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THE IMPACT OF RACE AND DRUG OFFENSES AT THE FEDERAL LEVEL

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by

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ABSTRACT

THE IMPACT OF RACE AND DRUG OFFENSES

AT THE FEDERAL LEVEL

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Few studies examine the choice to plead out or go to trial, or the decision to hand down a prison sentence especially in the context of race and drug offense. This study used logistic regression to analyze data from the U.S. Sentencing Commission. It explored the impact these characteristics have on whether a defendant goes to trial or takes a plea and the impact they have on whether a defendant receives a prison sentence at the federal level. The study found that Hispanic drug offenders are significantly more likely to go to trial than to take a plea and have a dramatically higher chance of receiving a prison sentence. The odds of black defendants going to trial are also higher than for white defendants. There are surprising findings that run counter to existing research. For example, being black did not impact the imposition of a prison sentence. This study sheds light on various factors impacting these outcomes at the federal level but underscores the need for future research.

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CHAPTER 1

INTRODUCTION

Within the criminal justice system, at the federal level specifically, minority defendants and drug offenders make up a large portion of the federal prison population (Federal Bureau of Prisons, 2019a, 2019b). Multiple studies in the field show that black defendants tend to receive harsher punishments for the same offense compared to their white counterparts (Johnson, 2003; Jordan & Freiburger, 2015; Starr & Rehavi, 2014). Studies have offered various theories and explanations as to why minorities experience disproportionate treatment such as meeting the image of a dangerous drug offender. To explore this issue further, this study is concerned with the impact race and being charged with a drug offense have on outcomes at the federal level of the criminal justice system.

Drug offenders make up almost half of the federal prison population (Federal Bureau of Prisons, 2019a). Studies suggest that the federal sentencing guidelines and mandatory minimums are primary contributors to this issue and to the racial disparities in the federal prison population (Spohn & Sample, 2013). Some studies examine how being viewed as a dangerous drug offender will impact sentencing and how a certain type of drug for a certain type of defendant can impact the prison sentence (Spohn & Sample, 2013). Of the relevant research, few studies take into account how, at the federal level, both race and drug offense may impact the imposition of a prison sentence and whether said defendant takes a plea instead of going to trial, which is the goal of this study.

CHAPTER 2

LITERATURE REVIEW

2.1 Prior Research

2.1.1 Sentencing Disparities and Race

For decades, scholars have examined sentencing disparity in the criminal justice system, a common phenomenon in this field. Minority defendants, black defendants in particular, tend to get tougher sentences than their white counterparts for the same crime (Demuth & Steffensmeier, 2004; Doerner & Demuth, 2010; Starr & Rehavi, 2014). There is also an overrepresentation of minorities in the prison population (Starr & Rehavi, 2014).

There are 74,170 federal inmates currently incarcerated for drug offenses constituting 45.2% of the federal prison population (Federal Bureau of Prisons, 2019a). In terms of race, 58.6% of federal inmates are white while black inmates make up 37.5% of the federal population (Federal Bureau of Prisons, 2019b). Black offenders are more likely than white offenders to be sentenced to prison rather than jail (Jordan & Freiburger, 2015). Judges appear to have a negative bias against black offenders when deciding between jail or prison and the bias usually ended up with the harsher sanction—prison—being imposed on black defendants (Jordan & Freiburger, 2015).

A study conducted a few decades ago relatively soon after the Sentencing Reform Act of 1984 was enacted, also found sentencing disparities at the federal level (Albonetti, 1997). This study found that disparity is linked to ethnicity, gender, education level, and noncitizenship, which were deemed irrelevant under the guidelines. According to the study,

federal sentencing guidelines "have not eliminated sentence disparity linked to defendant characteristics" for those convicted of drug offenses in 1991-1992 (Albonetti, 1997, p. 818).

In general, black defendants have a decreased likelihood of a downward departure from sentencing guidelines and an increased likelihood of an upward departure from the guidelines when compared to white defendants, according to a study done at the state level (Johnson, 2003). This pattern is largely consistent but the degree to which the departure takes place varies widely depending on the mode or method of conviction (Johnson, 2003). For example, the degree to which a downward departure from the guidelines takes place is greater for black defendants who went to trial than those who were convicted through non-negotiated pleas (Johnson, 2003).

