

LOYOLA UNIVERSITY CHICAGO

“LOCATION, LOCATION, LOCATION”: HOW WHERE A PRISONER IS HOUSED
INFLUENCES THE PRISON DISCIPLINARY PROCESS

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The law doesn't protect people. People protect the law.

- Det. Akane Tsunemori "Psycho-Pass"

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LIST OF ABBREVIATIONS

AIC	Akaike's Information Criterion
ARB	Administrative Review Board
DF	Degrees of Freedom
DR 504	Department Rule 504
GMC	Grand Mean Centered
IDOC	Illinois Department of Corrections
ILCS	Illinois Compiled Statutes
ILGA	Illinois General Assembly
JCAR	Joint Committee on Administrative Rules
IRB	Institutional Review Board
MSR	Mandatory Supervised Release
NRC	Northern Reception and Classification Center
ODR	Offender Disciplinary Report
PRB	Prisoner Review Board
SFY	State Fiscal Year
SMI	Seriously Mentally Ill
STG	Security Threat Group
TIS	Truth In Sentencing

ABSTRACT

The primary objective of this research is to gauge the extent to which Illinois' prisons vary in the severity of disciplinary sanctions imposed upon prisoners found guilty of committing similar rule violations. This research also seeks to identify factors that are most determinative of severity of disciplinary sanctions imposed upon prisoners after accounting for variance between prisons. The sample was constructed using data provided by Illinois prison officials concerning all prisoners released from prison in Illinois during a four-year period who were found guilty of committing at least one rule violation during their last term of incarceration. The research objective was achieved through multiple statistical analyses, including the use of multi-level statistical models. The results of the analyses demonstrated the existence of substantial variation between Illinois' prisons in severity of disciplinary sanctions imposed in response to similar rule violations, and showed how the discretionary authority of prison staff was exercised at key points of the disciplinary process. The results also indicated that the influence of variables reflecting the demographic characteristics of prisoners were non-determinative of severity of disciplinary sanctions imposed upon prisoners relative to variables reflecting characteristics of rule violations and the disciplinary history of prisoners. These results suggested that within each Illinois prison, there was a predominant view shared by staff and administrators as to how severely prisoners should be disciplined in response to similar rule violations. Further research should be conducted to probe the existence and foundation of these views in an attempt to explain the substantial variation existing between Illinois' prisons in how the prison disciplinary process is applied to prisoners who violate similar prison rules.

CHAPTER ONE

INTRODUCTION

Prison officials must establish a formal set of rules for prisoners and an effective disciplinary process to address violations of these rules to foster a safe and functional carceral setting (Butler & Steiner, 2017; Ellison, Steiner, Brennan, & Chenane, 2016; Flanagan, 1982; Griffin & Hepburn, 2006; IDOC 2017). A sizable volume of scholarship has been devoted to investigating factors that correlate with prisoner misconduct. However, limited studies exist concerning factors that influence the prison disciplinary process, the process by which prison officials impose disciplinary sanctions upon prisoners who violate prison rules (Butler & Steiner, 2017; Camp, Gaes, & Langan, 2003; Flanagan, 1982; Poole & Regoli, 1980; Steiner & Cain, 2017).

Study of the prison disciplinary process is necessary, as it may shed light on a routine, but highly impactful function of prison operations that is often shrouded in mystery due to the closed nature of prisons and the prison disciplinary process embedded within them (Butler & Steiner, 2017; Steiner & Cain, 2017). Objective assessments of the prison disciplinary process and the outcomes of this process can alert prison officials as to areas of concern, and guide policy reforms to remedy these concerns. This study adds to extant literature by examining the degree to which the prison in which a prisoner is sanctioned for a rule violation, henceforth referred to as an offense, is determinative of the severity of disciplinary sanctions imposed upon prisoners who are found guilty of committing similar offenses.

