What Happens When Investigating A Crime Takes Up Too Much Time? An Examination of How Optimal Law Enforcement Theory Impacts Sentencing

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Abstract: Previous research finds that variations in sentencing outcomes still exist among similarly situated individuals, especially among drug offenders. While courtroom actors are often the focus of sentencing disparities, law enforcement officers are rarely studied. This is problematic because criminological research has yet to explore whether law enforcement could influence sentencing decisions. The current study aims to discover the influence of a previously ignored legal variable, investigation workload, on sentence length and directly examine an untested criminal justice theory, Optimal Law Enforcement Theory. This study will explore these overlooked concepts with a rare dataset that contains information on individuals convicted of prescription drug trafficking in Florida from 2011-2013. We find that investigation workload does influence sentencing, with offenders convicted from a high police workload being significantly more likely to experience longer sentences than offenders convicted from a low investigation workload. Limitations and policy implications are also discussed.

Keywords: Courtroom Actors, Investigation Workload, Law Enforcement, Optimal Law Enforcement, Sentencing.

INTRODUCTION

The United States criminal justice system has implemented numerous policies to reduce sentencing disparities across similarly situated offenders, often focusing on the judge or other courtroom actors. To reduce the amount of variation in sentencing outcomes, state sentencing commissions have implemented sentencing guidelines or scores to help reduce the amount of discretion used in sentencing. However, previous research finds that there remains variation among sentencing outcomes, especially among drug offenders, in adjudication. The debate among prior literature regarding variation in sentencing outcomes often focuses on how extra-legal factors influence later decision points, rather than how legal factors influence courtroom decisions. These studies have found that legal variables, such as prior arrests and prison commitments, lead to longer sentences (King 2014; Kutateladze and Lawson 2016). Extra-legal factors, such as race, have also been found to play a significant role in sentencing decisions (Spohn 2009); however, they often need to interact with legal variables to produce their effects (Van Wingerden, Van Wilsem, and Johnson 2016).

In regards to sentencing, research tends to focus on the influence of courtroom actors, such as the judge and the prosecutor, but often ignores the importance of how other criminal justice actors may influence courtroom decisions. One key actor that has been largely overlooked in previous sentencing literature is law enforcement officers. This is problematic because an offender's sentence is decided through a collaborative process, involving interactions with both courtroom actors and law enforcement actors. In fact, law enforcement is essential to criminal cases because these cases would not be brought to the attention of courtroom actors without an arrest (Spohn 2009). Thus, if it were not for law enforcement initiating contact with offenders, the following steps in the criminal justice system would be irrelevant.

Law enforcement efforts may be especially important to sentencing research as it is possible that legal variables related to the initial interaction offenders have with law enforcement could influence later decision points in the criminal justice process. For example, law enforcement officers use a variety of methods to apprehend individuals who are violating criminal laws (i.e., traffic stops, reverse busts, special investigations, etc.) and this variation in how an offender is apprehended may influence the variation in sentencing outcomes. Specifically, it is possible that the modes of apprehension that require a greater investigation workload would result in longer sentences (Garoupa 1997). Unfortunately, research has not systematically tested whether variables related to law enforcement efforts, such as high investigation workload, influence sentencing outcomes. If investigation workload does in fact influence

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sentencing, then decisions made in the criminal justice system involves understanding the collaborative process across all criminal justice actors.

The current study aims to address this major gap in sentencing literature by directly testing a previously ignored theory assessing how law enforcement resources influence later decision points within the criminal justice system. While there are a plethora of studies that explore sentencing decisions, the current study is unique to criminology because it shifts attention away from courtroom actors and focuses on testing Optimal Law Enforcement Theory, and how law enforcement contacts can influence sentencing outcomes. To test Optimal Law Enforcement Theory, we use a unique dataset of individuals convicted of trafficking the prescription drugs oxycodone and/or hydrocodone in Florida from 2011 to 2013. This dataset contains rare criminal records that include a variety of legal variables, as well as extra-legal variables for all offenders. If investigation workload does impact sentence length it would demonstrate that all criminal justice actors influence sentencing decisions, not just courtroom actors, which would greatly contribute to current sentencing literature (Kim, Spohn, and Hedberg 2015). By examining the potential influence of law enforcement officers, this study hopes to bring attention to a largely overlooked theory, which suggests that police influence does not end after arrest, as well as shed light on the previously ignored influence of criminal justice actors not directly involved in the adjudication process. Additionally, from an economics approach, this study contributes a new multidisciplinary methodology to understanding sentencing outcomes.