When looking at drug offenders, racial disparity is still prevalent (Curry & Corral-Camacho, 2008; Spohn & Sample, 2013). A study examining black drug offenders showed that they may be seen as dangerous, contributing to their longer sentences (Curry & Corral-Camacho, 2008). The image of a dangerous drug offender was examined a few years later in federal courts by Spohn and Sample (2013). This particular study looked at how falling within the definition of the dangerous drug offender[1], race, and prior criminal history interact with determining sentence length (Spohn & Sample, 2013). They found significant within-race differences in sentences imposed on black defendants, especially when they were convicted of trafficking in crack cocaine (Spohn & Sample, 2013). These significant within-race differences were not found in white or Hispanic defendants (Spohn & Sample, 2013). They note that "a handful of federal sentencing studies have examined the

[1] The definition is "a male drug trafficker with a prior trafficking conviction who used a weapon to commit the current offense" (Spohn & Sample, 2013, p. 3)

interaction of race/ethnicity and other extralegal variables" (Spohn & Sample, 2013, p. 7). The study by Spohn and Sample (2013), however, only looked at male drug offenders from three U.S. District Courts.

The finding of punishment varying based on drug type and race is not a new one (Hebert, 1997). In this study, it was found that black defendants convicted for cocaine offenses received harsher punishments than white defendants (Hebert, 1997). This study also found that Hispanic defendants convicted of cocaine and marijuana offenses were sentenced more severely than their white counterparts (Hebert, 1997).

Another study examined how race, drug type, and the federal sentencing strategy used impacted sentence length (Kautt & Spohn, 2002). As with previous studies, they also found racial disparities in sentencing. This study, however, found that the type or amount of drugs "mitigate the sentences of black drug defendants" (Kautt & Spohn, 2002, p. 32). The researchers believe that these "surprising results" stem from federal actors "deliberately mitigating" the impact of the type and amount of drugs in response to the publicity of "black-crack" disparity (Kautt & Spohn, 2002, pp. 32-33).

2.1.2 Sentencing Disparities and Gender

Another defendant characteristic that can play a role in sentencing is gender. A study using data from 2001-2003, found that "a higher percentage of men are incarcerated than women" and that males are more likely to take their case to trial than women (Doerner, 2012, p. 189). The study also looked at drug offenders broken down by gender (Doerner, 2012). Female drug offenders are more likely than their male counterparts to receive a sentencing departure from federal guidelines due to "sympathy from prosecutors or perhaps because of their willingness to give up information about partners or spouses" (Doerner,

2012, p. 199). Franklin and Fearn (2008) also found that females tend to receive shorter prison sentences and suggested that this could be related to a need to protect women even by the judiciary.

Gender was researched again in a different study as it relates to the federal criminal process instead of just sentencing, which found gender disparities throughout the federal criminal process favoring females starting at the arrest through sentencing (Starr, 2014). The dataset here came from four different federal sources, which provided data for each step being analyzed and included multiple offense types (Starr, 2014). When an analysis was run comparing drug and non-drug cases, it was only to look for the effect on the process with gender (Starr, 2014).

2.1.3 Sentencing Disparities and Offense Type

Offense type may also be a contributor to sentencing disparity (Everett & Wojtkiewicz, 2002). For example, this study found that for "economic, drug, and violent crimes, Hispanics were more likely than whites to receive harsh sentences" (Everett & Wojtkiewicz, 2002, p. 205). "Blacks are more often sentenced for more harshly sanctioned drug offenses" and the study showed that this accounts for only part of the overall sentencing disparity in race (Everett & Wojtkiewicz, 2002, p. 206).

When compared to drug offenders at the federal level, violent offenders and offenders with firearm offenses were more likely to get an upward departure from the federal guidelines (Hamilton, 2017). Violent offenders were five times more likely to receive an upward departure (Hamilton, 2017). The odds of this happening for firearm offenders doubled (Hamilton, 2017). When other legal and extralegal factors were

controlled for, the odds of a minority defendant receiving a punishment departing upwards from the guidelines went up 5% (Hamilton, 2017).

2.1.4 Plea Bargains

The right to a trial by jury at the federal level is said to be disappearing (Refo, 2004). Defendants are not being denied the right to have their case decided by their peers, but more cases are being resolved through guilty pleas (Redlich, Edkins, Bibas, & Madon, 2017). Jury trials are starting to become the exception and not the norm. One of the reasons this is the case is because of mandatory minimum sentences (Refo, 2004). Defendants want to avoid being stuck with a stiff sentence if they lose at trial, so they opt for a plea (Refo, 2004). An example of these harsher sentences after being convicted at trial is shown in a study by Ulmer, Eisenstein, and Johnson (2010). They found that there was sentencing disparity between the defendant who went to trial and those who took a plea deal in that the former typically ended up with longer sentences. It was also found, however, that what they referred to as trial penalties were not as severe for black male defendants (Ulmer et al., 2010).