Most research conducted on factors influencing the prison disciplinary process and the disciplinary sanctions imposed on prisoners resulting from this process is limited to prison officials' utilization of disciplinary segregation (Butler & Steiner, 2017; Logan, et al, 2017) and revocation of sentence credits (Steiner & Cain, 2017), which effectively translates to extending the time a prisoner will remain in prison. It is understandable that research has focused primarily on more severe disciplinary sanctions, given the documented adverse effects of disciplinary segregation upon a prisoner's well-being (Brinkley-Rubenstein, et al, 2019; Butler & Steiner, 2017; Logan, et al, 2017) and the liberty interest at stake in sentence credit revocations (Steiner & Cain, 2017).

However, the majority of disciplinary sanctions imposed upon prisoners by Illinois' prison officials are relatively minor sanctions in response to relatively minor offenses, and it is expected that relatively minor offenses constitute the bulk of offenses committed by prisoners in most other jurisdictions. Little, if any, research seems to have been conducted on disciplinary sanctions of this type. Thus, inadequate attention has been paid to the factors that influence prison officials' decisions to levy relatively minor sanctions, such as verbal warnings or a temporary loss of privileges in response to the offenses most frequently committed by prisoners. This has resulted in a large gap in the research pertaining to the prison disciplinary process. Therefore, examining the most commonly imposed disciplinary sanctions in response to the offenses most frequently committed by prisoners will foster a better understanding of the prison disciplinary process as a whole; and, this methodological approach will better enable the analyses contained herein to test the hypothesis that substantial variance will be observed between prisons in the severity of disciplinary sanctions imposed upon prisoners who were found guilty of similar offenses.

The Legal Basis of the IDOC Disciplinary Process.

The Illinois Department of Corrections' (IDOC) formal disciplinary procedure is governed by statute (730 ILCS 5/3-8-7), Department Rule (20 Ill. Adm. Code 504, henceforth referred to as DR 504), and by specific policies outlined within IDOC's Administrative Directives. The formal disciplinary procedure utilized by IDOC was formed pursuant to the United States Supreme Court decisions related to disciplinary proceedings, the most prominent being *Wolff v. McDonnell*, 418 U.S. 539 (1974) and *Sandin v. Conner*, 515 U.S. 472 (1995) (Flanagan, 1982, IDOC, 2017, Steiner & Cain, 2017). These cases created a baseline due process standard for the prison disciplinary procedure, requiring that prisoners be adequately informed of prison rules, receive written notice of an alleged offense and a statement of facts explaining the basis of the accusation leveled against the prisoner (*Wolff v. McDonnell*, 418 U.S. at 564-565), and have their guilt and the appropriate disciplinary sanction determined by impartial staff (*Ibid.*, 571).

The *Wolff* Court declared that, "there would be great unwisdom in encasing the [prison] disciplinary procedures in an inflexible constitutional straightjacket that would necessarily call for adversary proceedings typical of the criminal trial" (*Ibid.*, 563). In short, the *Wolff* Court ruled that the prison disciplinary procedure is administrative in nature, differing from a criminal trial in several key aspects. The due process rights a prisoner is guaranteed when subjected to the prison disciplinary procedure fall short of the much higher threshold of rights guaranteed to a person subjected to the adversarial criminal trial process. Throughout the disciplinary procedure, a prisoner does not have the right to counsel or the right to confront witnesses (*Ibid.*, 567, 570). Further, while criminal convictions require proof "beyond a reasonable doubt" to satisfy due

process, prison disciplinary decisions require only “some evidence” to support a finding of guilt. *Superintendent v. Hill*, 472 U.S. 445 (1985).

In addition, a seldom mentioned key difference between the criminal process and the prison disciplinary process is that prisoners do not have an opportunity to forgo a hearing and plead guilty in exchange for reduced charges or lesser disciplinary sanctions, a stark contrast to criminal court proceedings. A plea bargain is how the overwhelming majority of criminal cases are resolved (Devers, 2011). There is no evidence of plea bargaining being used in the prison disciplinary process of any state’s prison system throughout the country. Also, plea bargaining is not codified as part of Illinois’ prison disciplinary process. This stands to reason given that prison officials have little to no incentive to bargain for prisoners’ cooperation in return for a secured verdict. Plea bargaining in the criminal process allows the prosecutor’s office to avoid both the expense and the uncertainty of conviction and punishment associated with criminal trials, factors that do not come into play throughout the prison disciplinary process. Thus, although it is common to analogize criminal procedure and sentencing practices to prison disciplinary procedures and sanctions, it is critical to keep in mind that the standards, processes and rights afforded to the accused in criminal proceedings radically differ from prison disciplinary proceedings.