While it is critical to examine how factors related to the apprehension of offenders contribute to their sentence for all types of crime, it is especially important for drug related cases because they experience wider variation in sentencing outcomes than other types of crime (Warren, Chiricos, and Bales 2012). Additionally, focusing on drug traffickers is especially important because of the influence these types of drug crimes have on public policy. This need is highlighted for prescription drug trafficking offenders as they constitute one of the largest categories of sentenced cases and often account for the widest variation in sentencing outcomes (Lynch and Omori 2014). Thus, by focusing on prescription drug traffickers, this study can address a large number of cases sentenced in the criminal justice system that experience a high level of variation among sentencing outcomes. Furthermore, Florida has enacted “truth-in-sentencing” laws, which require offenders to complete 85 percent of their assigned sentence, ensuring the need to determine if there are equal applications of law across offenders (Sakala and King 2016).

OPTIMAL LAW ENFORCEMENT THEORY

Optimal law enforcement theory states that individuals respond to deterrence incentives, which are created by the criminal justice system, and theses incentives are often accomplished through increased arrests and convictions (Garoupa 1997). These increased arrests and convictions are obtained by using additional resources, with the belief that punishment or incarceration is the best way to reduce the costs and amount of crime. Thus, as more resources are expended to apprehend offenders, the sanctions for offenders who depleted more resources throughout the apprehension process will likely be more severe than the sanctions for offenders who drained fewer resources (Garoupa 1997). This theory is consistent with plea bargaining literature which finds that utilization of court resources, through a trial process, often results in harsher sentences, while those who seize the opportunity of a plea bargain often experience lighter sentencing than their counterparts (Bibas 2004; Brereton and Casper 1981; Scott and Stuntz 1992).

Optimal Law Enforcement Theory suggests that the amount of resources utilized by law enforcement actors will influence later decision points in the criminal justice system. Previously ignored in the sentencing literature, this theory implies that criminal justice decisions can be examined from an economical approach to better understand how economic units can influence sentencing outcomes. It argues that there is interdependence between separate parts of the decision-making process and that any change in the conditions of one part of the system will result in repercussions throughout the whole system (Johnson 1968). Thus, examining the criminal justice system through the lenses of a cost-benefit analysis shows that the costs must not exceed the benefits for any decision and that decisions are often evaluated in terms of their consequences (Drèze and Stern 1987). However, these economic approaches to decision-making are rarely used to describe the criminal justice system, are typically only seen in the private sector, and are referring only to monetary gains. Optimal law enforcement theory argues that while law enforcement and the adjudication process are public entities, they are constrained by this same decision-making process

found in the private sector. It suggests that public entities, which include the criminal justice system, employ the same economical approach and cost-benefit analyses by focusing on social costs and benefits, instead of focusing solely on monetary gains (Stewart 1975).

Vital to the sentencing literature,, optimal law enforcement theory argues that spending more time, money, and resources on apprehending an offender needs to produce social benefits in order for this decision to be favorable. For example, law enforcement officials cannot simply levy a fine or a minor form of punishment as their benefit to exerting an increased number of resources, thus, law enforcement actors may increase social benefits by directly or indirectly recommending an increase in punishment as means for reducing future costs. Optimal law enforcement theory distinguishes between specific and general law enforcement efforts. When law enforcement effort is specific (i.e. special investigations, reverse busts, and under-cover buys), optimal sanctions (punishment) will be extreme for all acts (Garoupa 1997). This is due to the increased financial and physical costs of these types of law enforcement (Kutateladze and Lawson 2016). On the other hand, when law enforcement effort is general (i.e. traffic stops, DUI checkpoints, etc.), the optimal sanctions rise with the harmfulness of the act (Garoupa 1997). This type of law enforcement uses fewer resources to deter or apprehend any one offender, thus optimal sanctions are saved for higher levels of deviancy (Garoupa 1997). As a result, optimal law enforcement theory suggests that the more time, money, and resources law enforcement expend in apprehending an offender, the more punishment is required to be severe. This theory would suggest that a variable such as high investigation workload is crucial to explore and would positively influence sentence length.