Research has found that race also plays a role in plea bargains. For instance, black and Hispanic defendants are less likely to plead guilty than white defendants (Everett & Wojtkiewicz, 2002; Redlich et al., 2017). Plea deals with specific incarceration lengths attached were offered to 46% of black and 32% of Hispanic defendants whereas similar offers were given to only 22% of white defendants (Kutateladze, Andiloro, Johnson, & Spohn, 2014).

A study of misdemeanor cases in New York City looked at race and other factors such as prior history and offense type to determine how they impacted the likelihood of

taking a plea (Lawson & Kutateladze, 2018). This study found that the combination of prior history, offense type, and offense level has more of an effect on the likelihood of taking a plea than race (Lawson & Kutateladze, 2018). However, this study did not look at the federal level nor did it look at drug offenses (Lawson & Kutateladze, 2018). In fact, the sample used came "from one county" meaning it is "unknown how generalizable the findings" are (Lawson & Kutateladze, 2018, p. 880).

Another study looked at felony pleas and race and race/gender (Metcalfe & Chiricos, 2018). This study also found that black defendants are less likely than white defendants to take a plea (Metcalfe & Chiricos, 2018). In addition, they found that drug offenses have a higher likelihood of being resolved through a plea bargain than violent offenses (Metcalfe & Chiricos, 2018). When they looked at race/sex, they found that black males are less likely to plea and are expected to receive a lower value for a guilty plea. However, the data for this study came from the public defender's office in one county in Florida making the generalizability limited (Metcalfe & Chiricos, 2018).

The research of federal level plea bargains is scarce and tends to overlook the initial decision of going to trial or pleading out. If that decision is examined, it is not done through the lens of race and drug offense. This demonstrates a need to understand how these factors impact that outcome. Furthermore, the majority of existing research examines federal sentencing disparity in terms of length. This leaves the other half of that picture incomplete and because of that, this study also examines the likelihood of a prison sentence in of itself being imposed using race and drug offense to predict that outcome.

CHAPTER 3

THE CURRENT STUDY

3.1 Purpose of the Study

The purpose of this study is to expand on the existing literature on plea bargaining, race, offense type and sentencing. The prior research on sentencing tends to explore the length of any sentence imposed and how race may or may not impact that (Albonetti, 1997; Jordan & Freiburger, 2015; Starr & Rehavi, 2014). Some of these studies also look at drug offenders but not in the terms this research does and operate under the premise that each federal case, drug or otherwise, ends in a conviction and prison sentence (Doerner, 2012; Kautt & Spohn, 2002; Spohn & Sample, 2013), but that is not always the case. Because of this, the current study will help fill in the gaps in this area by exploring whether a prison sentence is imposed at all and how certain defendant characteristics such as race and offense type impact that decision (Johnson, 2003).

While some research has been done examining race and plea bargains, there is a need for additional research to gain a better understanding of this issue. As stated before, Spohn and Sample (2013) found few federal sentencing studies and of those they looked at, one factored in plea bargains. Understanding the impact of how race and being charged with a drug offense have on whether a defendant goes to trial as opposed to entering a guilty plea at the federal level will help fill in the gaps in the current research. In addition, continued research on plea bargain disparities is still needed (Metcalfe & Chiricos, 2018).

3.1.1 Research Questions

It is important to understand the roles that race and being charged with a drug offense play in decisions to go to trial versus entering a guilty plea, and in determining whether a defendant receives a prison sentence. Given the need for additional research in these areas, this thesis proposes to answer the following questions:

1. What impact do race and offense type (i.e., drug offense) have on whether a defendant goes to trial as opposed to entering a guilty plea at the federal level?
2. Does the combination of predictor variables (i.e., race and being charged with a drug offense) impact whether a defendant goes to trial as opposed to entering a guilty plea at the federal level?
3. What impact do race and offense type (i.e., drug offense) have on whether a defendant receives a prison sentence at the federal level?
4. Does the combination of predictor variables (i.e., race and being charged with a drug offense) impact whether a defendant will receive a prison sentence at the federal level?