Department Rule 504 (DR 504) contains the formal rules for the IDOC disciplinary process, lists and defines all offenses (i.e. rule violations), and sets the maximum disciplinary sanction that can be imposed upon a prisoner in response to an offense. DR 504, like all Department Rules, was proposed by IDOC administrators and then codified by the Joint Committee on Administrative Rules (JCAR) of the Illinois General Assembly (ILGA) after the proposed rule was subjected to the formal rule making process for Illinois’ state agencies. Thus,

the offenses discussed herein and the possible disciplinary sanctions for these offenses were created by IDOC officials in conjunction with Illinois' lawmakers.

Detailed Explanation of the IDOC Disciplinary Process.

The following explanation of the IDOC disciplinary process is not exhaustive, but it provides much more detail than is typically found in academic literature focusing on prison disciplinary practices. A detailed explanation of the IDOC disciplinary process is necessary in this instance, as it illustrates the connections tying prison disciplinary committees, prison administrators, IDOC regulations, and front-line employees together in disciplinary outcomes. Detailed information concerning the disciplinary process is extremely relevant to the hypothesis because it highlights the points at which the discretionary authority of prison officials may be exercised during the disciplinary process in a way that reflects the prevailing cultural and bureaucratic norms of a particular prison.

All employees of IDOC are required to monitor the behavior of prisoners. The formal IDOC disciplinary process is initiated when an employee of IDOC observes a prisoner committing an offense, or the results of an investigation concerning an offense indicate that a prisoner is more likely than not culpable for the offense. In both scenarios, an IDOC employee completes an Offender Disciplinary Report (ODR). An ODR must contain all relevant facts, i.e. a detailed narrative describing any offense listed within an ODR. If the prisoner is accused of committing multiple offenses during one incident, these offenses will be documented within a single ODR (IDOC, 2017).

After an employee completes an ODR, it is reviewed by the shift supervisor of the prison in which the offense occurred. The shift supervisor determines whether the ODR comports with the requirements of Department Rule 504 (DR 504), whether the offense is officially classified

as major or minor based on their perceived seriousness of the offense, and whether the facts as reported within the ODR justify a disciplinary hearing. If the shift supervisor concludes that the facts as reported within the ODR do not support the employee's claim that a prisoner committed an offense, the prisoner will not be subjected to the disciplinary process and the offense listed within the ODR will be expunged from the prisoner's IDOC record. If the shift supervisor decides that a disciplinary hearing is warranted, the ODR will be forwarded to the prison's Adjustment Committee if the offense is classified as a major offense. If the offense is classified as minor, it will be forwarded to the prison's Program Unit. The shift supervisor must forward any ODR containing a major offense to a hearing investigator, who may conduct an investigation into the charges if they consider an investigation to be necessary (IDOC, 2017).

Upon receipt of an ODR, in most cases the Adjustment Committee or Program Unit will convene within fourteen days to determine whether or not a prisoner is guilty of any offense listed within the ODR and determine the disciplinary sanction to be imposed upon the prisoner if found guilty. The Adjustment Committee or Program Unit may impose any disciplinary sanction that falls within the guidelines set by DR 504 for a particular offense, but the sanction must be levied in response to the most serious offense listed within an ODR (IDOC, 2017).

The warden of the prison in which the disciplinary hearing takes place must review the disposition of every hearing. The warden may confirm the disposition, order additional or new proceedings, concur with the disciplinary sanction imposed, or impose a lesser sanction. If the Adjustment Committee or Program Unit recommends loss of good time as a sanction, the Director of IDOC must review and concur with this recommendation before it is imposed (IDOC, 2017). If the amount of good time to be revoked as a disciplinary sanction exceeds 30 days, the law demands that the Illinois Prisoner Review Board (PRB) approve the revocation of

good time before this sanction can be imposed (see 730 ILCS 5/3-6-3). A prisoner may appeal the final disposition of the disciplinary proceeding by filing a prisoner grievance with IDOC's Administrative Review Board (ARB) (IDOC, 2017).

