD Metro	0.27	0.45	0.00	1.00

Regression Models

Individual Case-Level Regressions

Table 5.4 presents the results from logistic and ordinary least squares (OLS) regression analyses that assessed the likelihood of imprisonment and sentence length for individual case-level measures. The first group of variables assessed the impact of legal factors on sentencing decisions. The results from the logistic regression model indicate that the defendant's criminal history score, being convicted of a violent offense, remaining in custody during pretrial, having a special sentencing rule applied to the sentence, and receiving a mitigated, aggravated or departure sentence were all positively associated with imprisonment. Defendants who had these factors applied to their cases were associated with an increased likelihood of imprisonment compared to their respective reference groups. Conversely, defendants convicted of a drug offense, those who had a court-appointed attorney, and defendants that accepted a plea deal were associated with a decreased likelihood of imprisonment compared to their counterparts. These defendants had reduced odds of imprisonment by 12, 34 and 83 percent, respectively. In terms of extra-legal factors, female defendants had a 46 percent reduced odds of imprisonment compared to their male counterparts and Hispanic defendants had a 16 percent increased odds of imprisonment compared to non-Hispanic defendants. Additionally, non-U.S. citizen defendants had a 62 percent increased odds of imprisonment compared to U.S. citizens. The relationship between a defendant's race and imprisonment was found to be non-statistically significant, along with age of the defendant at sentencing.

In terms of individual case-level factors of judges, demographic measures of judges revealed that cases with female judges were associated with a reduced odds of imprisonment by 9 percent. Judge's age did not produce any statistically significant estimates. It is important to

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remember that the race of judges was left out of analysis because of a lack of nonwhite judges and variability within the data.[25] In terms of occupational elements, the results indicated that cases handled by judges who were former prosecutors were associated with a 10 percent increased odds of imprisonment than those who were not previously prosecutors. As for political elements, both Republican judges and judges who were appointed by the governor were found to be associated with a higher likelihood of imprisonment. The findings indicated that being sentenced by a Republican judge was associated with an increased odds of imprisonment by 11 percent and being sentenced by a judge who was appointed by the governor was associated with an increased odds of imprisonment by 49 percent. In terms of case composition components, the findings indicated that a one-unit increase in a judge's drug offense rate and serious offense rate were associated with increased odds of imprisonment. Conversely, a one-unit increase in a judge's departure rate was associated with a decreased odds of imprisonment by 2 percent. Judge's caseload size had no effect on the decision to imprison.

OLS regression assessed the relationship between individual case-level factors and sentence length for defendants sentenced to prison. In terms of legal factors, results revealed that being convicted of a violent or drug offense, being in custody during pretrial, or receiving an aggravated sentence were associated with increases in sentence lengths. Defendant's criminal history score, being convicted of a property offense, having court-appointed counsel, accepting a plea deal, having a special rule applied to the case, or receiving a mitigated or departure sentence were associated with decreases in sentence length. In terms of extra-legal factors, results displayed that while black defendants were associated with an increase in sentence length, female and non-U.S. citizen defendants were associated with a decrease. As for judge measures,

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[25] Only 3.9 percent of judges were nonwhite and were highly concentrated in larger judicial districts.

findings from the OLS regression model only produced statistically significant results for political party affiliation and case composition variables. The results indicated that having a Republican judge and unit increases in judges' departure rates and serious offense rates were associated with increases in sentence length. Conversely, unit increases in judges' caseload were associated with decreases in sentence length.

Table 5.4.
Individual Case-Level Regression Models

	Imprisonment				Sentence Length (LN)			
	b	S.E.	Odds	***	b	S.E.	Beta	***
Individual Case-Level Factors								
Criminal History Score	0.27	0.01	1.31	***	-0.01	0.003	-0.03	**
Violent Offense	1.16	0.05	3.19	***	1.02	0.02	0.50	***
Property Offense	-0.07	0.05	0.93		-0.12	0.02	-0.05	***
Drug Offense	-0.13	0.05	0.88	**	0.62	0.03	0.27	***
Court-Appointed Counsel	-0.42	0.05	0.66	***	-0.12	0.02	-0.04	***
In-Custody Pretrial	2.14	0.04	8.50	***	0.18	0.02	0.06	***
Plea Deal	-1.75	0.09	0.17	***	-0.80	0.03	-0.20	***
Special Rule Applied	0.81	0.03	2.24	***	-0.22	0.02	-0.11	***
Mitigated Sentence	1.10	0.05	3.00	***	-0.13	0.02	-0.05	***
Aggravated Sentence	0.30	0.05	1.35	***	0.14	0.03	0.05	***
Departure Sentence	0.51	0.04	1.67	***	-0.38	0.02	-0.18	***
Female Defendant	-0.45	0.05	0.64	***	-0.12	0.03	-0.04	***
Black Defendant	0.00	0.04	1.00		0.05	0.02	0.02	*
Hispanic Defendant	0.15	0.06	1.16	**	-0.02	0.03	-0.01	
Non-U.S. Citizen Defendant	0.48	0.11	1.62	***	-0.17	0.05	-0.03	**
Defendant's Age at Sentencing	0.01	0.01	1.01		0.003	0.004	0.03	
Defendant's Age at Sentencing SQ	0.00	0.00	1.00		0.00001	0.00	0.01	
Female Judges	-0.10	0.05	0.91	*	-0.003	0.02	-0.001	
Judge Age	0.00	0.00	1.00		-0.0003	0.001	-0.002	
Former Prosecutor Judge	0.10	0.03	1.10	**	-0.01	0.02	-0.003	
Judge Attended KS Law Sch 1	-0.08	0.04	0.93	*	0.003	0.02	0.002	
Republican Judge	0.11	0.04	1.11	**	0.05	0.02	0.03	**
Appointed Judge	0.40	0.04	1.49	***	0.02	0.02	0.01	
Judge Caseload	-0.0002	0.00	1.00	**	-0.0001	0.00	-0.02	*
Judge Departure Rate	-0.02	0.00	0.98	***	0.003	0.001	0.03	**
Judge Drug Offense Rate	0.01	0.00	1.01	***	-0.001	0.001	-0.01	
Judge Serious Offense Rate SQRT	0.40	0.04	1.50	***	0.11	0.02	0.06	***
Constant	-3.99	0.27	0.02	***	3.55	0.13		***

Chi-Square	13,268.23***		
-2 Log Likelihood	25,476.38		
Cox & Snell R Square	0.33	F Statistic for the Model	269.39***
Nagelkerke R Square	0.48	Adjusted R Square	0.45
Observations	33,635	Observations	8,838

*** $p<0.001$, ** $p<0.01$, * $p<0.05$

Judicial District-Level Regressions

Table 5.5 presents judicial district-level regressions that examined the relationship between social contextual variables among 30 of Kansas' 31 judicial districts and sentencing outcomes. The findings from the logistic regression model indicated that two of the four judicial district-level measures were statistically significant. Median income was statistically significant, but the odds ratio of 1.00 indicated no effect. The other variable that attained statistical significance was the measure for metropolitan status. The results indicated that defendants convicted in metropolitan districts had an increased odds of imprisonment by 52 percent compared to those in nonmetropolitan districts. A plethora of research has found that urban/metropolitan areas are associated with higher levels of crime and stiff criminal penalties (Hipp & Kane, 2017; Shaw & McKay, 1969; Sampson & Raudenbush, 1999; Sampson, Raudenbush & Felton, 1997). Such trends are often linked to a high concentration of minorities in these areas (Hernandez, Velez & Lyons, 2018; Krivo, Peterson & Kuhl, 2009; Sampson, 1987; Shihadeh, 2009). The logistic regression results did not support this claim as Black and Hispanic population compositions were not statistically significant in this model. As for sentence length, findings from the OLS model displayed statistical significance only in judicial districts median income. Findings indicated that unit increases in a judicial districts' household median income resulted in decreases in sentence length. None of the other variables (black population, Hispanic population, and metropolitan status) were statistically significant.

Table 5.5.
Judicial District-Level Regression Models

	Imprisonment				Sentence Length (LN)			
	b	S.E.	Odds	***	b	S.E.	Beta	***
Judicial District-Level Factors								
JD Median Income	-0.00001	0.00	1.00	***	-0.00001	0.00	-0.11	***
JD Black Population	0.001	0.003	1.00		0.002	0.002	0.01	
JD Hispanic Population	0.002	0.001	1.00		0.00	0.001	0.01	
JD Metro	0.42	0.04	1.52	***	0.04	0.032	0.02	
Constant	-1.01	0.08	0.37	***	3.84	0.07		***

Chi-Square	243.06***			
-2 Log Likelihood	38,569.79			
Cox & Snell R Square	0.01	F Statistic for the Model		26.97***
Nagelkerke R Square	0.01	Adjusted R Square		0.01
Observations	33,686	Observations		8,856

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

Hierarchical Linear Modeling Estimates

Unconditional Models

Although the results from the regression models yielded interesting findings, the use of a more robust approach was needed. Since regression analysis assumes uncorrelated error terms and is unable to model heterogenetic regression coefficients across aggregate units, it risks misestimation of both level-two and level-one factors (Bryk and Raudenbush, 1992; Johnson, 2006). Hierarchical linear modeling (HLM) is able to address this limitation. This was accomplished in the present study through nesting individual case-level factors by judicial districts. The first step in assessing HLM estimates was to examine unconditional models of sentencing outcomes that included only the intercepts and dependent variables. Assessment of these estimates permitted determination of which proportion of the variance exists between aggregate units, as well as established baselines for evaluations of subsequent models. Results from the unconditional models of each dependent variable are displayed in Table 5.6. Findings revealed that the variance component was significant for each model, therefore indicating that there was sufficient fluctuation in outcomes to justify modeling with group-level predictions.