CHAPTER 4

METHODS

4.1 Overview

4.1.1 Data

The data used in this study comes from the Inter-University Consortium for Political and Social Research (ICPSR). More specifically, this study uses the Monitoring of Federal Criminal Sentences dataset[2]. At the time the data was downloaded, the most recent year available was 2016. The data in this dataset was compiled by the United States Sentencing Commission (USSC) between October 1, 2015 and September 30, 2016. The cases the USSC reported on during the 2016 fiscal year all had sentencing dates between the above timeframe and were deemed constitutional after comparing the sentencing date, circuit, district and judge of each case in order to make the reporting of the cases uniform.

4.1.2 Measures

4.1.2.1 Dependent Variables

There are two dependent variables in this study. The first dependent variable looks at whether the case was settled by plea agreement or trial, and is coded as 0 = plea and 1 = trial. This variable is used because the first two research questions deal with whether the federal criminal case is taken to trial or is ended with a plea agreement. The second dependent variable looks at whether a defendant received a prison sentence, and is coded

[2] Approval from the Institutional Review Board was not required because the public use data was deidentified and is secondary.

as 0 = received no prison sentence and 1 = received prison sentence. This variable does not include any other sentencing alternatives. The last two research questions deal with whether a prison sentence was imposed on the defendant, which is why this dependent variable was used.

4.1.2.2 Independent Variables

A number of independent variables were also used in the study because it is important to examine a variety of factors instead of just one to make sure the results you are seeing capture what is really going on (Doerner & Demuth, 2010) and almost all of the variables are binary. Independent variables such as race, gender, and age are common variables to use in analyses. Age has been shown to impact sentencing outcomes (Doerner & Demuth, 2010) and the age variable used for this study represents the age of the defendant at the time of sentencing. The race variables include the black variable, coded as 0 = non-black and 1 = black, the Hispanic variable, coded as 0 = non-Hispanic and 1 = Hispanic, and the "other race" variable, coded as 0 = non-other and 1 = other race. The variable labeled as female is the gender variable with 0 = male and 1 = female.

The variable labeled as highschool is used to measure education. The education variable is dichotomous and coded as 0 = no H.S. diploma and 1 = H.S. diploma or above. Albonetti (1997) found that the citizenship status of a defendant may play a role in sentencing. As such, whether a defendant is a U.S. Citizen was taken into account and was coded as 0 = Non U.S. Citizen[3] and 1 = U.S. Citizen. Independent variables including weapon, coded as 0 = no weapon enhancement and 1 = weapon enhancement, and criminal

[3] This includes legal and illegal aliens.

history, coded as 0 = no criminal history and 1 = had criminal history, were used along with race because several studies have found these factors to play a role (Crow & Kunselman, 2009; Everett & Wojtkiewicz, 2002; Spohn & Sample, 2013).

The study is interested in exploring drug offenses and as a result, a variable was included that measured whether the defendant was a drug offender and was coded as 0 = non-drug offender and 1 = drug offender. This variable is used because the study is looking specifically at drug offenders. As has been done in prior studies (Starr, 2014), a variable to explore whether the defendant having a dependent would have an impact on outcomes was included. This variable was coded as 0 = has no dependents and 1 = has at least 1 dependent.

4.1.2.3 Interaction Terms

In addition to the variables described above, an interaction term was generated to represent being both Hispanic and a drug offender. The Hispanic drug offender interaction term was used to determine how the combination of these independent variables would influence the decision to go to trial or take a plea and the odds of a prison sentence being imposed (Tabachnick & Fiddell, 2007). The generation of this variable is explained in the next section. All variables can be seen in Table 4.1on the next page.

Table 4.1: Descriptive Statistics

Variable	Mean	Std.Dev.	Min
Dependent Variables			
Incarcerated	.89	.305	0
Trial vs. Guilty Plea	.02	.157	0
Independent Variables			
Black	.2	.4	0
Hispanic	.52	.499	0
Other Race	.04	.198	0
High School	.50	.5	0
Drug Offender	.30	.462	0
Weapon	.08	.279	0
Female	.14	.352	0
U.S. Citizen	.41	.493	0
Age	36.61	11.503	18
Criminal History	.84	.367	0
Dependents	.65	.474	0
Interaction Term			
Hispanic Drug Offender	.16	.37	0

4.1.3 Data Analysis

In the original dataset, not all of the independent variables were coded as binary. Because of this, some of the independent variables had to be recoded for analysis purposes. In order to get the independent variables for black, Hispanic, and "other race," the original race variable in the dataset was recoded so each race variable could be explored separately. This was necessary because one of the two main independent variables this study analyzes is the impact of race.