A prisoner must receive a copy of the ODR within eight calendar days after the commission of an offense or after being formally accused of having committed an offense following an investigation. Further, a copy of the ODR must be provided to the prisoner no less than 24 hours prior to a disciplinary hearing. A prisoner has a right to be present at the disciplinary hearing, provide testimony and documents relevant to their defense, and request that witnesses with direct knowledge of the events resulting in the prisoner being accused of an offense be allowed to furnish oral or written testimony. IDOC officials, however, possess the authority to disallow witness testimony if the testimony of the witness is not germane to the hearing or the testimony may jeopardize the safety and security of the prison. A prisoner is not permitted to cross examine witnesses or the employee who issued the ODR. Additionally, disciplinary hearings are not open to the public and an inmate is not permitted to be represented by an attorney throughout the entirety of the IDOC disciplinary process (IDOC, 2017).

Every IDOC prison has an Adjustment Committee and a Program Unit. The Adjustment Committee or Program Unit that conducts the hearing as to whether a prisoner is guilty of committing an offense and determines the disciplinary sanction is embedded within the prison where the prisoner is currently housed when the hearing takes place. As some prisoners are transferred to another IDOC prison between the time an ODR is issued and the time this ODR is addressed by an Adjustment Committee or Program Unit, a disciplinary hearing is sometimes held in a different prison than the prison in which an offense occurred. Additionally, a shift

supervisor has the discretionary authority to classify specific offenses as major and minor, but some offenses are automatically classified as major per DR 504 (IDOC, 2017).

The Adjustment Committee and Program Unit embedded within each prison must be composed of at least two staff who are appointed by the warden of that prison. Furthermore, the Adjustment Committee and Program Unit must include, at a minimum, one minority staff member. Any IDOC employee who initiated an ODR, witnessed an incident resulting in an ODR, or was involved in an investigation resulting in an ODR and is a member of the Adjustment Committee or Program Unit must recuse themselves from the disciplinary process applied to the prisoner named in the ODR (IDOC, 2017).

CHAPTER TWO

LITERATURE REVIEW

The focal concerns perspective is a bureaucratic theory that attempts to explain how criminal justice practitioners embedded within a courtroom or administrative setting make decisions as to culpability and sanctions in response to violations of criminal laws or administrative rules.

The focal concerns perspective as applied to courtroom working groups posits that sentences imposed by judges are mostly influenced by three concerns: perceived blameworthiness or culpability of the offender, perceived link between sentence imposed and enhancement of public safety, and the perceived practical consequences of the sentence imposed upon the offender and the community at large (Hartley, Maddan, & Spohn, 2007). The focal concerns perspective also posits that courtroom working groups consisting of prosecutors, defense attorneys, and judges (Haynes, Ruback, & Cusick, 2010) develop patterned responses to specific criminal offenses, influenced by the information available to them concerning legal and extralegal factors associated with an offense and the person who committed the offense. Legal factors include severity of offense and criminal history, while extralegal factors consist of demographic characteristics and the demeanor of the criminal defendant (Logan, et al., 2017).

Patterned responses are prompted in part by the need to confront the uncertainty inherent in a courtroom working group's ability to assess an offender's culpability, danger to the community, and likelihood of reform based upon the limited information available to them. Patterned responses also reflect the working group's collective beliefs as to how cases should be

processed and the organizational culture of the courtroom working group (Butler & Steiner, 2017; Steiner & Cain, 2017).

The focal concerns perspective has been widely adopted by researchers attempting to explain variation in sentencing decisions existing within and between court systems (Hartley, Maddan, & Spohn, 2007). The focal concerns perspective also has been routinely used by scholars as the theoretical basis underlying hypotheses attempting to explain the decision-making process employed by prison officials when sanctioning prisoners for offenses. Scholars who apply the focal concerns perspective to the prison disciplinary process cite the similarities between the contextual framework in which punishment decisions are made in a criminal court and administrative procedures such as the prison disciplinary process to build a conceptual bridge linking the two (Butler & Steiner, 2017, citing Huebner & Bynum, 2006; Lin, Grattet, & Petersilia, 2010; Steiner, Makarios, Travis, & Meade, 2011).