Moreover, since sentence length was a continuous outcome measure, it was appropriate to calculate the intraclass correlation coefficients. Intraclass correlations represent the proportion of variance in the outcome that is within versus between level 2 units (Byrk & Raudenbush, 1992). The intraclass correlation of 0.02 indicated that approximately 2 percent of the total variance in sentence length was between judicial districts rather than within. It was calculated by the following formula: $p=t_{00}/(t_{00}+\sigma^2)$. The remainder of this chapter focuses on results from the fixed effects conditional HLM models with second-level analysis of judicial district-level factors.

Table 5.6.
Unconditional HLM Models for Imprisonment and Sentence Length

Imprisonment

Fixed Effects	b	S.E	t-ratio	d.f.	***
Intercept	-1.15	0.07	-17.19	29	***

Random Effects	SD	Variance	χ2	d.f.	***
Intercept	0.36	0.13	686.59	29	***

Sentence Length (LN)

Fixed Effects	b	S.E.	t-ratio	d.f.	***
Intercept	3.37	0.03	110.17	29	***

Random Effects	SD	Variance	χ2	d.f.	***
Level 2	0.15	0.02	204.23	29	***
Level 1	0.96	0.93			

Intraclass Correlation	0.02

HLM Models

Table 5.7 provides results of the fixed effects of the HLM model. Individual case-level factors (level 1) were assessed to determine influences on imprisonment and sentence length when nested by judicial districts. Assessment of HGLM analysis produced fixed effects of the log odds of imprisonment. In assessing statistically significant legal factors, the results indicated that a defendant's criminal history score, being convicted of a violent offense, remaining in custody during pretrial, having a special rule applied to the case, being convicted of a mitigated or aggravated sentence, and receiving a departure were all associated with increased odds of imprisonment. Only defendants convicted of drug offenses, those with court-appointed counsel, and defendants who accepted a plea deal were negatively associated with imprisonment; results indicated that defendants with these factors attributed to their case had reduced odds of imprisonment by 12, 33 and 83 percent, respectively. In terms of extra-legal factors, while Hispanic and non-U.S. citizen defendants were positively associated with imprisonment, being a female defendant was negatively associated. Hispanic and non-U.S. citizen defendants were associated with an increased odds of imprisonment by 16 and 51 percent, respectively. Female defendants were associated with reduced odds of imprisonment by 46 percent compared to male defendants. All the other individual case-level defendant factors (being convicted of a property offense, black defendants, and defendant's age at sentencing) were non-statistically significant in this model.

As it pertains to individual case-level judge factors, four out of the ten variables assessed produced statistically significant estimates. Appointed judges and judges with higher drug and serious offense rates were positively associated with imprisonment. Defendants with appointed judges were associated with a 60 percent increased odds of imprisonment. A one-unit increase in

a judge's drug offense rate was associated with a 1 percent increased odds of imprisonment. Also, a one-unit increase in a judge's serious offense rate was associated with a 39 percent increased odds of imprisonment. Conversely, cases in which the sentencing judge attended Kansas' main law school were associated with a decrease in odds of imprisonment by 11 percent. All other individual case-level judge factors (gender, age, prior prosecutorial experience, political party affiliation, caseload size, and departure rate) were non-statistically significant.

Regarding sentence length, being convicted of a violent or drug offense, remaining in custody during pretrial, and receiving an aggravated sentence were all positively associated with sentence length; thus, just one of these factors applied to a defendant's case meant an increase in sentence length. Moreover, the defendant's criminal history score, being convicted of a property offense, having court-appointed counsel, accepting a plea deal, having a special rule applied to the sentence, and receiving a mitigated or departure sentence were all associated with decreases in sentence length. Three extra-legal individual case-level factors of defendants displayed statistical significance. Black defendants were associated with increases in sentence length and female non-U.S. citizen defendants were associated with decreases. In assessing sentence length for individual case-level judge factors, only one of the variables examined produced statistically significant estimates. The findings indicated that a unit increase in a judge's serious offense rate was positively associated with sentence length, thus resulting in defendants receiving longer sentences. All other judge factors (gender, age, prior prosecutorial experience, law school attended, political party affiliation, being appointed by the governor, judge caseload, departure rate, and drug offense rate) were non-statistically significant.

Limited research has produced literature on the contextual influences that impact sentencing decisions. The majority of these studies focused on county-level factors (Helms &

Jacobs, Johnson, 2005; Johnson, 2006; Johnson et al., 2008; Ulmer & Johnson, 2004). The present study is unique in that it analyzed contextual influence at the judicial district-level. It is important to note that although a wide range of judicial district-level factors were originally tested, several were dropped due to the prevalence of multicollinearity.[26] Thus, a subset of four judicial district level measures were included, none of which produced statistically significant estimates. Nonetheless, as identified below, a few race and ethnicity interactions with judicial district-level measures resulted in statistical significance.

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[26] Measures for the percent of the judicial district that registered as Republican in 2016, percent of the judicial district judges' that were Republican, the judicial district appointment procedure (elected v. appointed) and judicial district case composition statistics of trial rate, drug offense rate and serious offense rate were all tested as level two measures but rejected because of multicollinearity.

Table 5.7.
HLM Fixed Effects Models of Imprisonment and Sentence Length

	Imprisonment				Sentence Length (LN)		
	b	S.E.	Odds	***	b	S.E.	***
Individual Case-Level Factors							
Intercept	-1.52	0.09		***			***
Criminal History Score	0.27	0.01	1.31	***	-0.01	0.003	**
Violent Offense	1.18	0.05	3.25	***	1.02	0.02	***
Property Offense	-0.07	0.05	0.93		-0.11	0.02	***
Drug Offense	-0.13	0.05	0.88	**	0.63	0.02	***
Court-Appointed Counsel	-0.40	0.05	0.67	***	-0.13	0.02	***
In-Custody Pretrial	2.19	0.04	8.93	***	0.18	0.02	***
Plea Deal	-1.75	0.09	0.17	***	-0.80	0.03	***
Special Rule Applied	0.81	0.03	2.24	***	-0.21	0.02	***
Mitigated Sentence	1.17	0.05	3.21	***	-0.13	0.02	***
Aggravated Sentence	0.35	0.05	1.43	***	0.14	0.03	***
Departure Sentence	0.53	0.04	1.70	***	-0.38	0.02	***
Female Defendant	-0.44	0.05	0.64	***	-0.12	0.03	***
Black Defendant	0.01	0.04	1.01		0.06	0.02	**
Hispanic Defendant	0.15	0.06	1.16	*	0.002	0.03	
Non-U.S. Citizen Defendant	0.41	0.11	1.51	***	-0.16	0.05	**
Defendant's Age at Sentencing	0.02	0.01	1.02		0.003	0.004	
Defendant's Age at Sentencing SQ	-0.0001	0.0001	1.00		0.000004	0.0001	
Female Judges	0.01	0.05	1.01		-0.01	0.02	
Judge Age	0.002	0.003	1.00		-0.0001	0.001	
Former Prosecutor Judge	0.03	0.04	1.03		0.003	0.02	
Judge Attended KS Law Sch 1	-0.12	0.04	0.89	**	-0.01	0.02	
Republican Judge	-0.01	0.05	0.99		0.03	0.02	
Appointed Judge	0.47	0.19	1.60	*	-0.0002	0.04	
Judge Caseload	0.0002	0.0002	1.00		-0.00002	0.0001	
Judge Departure Rate	-0.003	0.004	1.00		0.005	0.002	

Judge Drug Offense Rate	0.01	0.003	1.01	**	-0.002	0.001	
Judge Serious Offense Rate SQRT	0.33	0.04	1.39	***	0.12	0.02	***
Judicial District-Level Factors							
JD Median Income	-0.00001	0.00002	1.00		-0.000002	0.000003	
JD Black Population	-0.02	0.02	0.98		-0.01	0.005	
JD Hispanic Population	0.0005	0.01	1.00		-0.002	0.002	
JD Metro	0.24	0.30	1.27		-0.03	0.06	
Random Effect							
Judicial District-Level Intercept	0.22***				0.01***		
χ^2	731.37				71.65		
Individual Case-Level N	33,635				8,839		
Judicial District-Level N	30				30		

*** $p<0.001$, ** $p<0.01$, * $p<0.05$

HLM Race and Ethnicity Interaction Models

An interaction model that assessed cross-level interactions among Hispanic and black defendants by judicial district-level factors was examined. Table 5.8 presents those results. In terms of the decision to imprison, black defendants sentenced in judicial districts with higher black populations displayed evidence of a positive association. The findings from this interaction suggest that unit increases in a judicial districts black population was associated with an increased likelihood of receiving an imprisonment sentence for black defendants. No other black or Hispanic defendant and judicial district interactions produced statistically significant results for the decision to imprison. As for sentence length, again black defendants sentenced in judicial districts with higher black populations displayed a positive association. Thus, a unit increase in a judicial district's black population was associated with an increase in sentence length for black defendants. As for Hispanic defendant interactions, the results indicated that the median household income of a judicial district was negatively associated with sentence length. This suggests that a unit increase in median household income of judicial districts was linked to a decrease in sentence length for Hispanic defendants. Statistical significance among these variables suggest that sentencing outcomes vary across judicial districts. No other interactions for black or Hispanic defendants produced statistically significant results.