The high school variable is derived from the education variable in the original dataset and it was made binary to represent receiving a high school diploma or above versus not receiving a high school diploma. This was done after the education variable was imputed based on race to account for missing data (Tabachnick & Fidell, 2007). The independent variable for drug offenses is derived from the original offense type variable in the dataset, which contains a variety of offenses, and was recoded into drug and non-drug

offenses. For this variable, all three of the drug offenses[4] were included under drug offender. The last modified independent variable is the variable that measures whether the defendant has any dependents. Mean imputation was used to account for the missing data (Tabachnick & Fidell, 2007) and it was recoded to be binary to account for issues with outliers.

The interaction term was created based on race and drug offense. In the first model, the one looking at the decision to go to trial or plea, the only race variable to show statistical significance was the black variable and the drug offender variable was not statistically significant. The preference was to generate an interaction term from two statistically significant variables. However, there is the possibility of generating interaction terms by creating a crossover interaction (see Lundrigan, 2014 for example). A crossover interaction is a statistically significant interaction term generated from two independent variables that were statistically insignificant when run separately but now have statistical significance when combined (see Lundrigan, 2014 for example). This was done to create a Hispanic drug offender variable, which was used in Model 2.

For the incarceration dependent variable, an interaction term was generated using two independent variables that are both statistically significant individually. Hispanic was the only race variable to show statistical significance after running an initial model for this variable. The drug offender variable was also statistically significant in the model, while black was not. As such, a traditional interaction term for being a Hispanic drug offender was generated.

[4] The three drug offenses are (1) trafficking, manufacturing, and importing, (2) communication facilities and (3) simple possession.

For this study, the analysis was done using logistic regression. Logistic regression is appropriate to use for analyzing data when using binary dependent variables (Long, 1997). This method of statistical analysis allowed me to run multiple models using different variables in order to see the impact, if any, the variables examined have on the questions posed in this study. The sample size was narrowed to 2,500 from its original size of 67,000 in order to make data analysis more efficient (Faraway & Augustin, 2018). A random sample of the 67,000 was used to generate the smaller 2,500 sample size. The logistic regression models were run in Stata, a software for statistics and data science. Some cases were dropped after running the logistic regression models bringing the final sample size to 2,364. The final results were displayed using odds ratios and will be discussed in the next chapter.

CHAPTER 5

RESULTS

5.1 Findings

Multiple models were run in an effort to answer the questions posed in this study. The purpose of this study was to answer the following questions:

1. What impact do race and offense type (i.e., drug offense) have on whether a defendant goes to trial as opposed to entering a guilty plea at the federal level?
2. Does the combination of predictor variables (i.e., race and being charged with a drug offense) impact whether a defendant goes to trial as opposed to entering a guilty plea at the federal level?
3. What impact do race and offense type (i.e., drug offense) have on whether a defendant receives a prison sentence at the federal level?
4. Does the combination of predictor variables (i.e., race and being charged with a drug offense) impact whether a defendant will receive a prison sentence at the federal level?

5.1.1 Trial vs. Plea

The first research question explored the impact of race and being charged with a drug offense on whether a defendant goes to trial or takes a plea. The race variables for the research questions used white as the reference category. As stated earlier, the results for the analyses are presented in the form of odds ratios. Those results can be found below in Table 5.1.

Before talking about the logistic regression results in Table 5.1, it is important to discuss the logistic regression run on the first dependent variable. In in the initial model, the only race variable to show statistical significance was the black variable and the drug offender variable was not statistically significant, but as stated before, an interaction term was generated by creating a crossover interaction (see Lundrigan, 2014 for example). This was done for Model 2 and those results are discussed in more detail below.

5.1.1.1 Model 1

As demonstrated in Table 5.1, the only race variable that was statistically significant in this model was the black variable ($p<0.01$). The results of the logistic regression suggest that the odds of a black federal defendant going to trial increase by about 215% when compared to a white defendant at the federal level. This is consistent with prior findings suggesting that black defendants are less likely to take a plea than white defendants (Metcalfe & Chiricos, 2018; Redlich et al., 2017).

There are some unexpected findings in this model. As stated before, these variables were used because of prior research and their findings. A surprising finding here is that being Hispanic was not statistically significant. Gender was also found not to be statistically significant. Both of these findings were unexpected as prior research has found

these characteristics to play significant roles in the criminal justice system time and time again (Doerner, 2012; Spohn & Sample, 2013). Being a drug offender was also not statistically significant in this model. After Model 1 was run, a classification table was produced demonstrating that the model was 97.42% correctly classified.