LITERATURE REVIEW

Optimal Law Enforcement Theory

Optimal law enforcement theory takes an economic approach to addressing crime and punishment in society, thus there are currently no empirical studies to suggest the importance of law enforcement officers in the sentencing process (Bebchuk and Kaplow 1993; Easterbrook 1983; Stigler 1975). Research that exists on this topic, centers on hypothetical and theoretical tests between enforcement efforts and sanction severity (Garoupa 1997). Additionally, prior studies have concluded that individuals who report their crime to law enforcement, which reduces law enforcement effort, may receive lighter sanctions (Garoupa 1997). The current study will be the first empirical test of this theory.

Easterbrook (1983) presents a hypothetical argument using the concept of price discrimination to suggest that punishment should match the offender and not only the offense committed. Price discrimination is part of the optimal punishment of offenders because sanctions should be targeted to those that they provided the biggest deterrent for (Easterbrook 1983). Thus, judges' discretion in sentencing means imposing discriminating "prices" to improve the efficiency of the criminal process, but it would be impossible without information about the offender and this information is what leads to variation between cases (Easterbrook 1983). However, Easterbrook (1983) only examined price discrimination using hypothetical scenarios without employing empirical tests to measure whether it is relevant to real world practices.

Bebchuk and Kaplow (1993) suggest that when offenders force law enforcement to expend a large amount of enforcement resources on their apprehension, the government will use optimal sanctions upon these specific offenders. If by chance the government is unable to observe the difficulty in apprehending offenders, either before or after expending enforcement efforts, the sanction may be less than optimal for the offender (Bebchuk and Kaplow 1993). However, because resources needed for enforcement efforts are limited, law enforcement must consider appropriate use of resources and later criminal justice decision points to account for the expenditure of enforcement resources. Stigler (1975) argues that police would be able to enforce the law across all offenders if they were given enough resources; however, this type of enforcement would be expensive and fundamentally unachievable. Thus, law enforcement needs to rationally choose what enforcement efforts should be used by focusing on cost limitation and cost-benefit analysis in apprehending offenders.

Legal Factors & Sentencing Outcomes

The current study is the first to empirically test whether the investigation workload of law enforcement officers affects sentence length. If this factor is deemed to have importance at the sentencing stage, it would

greatly contribute to the literature on the effects of legal factors on sentencing outcomes. Legal factors are variables that are related to the offender and the offense, such as, prior record, use of a weapon, offense type, arrest history, and prior prison commitments (Feldmeyer and Ulmer 2010; Kutateladze and Lawson 2016).

Previous empirical studies consistently validate the influence of legal variables on criminal justice outcomes, from the decision to arrest, to incarcerate, and sentence length. For example, offenders with more serious prior records and offense types are more likely to be sentenced to prison rather than jail and have longer sentences (Iles, Bumphus, and Zebel 2011; King 2014). Furthermore, prior arrest records have also been shown to play a significant role in the determination of bail, plea bargaining agreements, and case outcomes (Kutateladze and Lawson 2016). Due to a heavy reliance on sentencing guidelines, which often rely on arrest history and current charges to shape sentencing decisions, criminologists need to further explore the influence of arrest characteristics on sentencing outcomes (Kutateladze and Lawson 2016).

It is important to note that sentencing research has found that drug related crimes experience wider variation in sentencing outcomes, especially compared to violent crimes (Warren, *et al*. 2012). Unlike legal variables, extra-legal factors are not related to the offense, but rather are directly related to the offender (i.e. race, gender, age) (Feldmeyer and Ulmer 2010). Studies have found that extra-legal factors, such as race, result in harsher sentencing outcomes (Albonetti 1997; Mustard 2001; Kramer and Ulmer 1996; Steffensmeier, Ulmer, and Kramer 1998; Ulmer and Johnson 2004). For example, black and Hispanic individuals charged with drug offenses experience harsher sentencing outcomes than whites (Brennan and Spohn 2008; Crawford, Chiricos, and Kleck 1998; Mustard 2001, Steffensmeier and Demuth 2000). Although blacks only make up 14 percent of the drug using population, they constitute 37 percent of those arrested for drug crimes and comprise 56 percent of state inmates serving time for drug offenses (Neill 2014). Since the extra-legal factor of race seems to affect sentencing more for drug related cases than for other types of crime, this study examines whether interactions between race and investigation workload can explain some of these variations for drug traffickers.