Table 5.8.
HLM Fixed Effects Interaction Models of Imprisonment and Sentence Length

	Imprisonment				Sentence Length (LN)		
	b	SE	Odds	***	b	SE	***
Black Defendant Interactions							
Intercept	-0.04	0.06			0.002	0.03	
Black Defendant X JD Median Income	0.00001	0.000	0.859		0.000003	0.000002	
Black Defendant X JD Black Population	0.03	0.01	2.753	**	0.01	0.004	*
Black Defendant X JD Hispanic Population	0.003	0.01	0.5		0.004	0.003	
Black Defendant X JD Metro	-0.15	0.14	-1.05		-0.01	0.06	
Hispanic Defendant Interactions							
Intercept	0.08	0.08	1.064		0.00004	0.04	
Hispanic Defendant X JD Median Income	0.00002	0.00001	1.877		-0.00001	0.000004	*
Hispanic Defendant X JD Black Population	0.01	0.01	1.179		-0.003	0.01	
Hispanic Defendant X JD Hispanic Population	-0.004	0.01	-0.769		0.003	0.003	
Hispanic Defendant X JD Metro	-0.03	0.22	-0.121		0.09	0.09	
Random Effect							
Judicial District-Level Intercept	0.22***				0.01		
χ2	724.29				78.16		
Individual Case-Level N	33,635				8,839		
Judicial District-Level N	30				30		

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

Conclusion

This chapter included a review of the study's descriptive statistics, regression models, HLM unconditional models, and HLM fixed effects models. The primary focus was on results produced from the HLM models. Results from the HLM interaction models helped place special attention on sentencing outcomes of both black and Hispanic defendants. Although several of the findings supported study predictions, many contradicted expectations. The next chapter will further discuss these findings in conjunction with the study's hypotheses.

Chapter 6 - Discussion

Although substantial scholarship has been produced on sentencing disparity, limited research has examined how court and social contextual factors impact sentencing outcomes. The majority of studies that have been done in this area deployed a single-level methodological approach (Albonetti, 1991; Steffensmeier & Demuth, 2000: Steffensmeier, et al., 1998; Ulmer & Kramer, 1998). The present study attempted to amend this limitation through use of a multilevel framework that nested individual case-level factors by judicial district characteristics. This chapter connects results produced through use of this approach to the study's research hypotheses and underlying theoretical perspectives. Additionally, a review of how estimates generated from traditional regression models compare to those produced by HLM is presented. This paper will conclude by identifying policy recommendations, limitations of the study, and discussing ideas for future research.

Summary of Findings

Fourteen research hypotheses were developed in Chapter 3 that identified anticipated results. This section will review whether findings from the HLM models support these hypotheses. Table 6.1 displays these findings. The section that follows will connect study results to the underlying theoretical perspectives.

Individual case-level defendant factors in the HLM model were used to determine empirical support for the first group of hypotheses. H_1 predicted that legal factors would be the most important influencers of sentencing outcomes. "Important" in this context meant that these variables would be statistically significant. The results from the HLM model displayed full support of this assumption. Defendant's criminal history score, type of offense, type of legal counsel, pretrial release status, acceptance of a plea deal and sentence range were statistically

significant in the HLM model. The only legal factor that was not statistically significant was property offense for the decision to imprison. The other three hypotheses of individual case-level defendant's cases assessed extra-legal factors' influence on sentencing outcomes. H_2 predicted that minority (both black and Hispanic) defendants would receive harsher sentences than nonminority defendants. The findings partially supported this claim. It was found that Hispanic defendants were associated with higher odds of imprisonment and black defendants were associated with longer sentences. This served as partial support because the imprisonment decision for black defendants and sentence length for Hispanic defendants was non-significant.

H_3 hypothesized that male defendants would receive harsher sentences than female defendants. This hypothesis was fully supported as findings indicated that female defendants had lower odds of imprisonment and received shorter sentences than their male counterparts in the HLM model. These findings replicate those of several earlier studies that assessed sentencing outcomes on the basis of gender (Daly, 1994; Fernando Rodriquez, et al., 2006; Steffensmeier, 1980). The only hypotheses based on an extra-legal factor at the individual case-level that was not supported in the study's results was H_4, which proposed that a non-linear relationship exists between age and sentence. To test this, defendant's age at sentencing and defendant's age at sentencing squared were included in the model. This assumption was based on prior research suggesting that the effect of age on incarceration was curvilinear (Demuth & Steffensmeier, 2004; Ryon et al., 2017; Steffensmeier et al., 1995). The findings indicated that this was not the case in the present study; the age variables did not reach statistical significance in the final HLM model.[27]

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[27] Alternative models were run to test a linear relationship with age. The researcher sided with Steffensmeier et al. (1995) test of a curvilinear relationship because it matched both theoretical and practical expectations.

Table 6.1.
Study Hypotheses Findings

Number	Individual Case-Level Hypotheses	Full Support	Partial Support	No Support
H_1	Legal factors (e.g., criminal history score, pretrial status and type of offense) will be the most important elements for both the incarceration and sentence length decision.	X		
H_2	Minority (racial/ethnic) defendants will receive harsher sentences than non-minority defendants.		X	
H_3	Male defendants will receive harsher sentences than female defendants.	X		
H_4	A non-linear relationship exist between age and sentence.			X
H_5	White judges will sentence more severely than minority judges.			N.A.[28]
H_6	Male judges will sentence more severely than female judges			X
H_7	Judges who were former prosecutors will sentence more severely than judges who were not.			X
H_8	Judges who attended Kansas' main in-state law school will sentence more severely than judges who did not.			X
H_9	Republican judges will sentence more severely than judges of other parties.			X
H_{10}	Appointed judges will sentence more severely than elected judges.		X	
H_{11}	Judges with higher caseload pressure (in size, drug offense rate and serious offense rate) will sentence more severely than judges with lower caseload pressure.		X	
Judicial District-Level Hypotheses				
H_{12}	Nonmetropolitan judicial districts will sentence more severely than metropolitan judicial districts.			X
H_{13}	Judicial districts with a higher median household income will sentence more severely than judicial districts with a lower median household income.			X
H_{14}	Judicial districts with a larger minority (black and Hispanic) population will sentence more severely than judicial districts with a smaller minority population.		X	

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[28] H_5, N.A. is marked under the no support column to indicate that it was not analyzed. This hypothesis was not analyzed because only 4 percent of judges were non-white in this study.

Six hypotheses tested individual case-level factors of judges. H_5 predicted that white judges would sentence more severely than minority judges. Although a main emphasis of this study was to examine inter-judge sentencing disparity, the data collected did not permit such analysis on the basis of race. Only 3.9 percent of the judges were nonwhite and their concentration in large metropolitan communities resulted in high levels of multicollinearity. Thus, the race of the judge variable was removed from analysis and no support for this claim was obtained. H_6 hypothesized that male judges would sentence more severely than female judges. No support of this hypothesis was obtained because the HLM model did not produce any statistically significant estimates of this measure. H_7 predicted that judges who were former prosecutors would sentence more severely than judges who were not. Again, this prediction was not supported in findings as the measure did not produce any statistically significant estimates. H_8 predicted that judges who attended Kansas' in-state law school 1 would sentence more severely than judges who did not. Finding evidence that the contrary was true, the results indicated that cases that had a judge who attended Kansas' law school 1 had lower odds of imprisonment compared to cases that had judges who attended a different law school. This measure for sentence length did not provide any statistically significant estimates.

Prior research suggests that Republican judges tend to sentence more conservatively, resulting in harsher sentences for defendants (Chambliss, 1994). This was tested in H_9, which predicted that Republican judges would sentence more severely than judges of other political parties. This was not supported as the HLM model did not produce any statistically significant estimates for this measure. H_{10} hypothesized that appointed judges would sentence more severely than elected judges. The findings provided partial support for this hypothesis. The results indicated that cases sentenced by appointed judges were associated with higher odds of

imprisonment compared to cases sentenced by elected judges. The measure for sentence length was not statistically significant. The findings for the decision to imprison contradict Gordon and Huber's (2007) study results in their examination of Kansas' judicial election process. Their results found that judicial districts with elected judges tend to sentence more severely than those with appointed judges. These contradictory results may be because Gordon and Huber's (2005) study was based on data from 1997 to 2003; the current study is based on data from 2016 to 2018. Kansas has had two Democratic governors and two Republican governors (one who served two terms) in the years between studies (Ballotpedia, 2020). Additionally, Kansas' sentencing structure is different, as the state adopted a new drug sentencing guideline in 2012. The final individual case-level hypotheses, H_{11}, predicted that judges with higher caseload pressure (in size, drug offense rate, and serious offense rate) would sentence more severely than judges with lower caseload pressure. The findings produced partial support for this hypothesis. A judge's drug offense and serious offense rate was found to be associated with increased odds of imprisonment and a judge's serious offense rate was found to be associated with longer sentences. This was only partial support because a judge's caseload size and drug offense rate did not produce any statistically significant estimates.

The remaining three hypotheses were based on judicial district-level factors. Empirical support was assessed through the judicial district-level (level 2) of both the HLM and interaction models. H_{12} predicted that nonmetropolitan judicial districts would sentence more severely than metropolitan judicial districts. No empirical support was obtained because this measure failed to produce any statistically significant HLM estimates. H_{13} predicted that judicial districts with a higher median household income would sentence more severely than judicial districts with a lower median household income. The opposite was found to be true in the interaction model for

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Hispanic defendants. The results revealed that Hispanic defendants convicted in judicial districts with a higher median household income received lower sentence lengths than their white counterparts. This will be further explored in the next section. No other HLM models provided statistical significance for this measure. Thus, no support for this hypothesis was obtained. The only judicial district-level hypotheses that was partially supported was H_{14}, which hypothesized that judicial districts with a larger minority (black and Hispanic) population would sentence more severely than judicial districts with a smaller minority population. The results from the interaction model showed that black defendants had higher odds of receiving an imprisonment sentence and were administered longer sentences in judicial districts with higher black populations. As is discussed in the next section, this provides empirical support for Blalock's (1967) racial threat perspective. This was partial support because measures of sentencing outcomes for Hispanic defendants and black and Hispanic population size did not produce any statistically significant estimates.

Theoretical Underpinning Implications

Chapter 3 identified the underlying theoretical approaches for this study. Focal concerns theory was proposed to apply to individual case-level factors. The racial threat perspective was proposed to apply to judicial district-level factors. This section examines the application of these theories to study results.