5.1.1.2 Model 2

As mentioned before, an interaction term for Model 2 was generated by creating a crossover interaction. The second research question is focused on the interaction effect of race and being charged with a drug offense on a defendant deciding to go to trial or take a plea. As such, one interaction term was created for being both Hispanic and a drug offender.

The Hispanic drug offender interaction term, however, was statistically significant ($p<0.05$). The results show that being a Hispanic drug offender increases the odds of going to trial. This is a surprising finding because being Hispanic in and of itself and being a drug offender in and of itself had no statistical significance, but being both Hispanic and a drug offender appears to have a significant impact on a defendant's choice to go to trial. Hispanic defendants being more likely to go to trial, however, is consistent with prior research (Redlich et al., 2017). Both predictor variables were binary and were left out of the model with the interaction term to avoid redundancy (Long & Freese, 2006). After Model 2 was run, a classification table was produced demonstrating that the model was 97.42% correctly classified.

Table 5.1: Logistic Regression Results for Factors Impacting Defendant Going to Trial vs. Taking Guilty Plea (Odds Ratios)

	MODEL 1	MODEL 2
		(Interaction Term)
VARIABLES		
BLACK	3.153***	3.027***
	(1.151)	(0.972)
HISPANIC	1.752	
	(0.735)	
OTHER RACE	1.002	0.964
	(0.773)	(0.726)
HIGH SCHOOL	1.522	1.466
	(0.510)	(0.479)
DRUG OFFENDER	0.843	
	(0.248)	
WEAPON	2.379**	2.211**
	(0.832)	(.763)
FEMALE	0.607	0.625
	(0.255)	(0.262)
U.S. CITIZEN	0.341**	0.391**
	(0.153)	(0.162)
AGE	1.037***	1.039***
	(0.012)	(0.012)
CRIM. HISTORY	0.376***	0.393***
	(0.119)	(0.124)
DEPENDENTS	1.084	1.080
	(0.302)	(0.301)
HISP DRUG OFF		2.322**
		(0.926)
N	2,364	2,364

Odds Ratios
Standard Errors in Parentheses.
***p<0.01, **p<.05, *p<0.1

5.1.2 Prison Sentence

The second dependent variable explored was concerned with what impact race and being charged with a drug offense have on whether a defendant receives a prison sentence at the federal level. The results of the models examining the defendant's race and offense type (i.e., drug offense) and whether a prison sentence is received can be found in Table 5.2 starting with Model 3. This model is similar to Model 1 in that no interaction terms were included and the same independent variables were used. Model 4 uses the interaction term that looks at being both Hispanic and a drug offender. Due to the use two binary predictors to generate the interaction term, the Hispanic and drug offender variables were left out to prevent redundancy (Long & Freese, 2006). Model 4 has only one interaction term.

5.1.2.1 Model 3

In this model, unlike in Model 1, being Hispanic was statistically significant ($p<0.01$). The results for this independent variable suggest that the odds of a Hispanic defendant receiving a prison sentence increase by about 109% when compared to white defendants at the federal level. This was the only race variable that was statistically significant in the logistic regression analysis. The fact that being black was not statistically significant was a surprising result in this analysis because prior research has shown that being black can play an important factor especially since some of these prior studies have demonstrated that black defendants end up being punished differently than their counterparts (Johnson, 2003; Kautt & Spohn, 2002; Spohn & Sample, 2013).

The drug offender variable was also statistically significant ($p<0.01$). The model suggests that the odds of a drug offender receiving a prison sentence are 106% higher than

for a non-drug offender. After this model was run, a classification table was produced demonstrating that Model 3 was 91.16% correctly classified. Since both the Hispanic and drug offender variables were statistically significant, an interaction term for being both Hispanic and a drug offender was created and included in Model 4.

5.1.2.2 Model 4

For this model, the Hispanic and drug offender variables were excluded because of the inclusion of the interaction term. The Hispanic drug offender interaction term was statistically significant ($p<0.01$). The results showed that being a Hispanic drug offender increases the odds of receiving a prison sentence. While not a surprising result since both characteristics were statistically significant and both increased the odds of receiving a prison sentence, being both Hispanic and a drug offender appears to put a defendant at even more of a disadvantage. The individual Hispanic and drug offender variables were removed from this model in order to avoid redundancy in the model (Long & Freese, 2006). After this model was run, a classification table was produced demonstrating that Model 4 was 90.99% correctly classified. Table 5.2 can be seen on the next page.