METHODS

The focus of the current study is to directly test a previously ignored theory, optimal law enforcement theory, by using an untested legal variable, investigation workload. By determining whether high investigation workload predicts an increase in sentence length, this study will fill a major gap in the sentencing literature. Also, focusing on prescription drug traffickers can help explain why there is widespread variation found in drug related crimes (Warren, *et al*. 2010). Additionally, because prior literature suggests that race affects sentencing outcomes for drug offenders (Albonetti 1997; Mustard 2001; Kramer and Ulmer 1996; Steffensmeier, *et al*.1998; Ulmer and Johnson 2004), this study also tests whether investigation workload interacts with race to predict sentence length. In addition to investigation workload, a variety of unique legal variables pertinent to sentencing are included in this study.

Data

The current study is comprised of offenders convicted of trafficking oxycodone and hydrocodone. The present dataset is a combination of rare criminal records that include a variety of legal and extra-legal variables. The sample consists of every prescription drug trafficker in the 20 counties in Florida that report the highest numbers of conviction, which produced a sample size of 1,267. All of the individuals included in the sample are convicted offenders who were sentenced to prison in Florida from 2011 to 2013 for a drug trafficking charge of oxycodone and/or hydrocodone. These records were obtained through a collaborated effort from The Florida Department of Law Enforcement (FDLE), The Florida Sherriff's Association (FSA), and The Comprehensive Case Information System, and consist of police affidavits, official criminal records, and official court records. All records were then organized and compiled by the FDLE. These data are uniquely capable of directly testing the optimal law enforcement theory because it was created using information from police affidavits about the apprehension of the offender prior to conviction.

Dependent Variable

Sentence Length

The dependent variable for this study is sentence length, which is measured in months. This measurement is consistent with previous literature (Iles, *et al*. 2011). Coding sentence length in months

allows for the examination of minuet differences in sentencing outcomes, which would be unobservable using larger sentence length measurements, such as years. Given that all individuals included in the sample were convicted and sentenced to prison in Florida, the current study examines the length of the punishment for convicted prescription drug traffickers to determine if a longer sentence length is related to apprehension workloads by law enforcement officers.

Independent Variables

Investigation Workload

A dichotomous variable that represents whether law enforcement officers used a high or low investigation workload to apprehend an offender. High investigation workload was coded as "1" and low investigation workload was coded as "0". By dichotomizing investigation workload into high and low categories, it allows the current study to examine various types of police investigations and not spread the data too thin, as several investigation methods only had a few offenders in them. Law enforcement efforts were determined to be either high or low investigation workload based on the amount of time, energy, and resources used to obtain an arrest.

The following efforts were considered high investigation workload: informants, reverse busts, search warrants, special investigations, and surveillance. Each of these apprehension methods requires more resources and time to apprehend offenders as compared to apprehension efforts in low investigation workload. Informants are considered a high investigation workload given that law enforcement officers must spend considerable time with these individuals, as well as the amount of resources law enforcement must employ to ensure that informants remain safe. A reverse bust is considered a high investigation workload due to the time, energy, and resources law enforcement must expel to protect undercover police officers. Law enforcement must ensure that there is enough back up to protect the undercover officer, as well as a vehicle to arrest the undercover officer while they play the role of drug dealer. Search warrants are considered high investigation workload because of the time, energy, and resources that law enforcement must use to obtain a legal search warrant based on probable cause and in convincing a judge that there is a high likelihood that prescription drug trafficking is occurring at said location. Special investigations are also considered high investigation workload because they are specialized units within police departments, which require more training than the average street policing. That is, these units are designed to gather intelligence, conduct investigations, and apprehend individuals who are violating the law under which these units operate. Lastly, surveillance is considered a high investigation workload because it requires law enforcement to expend additional resources and time by physically or electronically observing people and locations. In addition, law enforcement must be covert in surveillance techniques as not to compromise future investigations, informants, or undercover officers, which requires them to be tactical in the application resulting in a longer, more rigorous workload.