Focal Concerns Theory

Focal concerns theory assumes that sentencing outcomes are the product of a complex decision-making process in which judges must consider several factors simultaneously at the time of sentencing (Hogarth, 1971). Judges must assess factors such as the defendant's prior record, the type of offense, and level of harm done to the victim. This premise was supported in

many of the study's findings. As identified above, the majority of the legal factors at the individual case-level in HLM models produced statistically significant estimates. Factors such as type of offense and criminal history score were commonly found to influence sentencing outcomes. Although pretrial detention is a legal factor, it's not mandated by the sentencing guidelines. Instead, this decision is made by the judge during arraignment, at which time factors such as the seriousness of the offense, the defendant's flight risk and potential harm to the community are considered (Terranova, Ward, Slepicka & Azari, 2020). These mimic focal concerns concepts of blameworthiness, protection to the community, and application of practical restraints. In linking this process to sentencing disparity, a plethora of past research has found that black and Hispanic defendants are more likely to be detained before trial and receive higher bail amounts than white defendants charged with similar offenses (Demuth & Steffensmeier, 2004; Patterson & Lynch 1991; Schlesinger, 2005). This, then, impacts sentencing outcomes in that minority defendants in custody during pretrial are more likely to accept a plea deal and/or appear more blameworthy if they go to trial (Demuth, 2003; Freiburger, Marcum & Pierce, 2010; Schlesinger, 2005). Future Kansas-related research should assess whether this finding is a factor of a functional pretrial process of incarcerating the most serious offenders or a product of underlying racial/ethnic biases.

Another salient finding was that women were less likely to be imprisoned and received shorter sentence lengths than their male counterparts. Displaying similar results, Steffensmeier, Kramer, and Streifel's (1993) paramount study discovered that women had reduced odds of imprisonment and received shorter sentences than men because they were perceived as being less blameworthy and because of practicality concerns such as being the sole providers of dependent children. Research suggests that leniency granted to female defendants is based on chivalrous

judges who feel the need to "protect women" (Bishop & Frazier, 1995; Leiber & Mack, 2003; Morash, 2006). Additionally, the focal concerns perspective proposes that female offenders are perceived as less dangerous, less threatening, less culpable, and as having a lower likelihood of recidivism compared to their male counterparts. As a result, they receive less severe sentences (Guevara, Herz, & Spohn, 2006; Mallicoat, 2007). Evidence of this leniency is supported by results of this study. Nonetheless, this is not to suggest that Kansas' criminal justice system does not have issues with the treatment of women. A study conducted by Browne, Melander, Boppre, and Edwards (in press) discovered that a recent spike in the inmate population of Topeka Correctional Facility, the state's only female prison, was attributed to probation practices that negatively impacted women at a higher rate than men. Thus, future research should focus on the legal practices surrounding the high rate of women convicted of felonies but placed on probation.

In terms of race and ethnicity, the results indicated that black and Hispanic defendants received harsher sentences than white defendants in the models analyzed. Research on focal concerns provide several rationales to explain this occurrence. Focal concern factors, including employment status and educational attainment, are perceived to have a racial undertone in that many minority defendants lack similar status in these areas when compared to white defendants (Spohn & Holleran, 2000). Freiburger (2009) conducted a study that examined sentencing decisions influenced by focal concerns and found that those who committed more serious offenses, had more prior felony convictions, and had less than a high school education were more likely to be incarcerated. This resulted in a greater negative impact for black defendants in that they normally scored worst under these elements than their white counterparts. Holmes and D'Amato (2020) discovered that the application of focal concerns negatively impacted black defendants as well. Their findings indicated that young black males were particularly

disadvantaged in their propensity to receive government-sponsored departures because judges utilized extra-legal factors in establishing their decision to grant departures. Moreover, Sharp, Braley and Marcus-Mendoza (2000) applied focal concerns theory to assess treatment of white and minority women convicted of drug offenses. Their results showed that being convicted of crack cocaine offenses was associated with longer sentences for black women, despite the fact that white women were just as likely to use crack. They maintained that this was partially due to an "evil woman" notion attributed to black women. Thus, this theory can be used to examine notions of intersectionality at sentencing.

Although the focal concerns perspective has several strengths in explaining study findings, it also has a number of weaknesses. A main weakness is that it is outdated. The theory is over 22 years old and there has been no recent update. Criminal sentencing has evolved over time, but this theory has not. Ulmer (2019) proposed that viewing criminal courts as an inhibited institution is a more modern perspective that properly accounts for the current structure of sentencing. This perspective suggests that institutions are inhibited from the bottom up by individual and organizational actors. Thus, criminal justice structures, like courts and their sentencing decisions, are dependent on court participants. He suggests that the roles of courtroom actors are often blurred; therefore, instead of studying individual actors such as judges or prosecutors, researchers should examine the interactions that jointly produce discretionary decisions. Scholars should consider the charges filed by prosecutors and the plea deals offered, as well as the pretrial release decisions made by judges (e.g., bail amount) and their decision to use departures from guidelines when assessing sentencing decision making. Research even suggests actions taken by probation officers can impact sentencing decisions. Leiber, Beaudry-Cyr, Peck, and Mack (2018) found that sentencing recommendations made by the probation

officer during pre-sentencing investigations led to lengthier sentences for black male defendants. Thus, it is important that sentencing research encompass all actions of the courtroom as a working group. This differs from the focal concerns perspective that views sentencing outcomes as the product of a case-by-case interpretation of rationality made by judges (Kramer & Ulmer, 2009; Ulmer, 2019; Ulmer & Johnson, 2004).

The court as an inhibited institution perspective is applicable to the results of this study. The findings indicated that accepting a plea deal and being in custody during pretrial were two significant correlates of sentencing outcomes. Hence, this perspective may be more pertinent than focal concerns in explaining sentencing variability in the courts. Data on prosecutors are needed to further examine this notion. Nonetheless, the results from the present study strongly support the focal concerns perspective; findings at the individual case-level support the validity of this theory.

The Racial Threat Perspective

Blalock's (1967) racial threat perspective contended that as the relative size of a racial or ethnic group increases, members of the white-majority group perceive the change to be a threat requiring actions to suppress the minority population. As a result, increased law enforcement presence, stiffer sentencing laws, and harsher punishments are imposed at elevated levels for minorities in these areas. This premise served as the theoretical underpinning for the judicial district-level of analysis.

The judicial district HLM interaction model assessed how the racial and ethnic composition of a community impacts sentencing outcomes. Analysis of the interaction between black defendants and the black population within a judicial district provided strong support for the racial threat perspective. The results indicated that black defendants were more likely to be

imprisoned and received longer sentences in judicial districts with higher black populations. This mirrors Ulmer and Johnson's (2004) study of sentencing outcomes in which they found that black defendants received longer sentences in counties with higher black populations. Finding similar results, Taylor (1998) linked the racial threat theory to racial prejudice in her assessment of general census survey response and census data. Her analysis revealed that racial prejudice positively interacted with racial composition in that prejudice among whites increased with local black population size. This premise can be extended to Bonilla-Silva's (1997) structural theory of racism, which contends that racism is based on the notion of racialized social systems. He proposed that racial ideology becomes an organizational map that guides actions of racial actors in society to reproduce black structural disadvantages. Based on this notion, findings from the present study could suggest that the structural disadvantage for black defendants is conditioned by black population size, which is perceived as a racial threat. This premise only stands true for black defendants; minority composition (both black and Hispanic populations) did not provide any statistically significant estimates for Hispanic defendant interactions.

Blalock (1967) contended that racial threat takes two forms: political threat and economic threat. Political threat refers to the feelings that whites experience when minorities increase their political power. Economic threat refers to challenges that minorities present to whites in terms of jobs and housing. The original HLM models tested in this study included a measure for the Republican percentage of each judicial district. The variable was removed from analysis after diagnostic testing revealed high levels of multicollinearity.[29] Nonetheless, the judicial district's median household income variable served as a measure of economic threat. While this variable

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[29] Percent Republican was highly correlated with the metro JD variable. The majority of metropolitan communities in the state were non-Republican.

did not produce any statistically significant estimates in the main judicial district HLM model, it did in the interaction model. It was found that the sentence lengths of Hispanic defendants decreased as median household income in a judicial district increased. This is the opposite of what the racial threat and prior research suggests. For example, Ulmer and Kramer (1996) discovered that black defendants' odds of going to state prison in the "Rich County" were 1.7 times higher than those of white defendants. Researchers correlated this to the fact that black defendants in this county came from the inner-city and were more often poor, unemployed, on welfare and less educated. This led to a disadvantage in the view of courtroom actors. Negative perceptions of minorities were anticipated to exist in Kansas' judicial districts with higher median incomes, which in turn would lead to harsher sentences for minority defendants. The study results suggest that this was not true for Hispanic defendants.

All in all, the judicial district-level of analysis provided mixed support for the racial threat perspective. The analysis of the relationship among minority population composition, race of defendants and sentencing outcomes indicated that black defendants sentenced in jurisdictions with higher black populations were associated with increased odds of imprisonment and longer sentences. This strongly supports the main premise of the racial threat perspective. Conversely, examination of a judicial district's median household income and Hispanic defendants did not support Blalock's (1967) concept of economic threat.

Comparison between Regression and HLM

A secondary purpose of this study was to compare single-level and multilevel analyses of sentencing outcomes. Traditional logistic and ordinary least squares (OLS) regression models were run to produce single-level estimates. A two-level HLM model was used to produce multilevel estimates. Table 6.2 displays these comparisons.