Prison disciplinary committees share similar focal concerns as courtroom working groups, such as blameworthiness of prisoners accused of committing an offense, preserving safety and security of the prison community, and the ramifications of disciplinary sanctions upon both prisoners and the prison in which the disciplinary committee operates. Also similar to courtroom working groups, prison disciplinary committees consider legal and extralegal factors while addressing these concerns as they mete out disciplinary sanctions (Butler & Steiner, 2017; Hartley, Maddan, & Spohn, 2007; Logan, et al, 2017; Steiner & Cain, 2017). Steiner and Cain (2017) observed that “it seems reasonable, therefore, that prison officials might also manage the uncertainty surrounding punishment decisions by developing patterned responses...linked to characteristics of rule violations and/or inmates” (p. 75). Just as the organizational culture of courtroom working groups may shape patterned responses to certain criminal offenses according

to legal and extralegal factors, it is expected that the organizational culture unique to each prison will manifest in patterned responses to offenses committed by prisoners. This premise is based on the assumption that most employees of a given prison will share common beliefs as to what constitutes an appropriate disciplinary sanction in response to an offense (Butler & Steiner, 2017).

Butler and Steiner (2017) found that legal factors have a stronger influence upon disciplinary sanctions levied against prisoners when compared to extralegal factors. Therefore, it is expected that the analyses reported herein will demonstrate that legal factors influence the severity of disciplinary sanctions more than extralegal factors. It should be noted, however, that legal factors may be influenced by extralegal factors in ways that are not readily apparent. For example, there is a possibility that a prisoner's prior offense history is the result of prison employees being more inclined to write an Offender Disciplinary Report (ODR) in response to an offense due to extralegal factors, or demographic characteristics of the prisoner (Logan, et al, 2017). It is for this reason that legal factors should be carefully scrutinized in an attempt to gauge whether or not reported legal factors are indeed independent of biases commonly associated with extralegal factors such as age, gender and race.

How does the focal concerns perspective literature as applied to the prison disciplinary process translate to plain English? It essentially says that when a prisoner is subjected to the disciplinary process, there is no way for prison officials to be certain about how blameworthy a prisoner is, how a disciplinary sanction imposed upon a prisoner will affect the safety and security of a prison, or what impact the sanction will have on a prisoner or the prison (in terms of costs). To compensate for this uncertainty, prison officials will impose the same disciplinary sanction in response to a particular offense most of time, but the sanction may vary a bit based

on the prisoner who committed the offense and the circumstances surrounding the offense. The disciplinary sanction routinely imposed in response to a specific offense, i.e. the patterned response to an offense, is expected to vary between prisons because prison employees and administrators at each prison likely share similar views as to how blameworthy a prisoner who commits an offense is, how safe their prison is and what role disciplinary sanctions play in keeping or making their prison safe, and the level of concern about the cost of the sanction borne by the prisoner and prison.

The focal concerns perspective is not universally accepted at face value as an explanation for the sentencing variation that often exists within and between court systems, or in this instance, variation in disciplinary sanctions imposed between prisons. Harley, Madden, and Spohn (2007) opined that, “because focal concerns theory lacks serious theoretical development by criminologists, there is not an explicit thesis of an established set of propositions that support this theoretical framework” (p. 62). They also noted that focal concerns theorists fail to explain how various concepts upon which this theory are premised, such as blameworthiness of offender and community safety, work together. Finally, they point out that the concepts of focal concern theory may contain interrelated, overlapping variables. This may be problematic because these variables can be measures of more than one concept; for example, a defendant’s criminal history can be used as an indicator of both the blameworthiness of the offender and threat to community safety, making it difficult to assess the influence of individual variables upon specific concepts (Harley, Madden, & Spohn, 2007). An exhaustive critique of the focal concerns perspective literature is beyond the scope of this work, but recognition of the potential flaws of any theory used to support a claim or hypothesis concerning human behavior should be a mandatory feature of all literature reviews. No theory attempting to explain human behavior is flawless.