The efforts included under low investigation workload were: traffic stops, tips, response to calls, 911 calls, prescription fraud, possession, selling to non-law enforcement officers, parcel inspections, doctor shopping, and armed robbery and/or burglary. Low investigation workload efforts are categorized as such because the police are engaged in a different activity prior to apprehending the offender for prescription drug trafficking. Traffic stops, parcel inspections, possession, selling to non-law enforcement officers, and armed robbery and/or burglary are considered low investigation workload because the police are not employing a significant amount of time, resources, or energy in apprehending prescription drug traffickers. Rather, the charge of prescription drug trafficking came as a result of being stopped for a different crime, or inspection. Tips, response to calls, and 911 calls are also included under low investigation workload because law enforcement did not have to use additional resources to obtain information about a prescription drug trafficker. Individuals who call 911 dispatch with information about prescription drug traffickers inform law enforcement where to go and what crime is being committed, with the majority of police departments' policy requiring that an officer must investigate each 911 call to complete the process and ensure that public safety is not in harm. Thus, these do not take much time, energy, or resources on the part of law enforcement to obtain an arrest. Lastly, doctor shopping and prescription fraud are considered low investigation workload because all pharmacies maintain records of any and all prescriptions that are filled. This includes information about patient, type of drug, physician that prescribed the drug, etc. As a result, the Drug Enforcement Agency (DEA) maintains records of all information received by pharmacies and

then identifies individuals who are using several doctors to obtain the same prescription (i.e., doctor shopping) or those who are committing prescription fraud. While these may seem like they might take time, energy, and resources from law enforcement, the comprehensive dataset collected by the DEA allows for systematic reviews of all prescription drugs making it easy to identify who may be trafficking prescription drugs.

Amount Trafficked

According to Florida Statute Section 893.135, drug trafficking charges are based on weight (in grams) to determine the level of seriousness of the drug trafficking charge. Thus, it is important to examine the effects of this variable because of its influence on sentencing outcomes. Consistent with Florida statutes for sentencing of drug trafficking, the amount an offender trafficked was categorized into three tiers, based on the weight (total grams) of pills (oxycodone and hydrocodone) in the offender's possession at the time of arrest. Tier 1 is the lowest tier and represents a charge of trafficking in oxycodone and/or hydrocodone at under 14 grams. Tier 2 is the second highest tier level, representing a charge of trafficking in oxycodone and/or hydrocodone at 14 grams < 28 grams. Tier 3 is the highest tier level, representing a charge of trafficking in oxycodone and hydrocodone at 28 grams < 300 kilograms. Amount trafficked includes three dichotomous variables (Tier <14g, Tier 14g<28g, and Tier 28g<300kg) indicating whether the offender trafficked at this level (no = 0 and yes = 1). Tier 1 was used as the omitted category. Controlling for this is crucial because the tier an offender is charged under is a measure of the seriousness or severity of the crime used by prosecutors and judges during the adjudication process. Prior literature shows that the severity of an offense is one of the most consistent predictors of sentence length (Iles, *et al*. 2011; King 2014).

Pill Type

For an offender to be included in this study, they must have been arrested for drug trafficking with either oxycodone and/or hydrocodone. This variable indicates whether an offender was arrested for oxycodone (coded as "1") or hydrocodone (coded as "0").

Number of other Drugs

This is a continuous variable, which represents the number of additional drugs found in the offender's possession at the time of arrest. Due to the small number of offender's with more than 4 other drugs in their possession at the time of arrest, this variable was truncated at 4 or more other drugs.

Number of Arrest Charges

This is a continuous variable, which represents the total number of charges an offender received at the time of their arrest. Due to the small number of offender's with more than 5 arrest charges, this variable was truncated at 5 or more total charges.