The individual case-level of analysis examined how defendant and judge factors influenced sentencing outcomes. The regression models assessed this at the single-level. The HLM models examined this through a multilevel approach in which individual case-level factors (level 1) were nested by judicial districts (level 2). Logistic regression estimates were compared to HGLM estimates and OLS regression estimates were compared to HLM estimates. In reviewing the results across the various models and statistical approaches, all produced analogous findings for individual case-level defendant legal factors. Measures for offense type, legal representation, pretrial release status, acceptance of plea deals, and sentence range all achieved acceptable levels of statistical significance and the estimates were in the same directions. An interesting finding in these results is that both regression and HLM models found that defendants convicted of drug offenses had reduced odds of imprisonment but received longer sentences when incarcerated. The lower odds of imprisonment may be the result of a high number of drug possession convictions in which defendants most likely fall within the presumptive probation portion of the sentencing guidelines. The longer sentences for imprisoned defendants is likely the result of drug distribution convictions in which defendants have higher chances of falling in the presumptive prison portion of the sentencing guidelines that mandate lengthy sentences in comparison to other sentencing grid positions. Another interesting finding of all the models was that defendants with court-appointed counsel were associated with less

odds of imprisonment and reduced sentence lengths. This contradicts what past scholarship has found and more research should further examine these findings (Beck & Shumsky, 1997; Cunningham & Vigen, 1999; Joy & McMunigal, 2012).

As it pertains to extra-legal factors, measures of race and gender also displayed consistent results between the traditional regression and HLM models. The notion that female defendants are the recipients of lighter sentences was supported in all of the models. In terms of race, the results from each approach indicated a positive association with sentence length for black defendants but produced non-statistically significant estimates for the imprisonment decision. As for ethnicity, both logistic and HGLM estimates found evidence that suggests Hispanic defendants had a higher likelihood of imprisonment compared to their white counterparts. None of the models generated statistically significant estimates for sentence length for Hispanic defendants. The measure for U.S. citizenship also displayed consistent findings. The models displayed that non-U.S. citizens were associated with increased odds of imprisonment, but reduced sentence lengths. Shorter sentence lengths may be the result of non-U.S. citizen defendants being placed on a U.S. Immigration and Customs Enforcement (I.C.E) detainer and subsequently transferred to the federal system for immigration violations that stim from their felony conviction. Lastly, none of the models generated statistically significant estimates for defendant's age at sentencing or age at sentencing squared. Thus, none of the models found support for the assumption that a non-linear relationship exists.

Judge characteristics produced varying results across the statistical approaches. The only demographic measure of judges that produced statistically significant estimates was the gender of the judge in the logistic regression model. Findings indicated that female judges were associated with reduced odds of imprisonment compared to male judges. In terms of

occupational experience of judges, only the logistic regression model produced statistically significant estimates. Findings indicated that judges who were former prosecutors were associated with higher odds of imprisonment. As for the educational background of judges, both the logistic regression and HGLM model produced estimates that indicated that being sentenced by a judge who attended Kansas' law school 1 was associated with a decreased likelihood of imprisonment. Both measures for sentence length did not produce statistically significant estimates. As for the judicial selection process, results for both approaches for the decision to imprison indicated that appointed judges were associated with increased odds of imprisonment; measures for sentence length were not statistically significant. In terms of caseload pressure, judges' caseload size, departure rate and drug offense rate produced varying statistically significant estimates. The only caseload measure that produced analogous results was judges serious offense rate in which unit increases in a judge's serious offense rate was found to be associated with increased odds of imprisonment and longer sentences.

Analysis of judicial district-level measures produced few statistically significant estimates, none of which were statistically significant in both the traditional regression and HLM models. These findings suggest that regardless of the statistical approach, little variability in sentencing outcomes can be explained at the judicial district-level. In fact, the adjusted r-squared value for the judicial district-level (OLS) regression model was 0.01. This means that only 1 percent of variation in sentence length can be explained by judicial district-level measures; nevertheless, assessment at this level is crucial to understanding the influence of social context on sentencing. Analysis of the judicial district-level interactions permitted the use of race and ethnicity interactions. These measures assisted in properly evaluating notions of racial/ethnic threat within Kansas' judicial districts.

This section provided a comparative review of single-level and multilevel analysis of sentencing outcomes. Single-level analysis lent to traditional regression techniques of logistic and OLS regression to produce estimates. This was compared to multilevel HGLM and HLM models. Use of both approaches produced results that were consistent for individual case-level defendant factors and relatively consistent results for individual case-level judge factors. Conversely, very few variables reached statistical significance for judicial district-level factors. In examining all the measures as a whole, the traditional regression models produced more statistically significant estimates. Such findings do not suggest that the regression models produced more sound results; in fact, the contrary is true. Scholars have maintained that the increased levels of significance often found in regression analyses are because the estimates are based on an inflated number of degrees of freedom (Bryk & Raudenbush, 1992; Ulmer & Johnson, 2004). HLM adjusts the degrees of freedom to correctly represent the number of level 2 units. Additionally, it allows researchers to overcome the aggregation of bias that occurs when a measure takes on a different meaning at a different level of analysis. It also permits the partition of variance within and between levels 1 and 2, which allows researchers to evaluate the amount of variation that exists at each level. Lastly, and arguably most importantly, HLM allows one to precisely estimate regression coefficients while simultaneously modeling separate, but interrelated units of analysis (Bryk & Raudenbush, 1992). Such procedures analytically match the structure of sentencing.

Table 6.2.
Statistical Approach Comparisons

	Imprisonment		Sentence Length (LN)	
Individual Case-Level Factors	Logistic	HGLM	OLS	HLM
Criminal History Score	+	+	-	-
Violent Offense	+	+	+	+
Property Offense	n.s.	n.s.	-	-
Drug Offense	-	-	+	+
Court-Appointed Counsel	-	-	-	-
In-Custody Pretrial	+	+	+	+
Plea Deal	-	-	-	-
Special Rule Applied	+	+	-	-
Mitigated Sentence	+	+	-	-
Aggravated Sentence	+	+	+	+
Departure Sentence	+	+	-	-
Female Defendant	-	-	-	-
Black Defendant	n.s.	n.s.	+	+
Hispanic Defendant	+	+	n.s.	n.s.
Non-U.S. Citizen Defendant	+	+	-	-
Defendant's Age	n.s.	n.s.	n.s.	n.s.
Defendant's Age SQ	n.s.	n.s.	n.s.	n.s.
Female Judge	-	n.s.	n.s.	n.s.
Judge's Age	n.s.	n.s.	n.s.	n.s.
Former Prosecutor Judge	+	n.s.	n.s.	n.s.
Judge Attended KS Law Sch 1	-	-	n.s.	n.s.
Republican Judge	+	n.s.	+	n.s.
Appointed Judge	+	+	n.s.	n.s.
Judge Caseload	n.e.	n.s.	-	n.s.
Judge Departure Rate	-	n.s.	+	n.s.
Judge Drug Offense Rate	+	+	n.s.	n.s.
Judge Serious Offense Rate SQRT	+	+	+	+
Judicial District-Level Factors				
JD Median Income	n.e.	n.s.	-	n.s.
JD Black Population	n.s.	n.s.	n.s.	n.s.
JD Hispanic Population	n.s.	n.s.	n.s.	n.s.
Metro JD	+	n.s.	n.s.	n.s.

+ = positive relationship to outcome
- = negative relationship to outcome
n.s. = no significant relationship to outcome
n.e. = no effect

Policy Implications

Through the assessment of sentencing outcomes based on individual case- and judicial district-level factors, this study tested hypotheses, applied findings to underlying theoretical perspectives and provided a comparison between traditional regression and HLM models. These efforts were not only beneficial for analytical purposes but also in a practical sense. Findings in this study identify real problematic issues within the criminal justice system and yield useful information for policymakers. This section of the paper will provide a number of policy recommendations that stem from the research conducted.

An important finding of the present study was that being in custody during pretrial was associated with higher odds of imprisonment and longer sentences. Past studies have linked this notion to racial disparity, finding that both black and Hispanic defendants were more likely to be detained before trial and receive higher bail amounts than white defendants (Nagel 1983; Patterson & Lynch 1991). Applying concepts of focal concerns theory to this notion, research has found that court officials often attain a perception that minority defendants are more dangerous, more likely to recidivate, and less likely to be deterred (Chiricos & Bales, 1991; Demuth & Steffensmeier, 2004; Williams, 2003). These negative perceptions result in higher odds of being detained during pretrial. The present study did not test race interactions for Hispanic and black defendants in pretrial release decisions. Nonetheless, proper attention should be applied to assessing these factors collectively, as both were associated with harsher sentencing outcomes. Pertaining to policy recommendations, the state of Kansas should engage in bail reform efforts to minimize the impact that pretrial status has on sentencing outcomes. In 2019, the New York State legislature passed a bail reform bill that restricted which charges were eligible for money bail, mandated released on own recognizance (ROR) in most situations, and

required that judges consider an individual's ability to pay when setting money bail. The results from a study conducted by Lu, Bond and, Chauhan (2019) indicated that these efforts instantly reduced the number of black and Hispanic defendants detained during pretrial. Likewise, Barno, Martinez and Williams (2019) found that Orange County, California's shift to a non-cash bail system was implemented without an increase in failures to appear. Such efforts ensure that only defendants convicted of the most serious crimes are detained during pretrial; this has been found to reduce the negative impact of bail on minority defendants (Patterson & Lynch 1991; Wiseman, 2018). Kansas should follow suit in designing its own bail reform efforts.

Another noteworthy finding of the study was the impact the appointed judges had on defendants' cases; the examination of this element was unique to this study in that only one other state has a system with two judicial selection processes (Gordan & Huber, 2007). Analysis of individual case-level factors revealed that defendants with appointed judges were found to have higher odds of imprisonment than defendants with elected judges. Kansas' dual judicial election process was constructed through politics and not evidence-based research. Additionally, only a few empirical studies have examined which process is better (Cohen & Yang, 2019; Gordan & Huber, 2007; Lim, 2008). Thus, a policy recommendation is that the state engage in a full evaluation of the judge selection process. Determination of the best approach should be based on public insight, legal inquiry, and empirical evidence. The dual appointment process has been in place for nearly 50 years; it is time for Kansas lawmakers to closely examine its effectiveness.