Table 5.2: Logistic Regression Results for Factors Impacting Defendant's Receipt of Prison Sentence (Odds Ratios)

	MODEL 3	MODEL 4
		(Interaction Term)
VARIABLES		
BLACK	1.285	1.100
	(0.264)	(0.212)
HISPANIC	2.092***	
	(0.499)	
OTHER RACE	1.111	.945
	(0.368)	(0.303)
HIGH SCHOOL	0.669*	0.613**
	(0.138)	(0.124)
DRUG OFFENDER	2.061***	
	(0.397)	
WEAPON	7.567***	8.420***
	(4.514)	(5.025)
FEMALE	0.230***	0.244***
	(0.039)	(0.041)
U.S. CITIZEN	4.598***	5.914***
	(1.369)	(1.625)
AGE	0.984**	0.981***
	(0.007)	(0.006)
CRIM. HISTORY	2.422***	2.548***
	(0.435)	(0.454)
DEPENDENTS	0.583***	0.604***
	(0.099)	(0.101)
HISP DRUG OFF		3.120***
		(1.053)
N	2,364	2,364

Odds Ratios
Standard Errors in Parentheses.
***p<0.01, **p<.05, *p<0.1

CHAPTER 6

DISCUSSION AND CONCLUSION

The goal of this study was to explore four things. The first being whether race and offense type (i.e., being charged with a drug offense) impact whether a defendant goes to trial or takes a plea at the federal level. Second, whether the combined effect of race and offense type (i.e., being charged with a drug offense) impacts whether a defendant goes to trial or takes a plea at the federal level. Third, whether race and offense type (i.e., being charged with a drug offense) impact whether a defendant receives a prison sentence. Fourth, whether the combined effect of race and offense type (i.e., being charged with a drug offense) impacts whether a defendant receives a prison sentence.

The first dependent variable studied looked at the decision to go to trial instead of taking a plea. The study found that the odds of black defendants going to trial are dramatically higher than their white counterparts. The increased likelihood of a black defendant going to trial is consistent with prior research (Metcalfe & Chiricos, 2018; Redlich et al., 2017). Metcalfe and Chiricos (2018) hypothesized that the increased likelihood to go to trial could be because black defendants are less likely to trust the criminal justice system than white defendants. The finding that gender and being Hispanic were not statistically significant was surprising as other research has found defendant characteristics such as these to be relevant (Doerner, 2012; Spohn & Sample, 2013). These findings may also be a result of the data itself.

An interaction term was created and used in the analysis for Model 2. The results revealed that Hispanic drug offenders are significantly more likely to go to trial, a finding consistent with prior research (Redlich et al., 2017). Of the research that exists on plea bargains and race, it was interesting to find that being a black drug offender had no statistical significance[5] as this goes against what has been found in other studies (Metcalfe & Chiricos, 2018; Redlich et al., 2017).

The logistic regression analysis on the second dependent variable contained two models and was geared to finding out what the effect of race and being charged with a drug offense is on whether a defendant receives a prison sentence at the federal level. Model 3 showed that merely being a Hispanic defendant dramatically increased the odds of receiving a prison sentence and that just being a drug offender made the defendant significantly more likely to receive a prison sentence. The finding of an increased likelihood of a prison sentence for a Hispanic drug offender has been found in a previous study (Everett & Wojtkiewicz, 2002). The fact that the black variable appeared as statistically insignificant in Models 3 and 4 is surprising. Various studies have found that being black plays a role in this process (Johnson, 2003; Kautt & Spohn, 2002; Spohn & Sample, 2013).

In order to answer the fourth research question, these two defendant characteristics were used to generate an interaction term as shown in Model 4 in Table 5.2, which provided some insight on this issue as it relates to Hispanic drug offenders. The data in that model demonstrated that the odds of a Hispanic drug offender receiving a prison sentence

[5] This interaction term was generated despite one variable being statistically significant while the other was not in order to examine any potential impact. When the model with the black drug offender interaction term was run, however, it was dropped from the model leaving nothing to interpret, which is why there is no model with that variable included in the study.

increased significantly. In fact, the odds almost doubled for Hispanic drug offenders as compared to white drug offenders. Minorities receiving harsher sentences is established in prior research and this finding is consistent with that (Albonetti, 1997; Spohn & Sample, 2013).