It is worth noting that observations contained within studies of bureaucratic entities operating outside of the criminal justice domain lend support to some of the premises underlying the focal concerns perspective, especially in regards to the influence of an organizations' culture and bureaucratic structure upon exercises of discretion made by system actors. In a study of the process through which people appeal denials of welfare benefits, Lens (2012) observed that "discretion is channeled by organizational incentives" and "although hearings are organizationally separate from the front lines and the everyday workings of the bureaucracy, there is potential for seepage between the two" (p. 270).

These observations suggest that a prison's culture will influence how severely prison disciplinary committees sanction prisoners for offenses. Although prison disciplinary committees are independent entities on paper, their decisions are directly impacted by the discretionary authority of a prison's warden (IDOC, 2017). Additionally, the members of a prison's Adjustment Committee or Program Unit work alongside other prison employees on a daily basis, often live in the same communities, and are likely to be included in a peer group consisting of numerous other prison employees who are not members of the disciplinary committee. In some instances, members of the Adjustment Committee and Program Units hold multiple positions in a prison, such as Correctional Counselor for example, further embedding them within the shared culture and wider community of prison employees. In totality, these facts lend credence to Lens' assertion that one should not assume that absolute independence exists between front-line employees and those who are tasked with evaluating decisions made by these front-line employees if these two groups work together in the same bureaucracy (2012).

Current Study.

The focal concerns perspective as applied to the prison disciplinary process might be a viable explanation as to why the severity of disciplinary sanctions imposed upon prisoners vary across prisons. Prisoners who are housed in separate prisons are likely to receive different sanctions for the same offense, as each prison has its own distinctive culture and conventions. Admittedly, it was not the primary objective of the current study at the outset to test the focal concerns perspective; it, however, appears to be a suitable theoretical framework to explain why prisons vary in the severity of disciplinary sanctions imposed upon prisoners. Although Harley, Madden, and Spohn (2007) were critical of this approach, the analyses reported herein support aspects of the focal concerns theory.

As alluded to in the Introduction chapter, the sample used for the analyses reported herein is limited to low-level offenses as classified by prison officials and Illinois lawmakers, level 300 and 400 offenses. The Methods chapter will illustrate that low-level offenses are by far the most common offenses prisoners are found guilty of committing. Such offenses make for an ideal sample when examining the extent to which the particular identity, customs and conventions of an individual prison influences the severity of disciplinary sanctions imposed upon prisoners.

The objective of this research is to gauge the extent to which the prison in which a prisoner was subjected to the disciplinary process was determinative of the severity of the disciplinary sanction imposed upon them. It is hypothesized that there will be substantial variance observed between prisons in analyses utilizing dependent variables measuring severity of disciplinary sanctions imposed on prisoners who were found guilty of similar offenses. This expectation is influenced by the assumption that each prison is a unique bureaucratic and cultural entity operating within the constraints of a bureaucratic structure set by a state agency and

lawmakers. The practitioners of the disciplinary process embedded within each prison may be strongly influenced by the bureaucratic structure and cultural norms of the prison they operate within. If the hypothesis is supported, the analyses reported herein should demonstrate discernable variation between how similar prisoners are sanctioned for similar offenses at different prisons.

CHAPTER THREE

DATA AND SAMPLE

Two datasets provided by IDOC were utilized in the analyses reported herein: One, a file identifying all prisoners who exited IDOC between July 1st 2010 and June 30th 2014 (State Fiscal Years (SFY) 2011 to 2014), hereafter referred to as the exit file dataset; and two, a disciplinary dataset containing data related to all prison rule violations, hereafter referred to as offenses, incurred by all prisoners included within the exit file dataset throughout their history of incarceration while imprisoned in an IDOC facility(s). Both the exit file and disciplinary datasets contained identifiable data to allow for the matching of the prisoner data and the disciplinary offense data, the prisoner's unique IDOC identification number assigned to every prisoner placed in the custody of IDOC.