The final policy recommendation relates to the demographic makeup of judges. A main premise of the current study was to assess inter-judge sentencing disparity by examining demographic, occupational and political characteristics of judges. Unfortunately, analysis of race of judges was dropped due to a lack of diversity. Ninety-six percent of Kansas' judges were

white. This is not an issue experienced in Kansas alone. An assessment of racial diversity within state courts by Reddick, Nelson and Caufield (2009) revealed that eight states reported a minority judicial representation of less than 1 percent. Statistics from George and Yoon (2017) reported that the national average of black judges in state courts was 7 percent; it fell to 5 percent for Hispanic judges. There is also evidence of a lack of gender diversity on the Kansas bench. The National Association of Women Judges reported that 34 percent of the nation's judges are women; this is twice more than Kansas' 17 percent, but still fairly lower than their male counterparts. Nevertheless, studies have shown that increases in minority and female representation among judges reduces sentencing disparities (Boyd & Nelson, 2017; Johnson, 2006; Welch, et al., 1988). Thus, a policy recommendation is to diversify the bench.

Diversifying the bench should start by increasing the number of women and minority students in law school. A 2020 report by the American Bar Foundation found that only 12.7 percent of law students are Hispanic and 7.8 percent are black (Kurts, 2020). To add diversity to the bench, law schools need to have guided efforts of recruitment. The U.S. Department of Education instituted the Ronald E. McNair Scholars program to increase the number of underrepresented groups in doctoral programs. Participation in the program involves Graduate Record Examinations (GRE) preparation, graduate school application assistance and faculty mentorship. A similar program should be instituted for law schools and funded by the U.S. Department of Justice. This program should include opportunities for mentorship by judges who are also part of underrepresented groups. If the steps identified in this section are properly taken, many of the main influencers of sentencing disparity highlighted in this study will be reduced.

Limitations

Although this study produced notable findings from which a number of policy
recommendations were drawn, it is not without limitations. Major limitations include inadequate
data measures of race, lack of information on factors at each level of analysis, and deficiencies
caused by use of criminal justice administrative data for statistical research. This section further
elaborates on these weaknesses.

At the outset, it was established that a main rationale of this study was to examine
sentencing disparities on the basis of race and ethnicity at the individual case- and judicial
district-levels. This study exhibits some limitations at each level. At the individual case-level, the
current study was unable to assess sentencing outcomes of defendants who were not white,
black, or Hispanic. In an attempt to formulate an additional race category, defendants who were
recorded as Native American, Asian and "other" by the sentencing commission were grouped
together to form its own category. Even with these efforts, this group represented only 2 percent
of all cases. Examination of their distribution revealed that several judges and judicial districts
had no defendants that fell within this category, so these cases were removed from final
analysis.[30] This was a major limitation because a growing body of literature suggests that
minority groups outside of black and Hispanics also experience issues of sentencing disparity
(Franklin, 2015; Johnson & Betsinger, 2009). In terms of judges, the lack of nonwhite judges
eliminated the possibility to examine inter-judge disparity on the basis of race. Because of this,
H_5, which hypothesized that minority judges would sentence more severely than white judges,
could not be tested. At the judicial district-level, data on black and Hispanic populations were

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[30] 696 cases were removed before final analysis because the defendant's race was in the "other" category.

outdated. In effort to use the last official dataset provided by the U.S. Census Bureau, the present study analyzed data from 2010. These data likely varied considerably from minority compositions of judicial districts during the study time frame (2016-2018). Additionally, because several rural judicial districts had a small number of minority defendants, there was little variability found in the black and Hispanic judicial district interaction models. Thus, a more efficient approach would be to generate HLM models of judicial districts that had at least 15 percent of their sentences with black or Hispanic defendants. Such efforts may identify more variability in sentencing outcomes of minority defendants at the judicial district-level.[31]

The second major limitation regards the study's lack of information on several key factors needed to fully assess sentencing disparity. At the individual case-level, obtaining defendants' socio-economic status, highest education level attained, employment history, and marital status would have been helpful. KSSC does not keep this information and the de-identified dataset made it impossible to gather it independently. Nevertheless, studies have shown each of these factors contributes to sentencing disparity (Kutateladze, Andiloro, Johnson & Spohn, 2014; Spohn & Holleran, 2000; Ulmer & Kramer, 1996). Additionally, more background information on judges would have assisted efforts in examining inter-judge disparity. Measures such as tenure on the bench, years of experience before appointment to the bench, and occupational information other than if the judge was previously a prosecutor, would have strengthened analysis. At the judicial district-level, only measures for racial/ethnic composition, median income, and metropolitan status were analyzed. Including other measures,

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[31] The current study did not attempt such approach because the objective was to present a statewide analysis of sentencing disparity. A larger dataset or data from multiple Midwestern states would be needed to follow this approach to avoid eliminating a high proportion of rural judicial districts.

such as judicial districts' major political party affiliation or crime rates would have been beneficial. Past research has found that increases in both factors are associated with harsher sentences (Britt, 2000; Johnson et al., 2008; Ulmer & Johnson, 2004). Data on many of these measures were captured but removed during diagnostic testing and thus not analyzed. Additionally, a key component of the racial threat perspective is that criminal sanctions tend to be more punitive on minority defendant's when their representation in the general public rises over 25 percent and continues to increase (Wang & Mears, 2015). The current study did not have a measure for how percent increases of minority populations overtime impact sentencing outcomes. Thus, this component of the theory was not examined.

Lastly, analyzing data collected for administrative records to follow legal structure rather than for statistical purposes created a number of issues. For example, criminal history scores in Kansas run on a continuum that ranges from I (no previous convictions) to A (three prior person felonies). These values are used in the calculation of all defendants' cases. Criminal history scores are not calculated for convictions of nongrid (e.g. DUI) or off-grid (e.g. first degree murder) crimes, since defendants convicted of these offenses are sentenced in accordance with statute penalties and not the guidelines. Thus, defendants who received some of the shortest sentences (nongrid convictions) and longest sentences (off-grid convictions) did not have scores for criminal history. Recoding was done to account for these missing data, but challenges in the final models analyzed remained. There were also issues with the recoding of offense severity levels. Failed attempts at recoding Kansas' two-guideline system into one scale led to this variable being dropped from final analysis.[32] This was a critical limitation, as literature suggests

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[32] Kansas utilizes two sentencing grids: one for drug crimes and another for nondrug crimes (See Appendixes A and B). The drug grid ranges from severity levels 1 to 5, with severity 1 being the most serious and 5 being the least. The

offense severity level is one of the strongest predictors of sentencing outcomes (Franklin &

Henry, 2020; Johnson, et al., 2008). Even with these limitations, the findings of the present study

improve our understanding of multiple levels of influence on sentencing decisions. The

following section identifies steps for future research.

Future Research

Future research can build upon findings of this study to further investigate how individual

case- and judicial district-level factors impact sentencing decisions. One step that scholars should

take is the acquisition of data on more courtroom actors. Data provided by the KSSC only

identified the sentencing judge, but information on the prosecutor and defense attorney assigned

to the case would have been beneficial. Demographic, occupational, and political information of

these courtroom actors would strengthen the utility of the individual case-level analysis.

Additionally, it would permit assessment of Ulmer's (2019) courts as inhabited institutions

perspective. If such information is unattainable, measures for the racial and ethnic composition

of courtroom personnel within a judicial district would be adequate. A study conducted by Ward

et. al, (2009) utilized demographic composition data of judges and prosecutors within federal

district courts to examine its influence on sentencing outcomes. Their results showed that federal

districts with increased black representation among prosecutors and judges was associated with

reduced odds of incarceration for black defendants. A similar assessment could be conducted at

the state level in Kansas with more data on courtroom actors.

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nondrug grid ranges from 1 to 10, with 1 being the most severe and 10 being the least. In an attempt to recode these

grids into one, a 5-point score was created in which nondrug offenses were scored 1 through 4 and all drug offenses

were scored as 5. Although this made practical sense, the odds ratio that it produced was problematic. Thus, this

variable was dropped from final analysis.

An additional measure that can improve future research is the application of other statistical approaches. Traditional regression and HLM models were utilized in this study, but there are a number of other statistical approaches that could also have been used. For example, Franklin (2015) found that a propensity score matching procedure, as opposed to traditional regression methods, provided more accurate estimates of the sentencing outcomes of white, black, and Hispanic defendants sentenced in federal court. Thus, future research should examine sentencing outcomes in Kansas through use of other statistical approaches.

The last recommendation for future research is use of a qualitative framework to further examine study findings. Qualitative research entails providing an understanding of why something occurs or exists rather than how. It seeks to explore and understand a phenomenon to make sense of a person's or group's reality or perception(s) of an issue (Creswell & Creswell, 2017). This type of research is concerned with the process of how something happens and not merely the outcome. Future scholars should follow up with qualitative efforts of each group included in the study. Interviews with defendants could help researchers understand why being in custody during pretrial is strongly associated with more punitive sentences. Focus groups with panels of judges could help identify which focal concerns have the greatest influence on their sentencing decisions. Lastly, interviews with residents of judicial districts would help uncover contextual themes. The results of the present study indicate that sentencing disparities exist. The utilization of a qualitative methodology in future research may help uncover the "why" behind these findings.