This study sought to fill in the holes of prior research with the goal of exploring race and being charged with a drug offense and the interaction effect of race and being charged with a drug offense on the decision to plea or go to trial at the federal level. Furthermore, the study looked at race and being charged with a drug offense and the interaction effect of race and being charged with a drug offense on the imposition of a prison sentence at the federal level. Few studies have been conducted on the decision to plea or go to trial in the federal system. Of the research on plea bargains, most do not look at the interaction of the previously mentioned independent variables. When it comes to prison sentences, most research looks at disparity in terms of length instead of whether a defendant will receive one and at the same time, few studies have had the goal of exploring that within the terms of the interaction of the previously mentioned independent variables.

This study helped fill in those gaps. The results showed that black defendants at the federal level are significantly less likely to take a plea than white defendants. Where the existing research tended to explore this from the state level, this study fills a gap by doing so at the federal level. The study also provided information on Hispanic drug offenders and receiving a prison sentence. While research may have looked at race and gender together, few have examined race and offense type or whether a prison sentence is imposed. Another surprising finding in this analysis was that across all the models exploring the defendant's receipt of a prison sentence, neither being black nor being a black drug offender were

statistically significant. This is not consistent with prior research in the field although that research is not necessarily about the receipt of a prison sentence (Johnson, 2003; Kautt & Spohn, 2002; Spohn & Sample, 2013). For example, Spohn and Sample (2013) found that black drug offenders in federal courts receive harsher prison sentences than both of their white and Hispanic counterparts. The findings of this study help provide a clearer picture of federal drug offenders in the criminal justice system, but there is room for the picture to be expanded.

While contributing to the literature on outcomes at the federal level, this study is not without its limitations. First, the data used comes from only one year, 2016, meaning results may not look the same for a different year, if multiple years were examined, or if an entirely different dataset was used. Second, due to time constraints, collecting original data or requesting data from multiple agencies to build a larger dataset was not feasible and as a result, this public use dataset was used for the analysis. Future research can further explore factors contributing to defendants going to trial versus taking a guilty plea, possibly using additional or different predictors than were used in this study. There is also room to expand on the findings for the second dependent variable in that the variable for Hispanic defendants was statistically significant but the variable for black defendants was not. The data used in future research can be pulled from a different source or compiled from a variety of sources. It would be interesting to see the effect of the same race as drug offenders on both dependent variables. Future research can help address the unanswered questions here.

A combination of race and gender and being a drug offender can also be used to understand the impact on pleading out versus going to trial and on receiving a prison sentence. Further research could also look at different federal offense types to determine

what the outcomes look like for these two dependent variables. There is also the possibility of researching how uniform the findings of this study are by looking at these decisions within each federal district. Furthermore, understanding how often the decision to go to trial is related to an unfavorable plea deal being offered could impact the findings of this study for that dependent variable.

One common thread between the analyses of these two dependent variables is the result that being a Hispanic drug offender was statistically significant for predicting the likelihood of going to trial instead of taking a plea and for predicting the imposition of a prison sentence while being a black drug offender was not. This finding truly goes against the grain in terms of the prior research on these topics and in the field in general. This could be an anomaly, a result of the dataset itself, the year from which the data comes, or the specific offense looked at but we cannot know without more research diving into these areas. Because of that, it is clear that more research needs to be done in these areas to better understand what is happening in federal courts.

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BIOGRAPHICAL INFORMATION

Matthew Perez McCurdy will earn his Honors Bachelor of Arts in Criminology and Criminal Justice after three years in May 2020 and graduate summa cum laude with a 4.0 GPA. He was named on the College of Liberal Arts Dean's List each semester while at UT Arlington. During his time in undergrad, he served as a Supreme Court Justice for Student Government and was a member of the Society of Criminal Justice Students, the National Society of Collegiate Scholars, the Golden Key International Honor Society, the Alpha Lambda Delta Honor Society, the National Society of Academic Excellence, the Pre-Law Society, the Honors College and the Pi Kappa Alpha Fraternity. Most notably, he was on the UT Arlington Mock Trial Team and served as captain his last year when he led the team to its very first tournament victory at the Third Annual Kangaroo Brawl in Sherman, Texas. He also volunteered as an assistant coach for his high school mock trial team while in undergrad and will continue to do so in the future. After debating between the University of Texas at Austin School of Law and Texas A&M University School of Law, Matthew decided to earn his Juris Doctorate at A&M starting in Fall 2020.