Strict protocols set by Loyola University's Internal Review Board (IRB) regarding identifiable data involving a vulnerable population were followed to ensure prisoner anonymity and the confidentiality of the datasets at all stages of this research.

Legitimate concerns have been raised regarding the use of official records to measure offenses committed by prisoners. Underreporting of offenses may result from prison employees' limited ability to detect offenses and their discretionary authority to not officially acknowledge an offense by completing an Offender Disciplinary Report (ODR) (Ellison, Steiner, Brennan, & Chenane, 2016). Overreporting of offenses or selection bias may result from a prison employee's propensity to cite individual prisoners, or groups of prisoners based on their demographic

characteristics for offenses more so than other prisoners or groups of prisoners (Bales & Miller, 2012; Butler & Steiner, 2017; Griffin & Hepburn, 2006; Logan, et al, 2017).

These concerns are especially relevant in this instance, as the analyses reported herein are directed towards low-level, less serious offenses. It is expected that the aforementioned biases that may be reflected in official data are more likely to manifest in a sample consisting of low-level offenses in comparison to high-level, more serious offenses. High-level offenses such as assaulting a prison employee will most certainly be detected, and the explicit or implicit biases of IDOC employees are unlikely to influence a decision as to whether or not an ODR will be issued. In contrast, less serious offenses, such as 406—Trading or Trafficking [of physical objects], are less likely to be detected by IDOC employees, and may be less likely to result in a formal ODR being issued due to the relatively minor nature of the offense.

Although the concerns regarding official records cited above are well grounded, numerous researchers have concluded that official records are valid indicators of offenses committed by prisoners (Butler & Steiner, 2017; Ellison, Steiner, Brennan, & Chenane, 2016; Steiner, Butler, & Ellison, 2014; Steiner & Wooldredge, 2009). Additionally, limiting the sample to a single event associated with one prisoner, the last offense committed by a prisoner during their last term of incarceration, may correct for potential biases that may exist in the disciplinary dataset (Bales & Miller, 2012).

The analyses were based on the last offense committed by prisoners who were found guilty of at least one offense during their last incarceration as documented within the exit file dataset. Logan et al. (2017) recommended use of a prisoner's most recent offense when analyzing prison disciplinary practices, as this approach improves temporal ordering within statistical models utilizing independent variables reflecting legal factors such as offense history.

Description of Selection of Final Sample from Prisoner Population Included in the Exit File

Dataset.

During the period of SFY 2011 to 2014, 91,846 unique prisoners exited IDOC according to the exit file dataset. All 91,846 prisoners were identified by IDOC as committing an offense at least one time during their history of incarceration in IDOC, but only 48,337 of these prisoners were found guilty of an offense during their last term of incarceration. An exit from IDOC occurs when a prisoner is released onto Mandatory Supervised Release (MSR) status—a term of post-release supervision imposed upon every prisoner sentenced to prison in the state of Illinois (see 730 ILCS 5/5-8-1), the prisoner is discharged after the prison sentence imposed by a sentencing court expires, or the prisoner dies.

The exit file data set listed 122,848 prisoner exits from IDOC. Of the 122,848 exits recorded in the exit file dataset, there were 31,002 duplicate cases because some of the 91,846 prisoners contained within the exit file dataset were committed to the custody of IDOC by a sentencing court multiple times or the prisoner was returned to an IDOC prison for violating a condition of MSR while under IDOC supervision in the community during the period of SFY 2011 through 2014. Duplicated cases were eliminated by limiting the sample to the last offense committed by each prisoner who was found guilty of an offense during their last incarceration as documented within the exit file dataset.