Conclusion

The purpose of the present study was to examine the existence of sentencing disparity in Kansas at multiple levels, with special attention attributed to the treatment of minority

defendants. This study was constructed with three research questions in mind; (1) Are disparities in sentencing outcomes in Kansas based on extra-legal factors of defendants? (2) Do sentencing outcomes vary among judges? (3) Do sentencing outcomes vary across judicial districts? The findings of this study favor an affirmative for each of these questions. Findings of defendants at the individual case-level revealed that while the majority of legal factors influenced sentencing outcomes, there were a number of extralegal factors that also impacted sentencing decisions. Namely, Hispanic and black defendants tended to receive harsher sentences than their white counterparts. These findings are consistent with focal concerns theory. Also at the individual case-level, the judicial selection process (appointed v. elected) and judge case composition factors impact sentencing outcomes. One of the most interesting findings at this level was that cases heard by appointed judges were associated with a higher likelihood of imprisonment. Judicial district-level analysis provided less insight on influences of sentencing outcomes, as many of the measures failed to produce statistically significant estimates. Nevertheless, judicial district-level race/ethnicity interaction models provided notable findings in support of the racial threat perspective. Results revealed that black defendants had a higher likelihood of imprisonment and were given longer sentences in judicial districts with higher compositions of black residents.

A secondary purpose of this study was to provide a comparison between single-level and multilevel methodological approaches. Traditional approaches of logistic and ordinary least squares (OLS) regression models were run for baseline analysis. This was then compared to results of HGLM and HLM models. Across all of the models, the traditional regression analyses yielded more statistically significant estimates. This is not to be interpreted as providing better results. In fact, research suggest that the robust modeling strategy of HLM corrects for many of

the errors of traditional regression to provide more sound estimates (Bryk & Raudenbush, 1992). Because of this, fewer variables of statistical significance are obtained in HLM models, but the estimates are more accurate.

The strength of this study was not in its statistical modeling strategy, pertinence to underlying theoretical perspectives, or even formation of support for the research questions; rather, the importance of this work is its applicability to real world issues. With calls for racial conciliation and criminal justice reform becoming even louder in the wake of the deaths of George Floyd, Ahmaud Arbery, and Breonna Taylor, it is imperative that sound criminological research is conducted on hard topics. It is evident from the results of this study that there are disparate sentencing outcomes attributed to minority defendants in Kansas. These findings highlight the need for the formation of a sentencing scheme that maintains public safety yet promotes equal justice for all. The findings from this study should not be ignored, but rather used as a tool to endorse change.

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Appendix A - Kansas' Felony Nondrug Sentencing Grid

SENTENCING RANGE – NONDRUG OFFENSES

Category → Severity Level ↓	A: 3+ Person Felonies	B: 2 Person Felonies	C: 1 Person & 1 Nonperson Felonies	D: 1 Person Felony	E: 3+ Nonperson Felonies	F: 2 Nonperson Felonies	G: 1 Nonperson Felony	H: 2+ Misdemeanor	I: 1 Misdemeanor No Record
I	653 / 620 / 592	618 / 586 / 554	285 / 272 / 258	267 / 253 / 240	246 / 234 / 221	226 / 214 / 203	203 / 195 / 184	186 / 176 / 166	165 / 155 / 147
II	493 / 467 / 442	460 / 438 / 416	216 / 205 / 194	200 / 190 / 181	184 / 174 / 165	168 / 160 / 152	154 / 146 / 138	138 / 131 / 123	123 / 117 / 109
III	247 / 233 / 221	228 / 216 / 206	107 / 102 / 96	100 / 94 / 89	92 / 88 / 82	83 / 79 / 74	77 / 72 / 68	71 / 66 / 61	61 / 59 / 55
IV	172 / 162 / 154	162 / 154 / 144	75 / 71 / 68	69 / 66 / 62	64 / 60 / 57	59 / 56 / 52	52 / 50 / 47	48 / 45 / 42	43 / 41 / 38
V	136 / 130 / 122	128 / 120 / 114	60 / 57 / 53	55 / 52 / 50	51 / 49 / 46	47 / 44 / 41	43 / 41 / 38	38 / 36 / 34 (Border Box)	34 / 32 / 31 (Border Box)
VI	46 / 43 / 40	41 / 39 / 37	38 / 36 / 34	36 / 34 / 32	32 / 30 / 28	29 / 27 / 25	26 / 24 / 22 (Border Box)	21 / 20 / 19	19 / 18 / 17
VII	34 / 32 / 30	31 / 29 / 27	29 / 27 / 25	26 / 24 / 22	23 / 21 / 19	19 / 18 / 17	17 / 16 / 15	14 / 13 / 12	13 / 12 / 11
VIII	23 / 21 / 19	20 / 19 / 18	19 / 18 / 17	17 / 16 / 15	15 / 14 / 13	13 / 12 / 11	11 / 10 / 9	11 / 10 / 9	9 / 8 / 7
IX	17 / 16 / 15	15 / 14 / 13	13 / 12 / 11	13 / 12 / 11	11 / 10 / 9	10 / 9 / 8	9 / 8 / 7	8 / 7 / 6	7 / 6 / 5
X	13 / 12 / 11	12 / 11 / 10	11 / 10 / 9	10 / 9 / 8	9 / 8 / 7	8 / 7 / 6	7 / 6 / 5	7 / 6 / 5	7 / 6 / 5

Probation Terms are:
36 months recommended for felonies classified in Severity Levels 1-5
24 months recommended for felonies classified in Severity Levels 6-7
18 months (up to) for felonies classified in Severity Level 8
12 months (up to) for felonies classified in Severity Levels 9-10

Postrelease Supervision Terms are:
36 months for felonies classified in Severity Levels 1-4
24 months for felonies classified in Severity Levels 5-6
12 months for felonies classified in Severity Levels 7-10

Postrelease for felonies committed before 4/20/95 are:
24 months for felonies classified in Severity Levels 1-6
12 months for felonies classified in Severity Level 7-10

LEGEND
Presumptive Probation
Border Box
Presumptive Imprisonment

Appendix B - Kansas' Felony Drug Sentencing Grid

SENTENCING RANGE- DRUG OFFENSES

Categories→ Severity Level ↓	A 3 + Person Felonies	B 2 Person Felonies	C 1 Person & 1 Nonperson Felony	D 1 Person Felony	E 3 + Nonperson Felonies	F 2 Nonperson Felonies	G 1 Nonperson Felony	H 2 + Misdemeanors	I 1 Misdemeanor No Record
I	204 194 185	196 186 176	187 178 169	179 170 161	170 162 154	167 158 150	162 154 146	161 150 142	154 146 138
II	144 136 130	137 130 122	130 123 117	124 117 111	116 111 105	113 108 101	110 104 99	108 100 96	103 98 92
III	83 78 74	77 73 68	72 68 65	68 64 60	62 59 55	59 56 52	57 54 51	54 51 49	51 49 46
IV	51 49 46	47 44 41	42 40 37	36 34 32	32 30 28	26 24 23	23 22 20	19 18 17	16 15 14
V	42 40 37	36 34 32	32 30 28	26 24 23	22 20 18	18 17 16	16 15 14	14 13 12	12 11 10

Presumptive Probation
Border Box
Presumptive Imprisonment

- Fines not to exceed $500,000 (SL1-SL2), $300,000 (SL3-SL4), $100,000 (SL5)
- Severity level of offense increases one level if controlled substance or analog is distributed or possessed w/ intent to distribute on or w/in 1000 ft of any school property.

| Levels	Distribute or Possess w/ intent to Distribute			Manufacture (all)	Cultivate	Dosage Units	Postrelease	Probation	Good Time
	Cocaine	Meth & Heroin	Marijuana						
I	≥ 1 kg	≥ 100 g	≥ 30 kg	2nd or Meth	>100 plants	>1000	36	36	15%
II	100 g - 1 kg	3.5 g - 100 g	450 g - 30 kg	1st	50-99 plants	100-999	36	36	15%
III	3.5 g - 100 g	1 g - 3.5 g	25 g - 450 g		5-49 plants	10-99	36	36	**20%
IV	< 3.5 g	< 1 g	< 25 g			<10	24	'≤ 18	20%
V	Possession	Possession	Possession-3rd offense				12	'≤12	20%

* ≤ 18 months for 2003 SB123 offenders
** Retroactive application for offense committed on or after July 1, 2012
*** Severity Level increases one level if on or w/in 1000 ft of any school property