Upward Departures and Downward Departures

Due to mandatory minimums in Florida, it is important to include information on upward and downward departures from sentencing guidelines, which are based on the weight of the drug. Both variables are dichotomous, and use "1" to indicate that there was a departure and "0" to indicate no departure. This is important to control for because the variation in sentence length could be due to the departures that judges use in sentencing across similarly situated offenders. Thus, offenders who did not receive either an upward or downward departure in their sentence length were sentenced within the guidelines that are used in Florida.

Weapon Charge

Weapon charge is a dichotomous variable, which represents whether the offender received a weapon charge at the time of arrest. A "1" indicates that the offender received a weapons charge, while a "0" indicates that the offender did not receive a weapons charge.

Prior Arrests

Prior arrests are broken down into two continuous variables; drug arrests and violent arrests. Prior drug arrests indicate the number of drug arrests the offender has, while prior violent arrests consist of the number of violent arrests the offender has.

Prior Prison Commitments

Prior prison commitments is coded as each time an offender has been sent to prison in Florida, regardless of the offense, and is truncated at 5 or more due to the small number of offenders that have received more than 5 prior prison commitments.

Race

Race is dummy coded into three dichotomous variables, white, black, and Hispanic. All the variables use "1" to indicate that an offender is of that race, while

"0" indicates that they are not. White was used as the omitted category.

Age

Age is measured as a continuous variable and represents the age of the offender at the time of the arrest.

Male

Gender is a dichotomous variable, which codes males as "1" and females as "0".

Analytic Strategy

The 1,267 individuals in this study are nested within the top 20 counties in Florida for prescription drug trafficking. Because individuals are nested within the same county, they may be more similar to one another than individuals in other counties and may not provide independent estimates (Stewart and Simons 2006). To account for this, the current study uses random effects models to estimate the influence of investigation workload on sentence length for those convicted of trafficking oxycodone and hydrocodone in Florida (2011-2013). This type of model is used to control for the clustering effects of individuals convicted within the same counties. First, descriptive statistics are presented. Second, a random effects linear regression is performed to determine the influence of investigation workload on sentence length. Lastly, we examine a potential moderating effect of race on investigation workload and sentence length.

RESULTS

First, this study presents descriptive statistics. Table **1** shows that the average sentence length for prescription drug traffickers in Florida is about 64 months in prison, with the minimum sentence for these offenders being 12 months and the maximum sentence length being 480 months. The majority of the offenders were arrested using a high investigation workload, their

Table 1: Descriptive Statistics

	Mean	Standard Deviation.	Minimum	Max	N
Dependent Variable					
Sentence Length (*in months*)	63.74	59.09	12.09	480.31	1,267
High Investigation Workload	0.71	0.45	0	1	1,250
Legal Factors					
Tier <14g	0.70	0.46	0	1	1,267
Tier 14g<28g	0.15	0.36	0	1	1,267
Tier 28g<300kg	0.15	0.35	0	1	1,267
Pill Type	0.78	0.41	0	1	1,266
Number of Other Drugs	0.60	1.07	0	4	1,267
Number of Additional Arrest Charges	1.46	1.60	0	5	1,267
Upward Departure of Pill Weight	0.02	0.14	0	1	1,267
Downward Departure of Pill Weight	0.14	0.35	0	1	1,267
Weapon Charge	0.03	0.17	0	1	1,267
Prior Drug Arrest	7.00	7.02	0	68	1,267
Prior Violent Arrests	0.78	1.55	0	15	1,267
Prior FL Prison Commitments	1.52	1.02	1	5	1,267
Extra-Legal Factors					
Black	0.31	0.46	0	1	1,267
Hispanic	0.09	0.29	0	1	1,267
White	0.60	0.49	0	1	1,267
Age at Arrest	35.08	11.48	16.83	76.35	1,267
Male	0.78	0.42	0	1	1,267

Notes: N = Sample Size.

primary offense was within the first tier (i.e. under 14 grams), and were arrested with oxycodone. In addition, the individuals in the sample had an average of 7 prior drug arrests, less than 1 prior violent arrest, and 1.5 prior Florida prison commitments. Lastly, the majority of the sample is male, White, and had an average age at arrest of 35 years.[1]

Table 2: Random-Effects Model of Investigation Workload on Sentence Length

	Coeff.	S.E.
High Investigation Workload	6.78*	3.51
Legal Factors		
Tier 14g<28g	41.88***	4.31
Tier 28g<300kg	62.71***	4.59
Pill Type	2.24	4.01
Number of Other Drugs	0.54	1.87
Number of Additional Arrest Charges	3.17**	1.33
Upward Departure of Pill Weight	-1.43	10.77
Downward Departure of Pill Weight	13.56**	4.47
Weapon Charge	5.02	9.21
Prior Drug Arrests	0.50*	0.26
Prior Violent Arrests	4.50***	1.10
Prior FL Prison Commitments	5.03**	1.84
Extra Legal Factors		
Black	3.24	3.64
Hispanic	-2.23	5.21
Age at Arrest	0.03	0.14
Male	8.59*	3.70
Intercept	17.05*	7.72
R^2	0.21	

Notes: N=1,249; Coeff. = Coefficient; S.E. = Standard Error.

Table **2** presents the findings from the random effects model. The results indicate that a high investigation workload by the police has a positive and significant effect on sentence length. In addition, the two highest tier levels for an offender's primary offense (e.g., tier 14g<28g and tier 28g<300kg) both have a positive, statistically significant relationship with sentence length for prescription drug trafficking in Florida. This shows that as offenders enter a higher weight tier, they are more likely to receive a longer sentence than those in the lowest tier. Also, offenders with more additional charges at arrest received significantly longer sentences. Downward departure of pill weight guidelines in sentencing decisions by judges shows a positive and significant relationship with sentence length. Lastly, prior drug arrests, prior violent arrests, and prior commitments to a Florida prison all have a positive, statistically significant relationship with sentence length.

Extra-legal variables do not appear to exert much of an effect on sentence length. Race (i.e. black and Hispanic) and age at arrest do not significantly affect sentence length for prescription drug trafficking in Florida. Gender does have a positive, statistically significant relationship with sentence length for prescription drug trafficking.

Table **3** explores the conditioning effect that race has on sentence length for prescription drug traffickers in Florida. Table **3** suggests that the investigation workload does not significantly influence sentence length for prescription drug traffickers based on race. However, race does differentially affect several other legal variables.

For Whites and Blacks there is a positive, statistically significant relationship between the second tier level (14g<28g) of their primary offense and sentence length. It is important to note that this moderating effect was stronger for Black offenders than White offenders, as seen from their 54-month sentence increase compared to a 36-month increase for Whites. All three races conditioned the effect of the highest tier level (28g<300kg) on sentence length showing a positive, statistically significant relationship on sentence length. As with the second tier level, the moderating effects seen for the highest tier level are strongest for Black offenders. White and Black also conditions the effect of the downward departure of pill weight in sentencing decisions on sentence length. Again, there appears to be greater moderation for Black offenders than White offenders. Prior violent arrest is conditioned by all three races, resulting in positive and statistically significant relationships between prior violent arrests and sentence length. Unlike tier levels and downward departures, this legal factor shows the greatest moderation for Hispanics. Additionally, there were significant moderating effects for White offenders for total additional charges, prior drug arrests, and prior Florida prison commitments. Additionally, the results show that White and Black

[1]While multicollinearity may bias multivariate modeling analyses (Allison, 1999), there was no issue of multicollinearity biasing the estimates presented in Tables 2 and 3.

Table 3: Moderating Effects of Race on Sentence Length for Prescription Drug Traffickers in Florida