Appendix C - Kansas' Judicial District Map

Kansas Judicial Districts
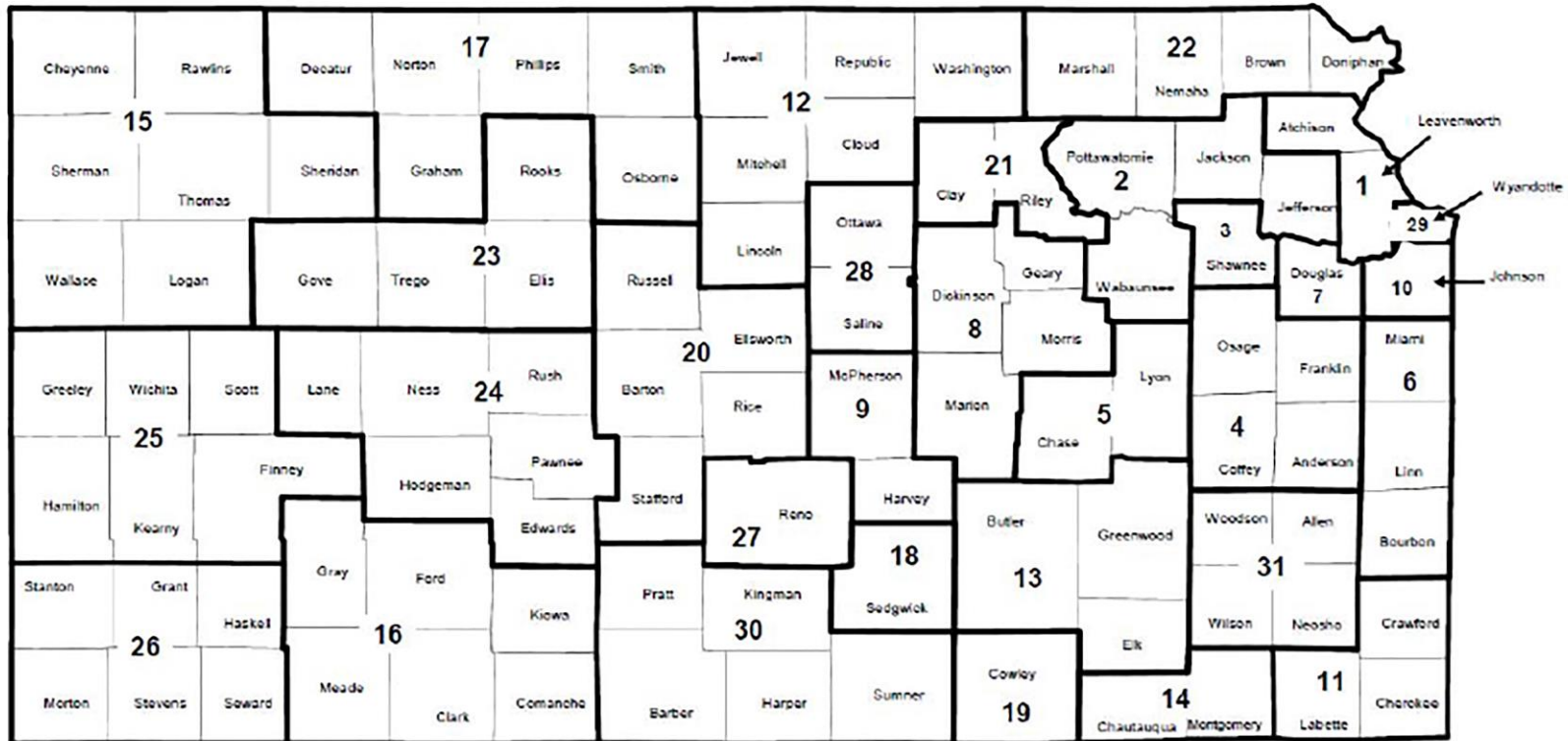
Appendix D - Individual Case-Level Correlation Matrix

	Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Imprisonment	1.												
2	Sentence Length	.a	1.											
3	Criminal History Score	.38**	-.16**	1.										
4	Violent Offense	.21**	.52**	.	1.									
5	Property Offense	-.02**	-.37**	.12**	-.29**	1.								
6	Drug Offense	-.15**	.04**	-.05**	-.37**	-.42**	1.							
7	Court-Appointed Counsel	.07**	-.11**	.20**	-.03**	.11**	.	1.						
8	In-Custody Pretrial	.45**	.04**	.30**	.14**	.03**	-.14**	.21**	1.					
9	Plea Deal	-.12**	-.33**	.	-.11**	.05**	.03**	.03**	-.03**	1.				
10	Special Rule Applied	.24**	-.25**	.22**	-.07**	.05**	-.18**	.03**	.23**	.	1.			
11	Mitigated Sentence	.10**	-.08**	.02**	-.04**	.10**	-.03**	.03**	.07**	.04**	-.03**	1.		
12	Aggravated Sentence	.06**	.17**	.04**	.11**	.05**	-.10**	.	.10**	-.02**	.03**	-.14**	1.	
13	Departure Sentence	.13**	-.17**	.31**	.03**	-.09**	.06**	-.01	.08**	.03**	.01**	-.20**	-.17**	1.
14	Female Defendant	-.16**	-.12**	-.18**	-.15**	.10**	.08**	.06**	-.12**	.03**	-.06**	.03**	-.02**	-.09**
15	Black Defendant	.08**	.08**	.12**	.09**	.	-.09**	.03**	.06**	-.05**	.03**	.05**	.03**	.07**
16	Hispanic Defendant	.01	.02	-.07**	.04**	-.06**	.	-.06**	.	.	-.03**	.	.03**	.01*
17	Non-U.S. Citizen Defendant	.	.02	-.14**	.03**	-.03**	-.02**	-.09**	.01	-.02**	-.05**	.	.01*	-.01**
18	Defendant's Age at Sentencing	.04**	.01	.12**	-.05**	.	.	-.03**	-.03**	-.04**	.03**	.	-.01**	.04**
19	Defendant's Age at Sentencing SQ	.03**	.02	.10**	-.04**	.	-.01	-.03**	-.04**	-.04**	.02**	.	-.01*	.04**
20	Female Judges	.	.	-.02**	-.01	.01	.	-.02**	.	-.01**	.01*	-.01**	-.03**	-.03**
21	Judge Age	-.01**	-.01	.03**	-.01	.02**	.	.02**	-.04**	.01	.	.	-.05**	.03**
22	Former Prosecutor Judge	.04**	-.01	.02**	.	.03**	-.05**	-.03**	.04**	-.02**	.03**	.05**	.06**	.
23	Judge Attended KS Law Sch 1	-.01	.	.02**	.	.02**	-.01*	.02**	-.01*	.	.01*	.	-.03**	.01
24	Republican Judge	.	-.02	-.03**	-.01	.01	-.01*	.03**	.02**	.	-.03**	.06**	.06**	-.06**
25	Appointed Judge	-.01*	-.04**	-.06**	-.05**	.	.05**	-.01	-.08**	.	.	-.12**	-.08**	-.05**
26	Judge Caseload	.02**	-.06**	-.01	-.02**	.06**	-.06**	-.11**	.05**	.	.06**	.12**	.07**	.03**
27	Judge Departure Rate	.01*	.04**	.08**	.05**	-.04**	-.02**	-.05**	.02**	.	.05**	-.01*	.02**	.20**
28	Judge Drug Offense Rate	-.10**	-.02	-.07**	-.13**	-.09**	.27**	.04**	-.17**	.04**	-.07**	-.18**	-.16**	-.01*
29	Judge Serious Offense Rate SQRT	.10**	.14**	.08**	.13**	-.01	-.13**	-.03**	.08**	-.06**	.05**	-.01	.07**	.08**

Individual Case-Level Correlation Matrix (Continued)

	Variables	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	Imprisonment																
2	Sentence Length																
3	Criminal History Score																
4	Violent Offense																
5	Property Offense																
6	Drug Offense																
7	Court-Appointed Counsel																
8	In-Custody Pretrial																
9	Plea Deal																
10	Special Rule Applied																
11	Mitigated Sentence																
12	Aggravated Sentence																
13	Departure Sentence																
14	Female Defendant	1.															
15	Black Defendant	-.07**	1.														
16	Hispanic Defendant	-.06**	-.18**	1.													
17	Non-U.S. Citizen Defendant	-.05**	-.05**	.39**	1.												
18	Defendant's Age at Sentencing	.03**	-.03**	-.09**	-.01	1.											
19	Defendant's Age at Sentencing SQ	.01*	-.02**	-.08**	-.01	.99**	1.										
20	Female Judges	-.01	.	-.05**	-.01**	-.01	-.01	1.									
21	Judge Age	.01	-.01	-.03**	-.03**	.01	.	-.13**	1.								
22	Former Prosecutor Judge	-.01*	.04**	-.04**	-.01	.01	.01*	.01	-.02**	1.							
23	Judge Attended KS Law Sch 1	.01	-.01	.	-.01*	.01	.	-.13**	.34**	-.03**	1.						
24	Republican Judge	.	-.04**	.04**	.01	-.01*	-.01	-.19**	-.05**	.	.07**	1.					
25	Appointed Judge	.02**	-.06**	-.08**	-.03**	-.02**	-.02**	.30**	.03**	.	.10**	-.18**	1.				
26	Judge Caseload	.01*	.08**	.04**	.07**	-.01	-.01	.09**	-.07**	.13**	.04**	-.06**	.07**	1.			
27	Judge Departure Rate	-.04**	.11**	.06**	.03**	.	.	-.16**	.14**	-.01	.03**	-.30**	-.26**	.14**	1.		
28	Judge Drug Offense Rate	.05**	-.15**	.	-.01	-.03**	-.03**	.	.01*	-.18**	-.05**	-.04**	.17**	-.23**	-.06**	1.	
29	Judge Serious Offense Rate SQRT	-.05**	.14**	.02**	.02**	.01	.02**	-.05**	-.05**	.11**	-.04**	-.23**	-.18**	.03**	.39**	-.48**	1.

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

Appendix E - Judicial District-Level Correlation Matrix

	Variables	1	2	3	4	5	6
1	Imprisonment	1.00					
2	Sentence Length	.a	1.00				
3	JD Median Income	0.01	-.11**	1.00			
4	JD Black Population	.06**	.05**	-.22**	1.00		
5	JD Hispanic Population	0	-.03**	.30**	-.09**	1.00	
6	JD Metro	.08**	-0.02	.41**	.53**	-.04**	1.00

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

Appendix F - IRB Approval

KANSAS STATE | University Research
U N I V E R S I T Y | Compliance Office

TO: Dr. W Richard Goe   Proposal Number: 10326

      Sociology, Anthropology, and Social Work

      Waters Hall

FROM: Rick Scheidt, Chair

      Committee on Research Involving Human Subjects

DATE: 12/03/2020

RE: Proposal Entitled, "A Multilevel Assessment of Sentencing Disparity in Kansas: Does
      Sentencing Disparity Differ by Court and Judicial District?"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for
Kansas State University has reviewed the proposal identified above and has determined that it is
EXEMPT from further IRB review. This exemption applies only to the proposal - as written –
and currently on file with the IRB. Any change potentially affecting human subjects must be
approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in
the Federal Policy for the Protection of Human Subjects, **45 CFR §104(d), category: 4,
subsection: .**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination
that research is exempt does not imply that investigators have no ethical responsibilities to
subjects in such research; it means only that the regulatory requirements related to IRB review,
informed consent, and assurance of compliance do not apply to the research.

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Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.