	White	Black	Hispanic
	Coeff. (*S.E.*)	Coeff. (*S.E.*)	Coeff. (*S.E.*)
High Investigation Workload	2.83 (4.20)	8.54 (7.25)	-13.56 (11.18)
Legal Factors			
Tier 14g<28g	35.74*** (5.24)	53.96*** (8.98)	9.92 (12.10)
Tier 28g<300kg	53.86*** (5.57)	75.03*** (9.35)	27.16* (12.55)
Pill Type	-1.58 (4.50)	-1.74 (8.09)	-12.83 (12.44)
Number of Other Drugs	-1.26 (2.22)	5.82 (4.34)	0.94 (4.65)
Number of Arrest Charges	4.10** (1.57)	0.24 (2.88)	-4.58 (3.78)
Upward Departure of Pill Weight	7.56 (13.45)	1.15 (22.63)	-3.33 (27.84)
Downward Departure of Pill Weight	13.35* (5.37)	27.03** (8.86)	0.94 (13.08)
Weapon Charge	-5.52 (12.29)	2.71 (16.87)	37.09 (25.88)
Prior Drug Arrests	0.72* (0.38)	0.71 (0.41)	-1.39 (1.00)
Prior Violent Arrests	8.28*** (2.09)	3.62* (1.57)	12.29** (4.25)
Prior FL Prison Commitments	5.47* (2.53)	4.11 (3.19)	0.17 (9.14)
Extra Legal Factors			
Age at Arrest	0.32* (0.16)	-0.69* (0.32)	0.01 (0.041)
Male	7.21 (4.04)	13.92 (9.55)	26.19 (13.99)
Intercept	6.94 (8.53)	37.47* (16.26)	26.19 (13.99)
R^2	0.21	0.23	0.22

Notes: N (White) = 748; N (Black) = 381; N (Hispanic) = 120; Coeff. = Coefficient; S.E. = Standard Error.

condition the effect that age at arrest has on sentence length. The effect of this moderation is positive for White offenders, but negative for Black offenders. Gender does not show any moderating effects.

DISCUSSION

The current study greatly contributes to the sentencing literature because it demonstrates the importance of incorporating a new legal variable, investigation workload, into future criminology research. Additionally, the basic tenets of optimal law enforcement theory have now been empirically tested and supported for the first time. This study suggests that the actions of law enforcement officers do affect sentencing outcomes and this influence should be further explored in the sentencing literature. Thus, police officers should be looked upon by criminologist as criminal justice actors that have the potential to affect later decision points within the criminal justice system.

Overall, this study found support for optimal law enforcement theory. More specifically, this study found offenders who are arrested under a high investigation workload are more likely to be sentenced to a longer prison term than those who were arrested using a low investigation workload by law enforcement. This is significant to criminology because it indicates that criminal justice decisions are not constrained within their own stage in the criminal justice system. Rather, this study suggests that criminal justice actors collaborate throughout the entire process which influences the later decision points of offenders. Additionally, this study contributes to the theoretical understanding of criminal justice outcomes by exploring how decision points across the system are constrained by cost-benefit analysis and economics. In evaluating the moderating effect of race to explain the variation in drug related cases, this study found that race does not moderate the relationship between investigation workload and sentence length. Although race is not significant in this study, it cannot be concluded that race has zero effect on sentence length for offenders in this study or other research. It is possible that race is operating in an indirect way, which will ultimately influence the sentence that offenders 'receive for prescription drug trafficking. Previous research has argued that race in the United States has a more covert and subtle operationalization than in the past (Bonilla-Silva 2006; Johnson, Stewart, Pickett, and Gertz 2011). Thus, future research needs to examine how the use of police resources, as well as race, influence later decision points in the criminal justice system. The current study significantly contributes to criminological research as it has discovered the importance of a new variable, high investigation workload, which must be further investigated, as well as a new disciplinary approach in understanding decisions made by criminal justice actors. Furthermore, the specific forms of investigation workload should also be explored to see if certain types of police investigation methods affect later criminal justice decision points.

While this study demonstrates the significance of a previously untested criminal justice theory, it is important to note that the current study has two main limitations. First, the current study is unable to control for pretrial decisions made in the criminal justice system for these offenders. There may be other decision points throughout the criminal justice process that influence the sentence length of these offenders' other than those used in the current study. Second, the sample only consisted of individuals who were arrested in the top 20 Florida counties for prescription drug trafficking of oxycodone and hydrocodone. It is possible that these offenders may be different than those arrested in other Florida counties or those arrested for trafficking different types of prescription drugs. However, it is unlikely that this limitation would influence the results of the analyses because the lowest county included in the current study only had 14 offenders arrested between the years of 2011 and 2013 for oxycodone and hydrocodone. Future studies should further explore investigation workload on criminal justice outcomes to explain variation across different decision points.

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