Table 301. Composition of the Sample I: Exit File Dataset

Dataset	Exit file
Exits within dataset	122,848
Prisoners within dataset	91,846
Prisoners with a disciplinary history within dataset	91,846
Prisoners found guilty of at least one offense during last incarceration within dataset	48,337
Prisoners in final sample after filters applied (see page 20)	42,637

Most prisoners included in the final sample (63.8%) were cited for a single offense within an ODR. The remaining prisoners (36.2%) had two or more offenses listed within an ODR. The most serious offense alone was used in the analyses when multiple offenses were listed within an ODR. Also, the most serious offense listed within an ODR was used when grouping distinct offenses into offense levels when the sample was constructed. Details concerning the grouping of offenses are provided in Chapter Four: Methods. This approach was in large part influenced by IDOC's policy dictating that any disciplinary sanction imposed upon a prisoner must be based on the most serious offense listed within an ODR (IDOC, 2017). The effect of specific secondary offenses or the offense level of secondary offenses upon disciplinary sanctions were not examined in and of themselves. The secondary offenses were accounted for in the analyses by a variable reflecting the number of offenses contained within each ODR.

There were 928,025 offenses documented within the disciplinary dataset that took place between January 1st 1753 (erroneous data) and May 5th 2015 that were committed by the 91,846 prisoners contained within the exit file dataset. All offenses within the disciplinary dataset listed as occurring during the year 1753 were removed, as were all offenses that occurred after June 30th 2014, the last day of SFY 2014 ($n = 27,387$). All offenses that did not result in a finding of guilty by an Adjustment Committee or Program Unit were removed as well ($n = 117,053$). Only four offenses (0.003%) within the disciplinary dataset that did not result in a finding of guilty were level 300 or 400 offenses, the objects of analyses. After these filters were applied to the disciplinary dataset, 783,585 offenses remained.

Table 302. Composition of the Sample II: Disciplinary Dataset

Dataset	Disciplinary
ODR's within dataset	928,025
Prisoners within dataset	91,846
ODR's with finding of guilty within dataset	810,972
ODR's remaining after date filter (year 1753 & ODR's after June 30 th 2014 removed)	783,585
ODR's remaining when sample reduced to a prisoner's last offense during last incarceration	48,337

The 91,846 prisoners contained within the exit file dataset were then narrowed down to those who were found guilty by an Adjustment Committee or Program Unit of committing at least one offense during their last term of incarceration as documented within the exit file (n = 48,337). After the date and guilty finding filters discussed above were applied, all remaining offenses (other than the final offense committed by a prisoner—the object of analyses) were used to construct variables representing the disciplinary history of each prisoner included the final sample.

The final sample was limited to offenses that occurred within five years of a prisoner's exit date during their last term of incarceration as documented within the exit file dataset. This filter only applied to any prisoner who was in IDOC custody for longer than five years for their last term of incarceration in which they were found guilty of an offense (n = 159). Consequently, all offenses included in the final sample occurred between July 1st 2005 and June 30th 2014, with 99% of these offenses occurring between January 1st 2009 and June 30th 2014. The exclusion of offenses that did not occur within five years of a prisoner's exit date during their last term of incarceration established a restricted time frame. It was posited that the IDOC employees who effectuate the disciplinary process are influenced by organizational and cultural factors unique to the prison they work in. Establishing the restricted time frame increased the likelihood that the

organizational and cultural factors of the prisons included in the sample were constant for all offenses subjected to analyses.

In summary, the final sample of 42,637 of prisoners who were found guilty of an offense during their last term of incarceration was reached after the merged datasets was purged of cases (n = 5,541) that met one of the following three conditions. One, the final offense committed by a prisoner during their last incarceration as captured by the exit file was not amongst the types of offenses included in the analyses (n = 195). Two, the offense did not occur within a traditional prison or the researcher determined that the prison was not suitable for use in the analyses (n = 5,262). Three, the disciplinary sanction for an offense was not based upon the most serious offense contained within an ODR when there were multiple offenses listed in an ODR (n = 84). The rationale for excluding cases that met one of the three conditions listed above from the final sample are explained in the paragraphs that follow.

Condition One (the final offense committed by a prisoner during their last incarceration as captured by the exit file was not amongst the types of offenses included in the analyses): There are 42 offenses listed within the IDOC Department Rule governing the prison disciplinary process (20 Ill. Adm. Code 504, henceforth referred to as DR 504). These offenses are grouped together according to offense level, indicated by the first number in a three-number sequence. Officially, there are six offense levels (100, 200, 300, 400, 500, and 600).

Any offense within level 500, 501—Violating State or Federal Laws, was removed from the final sample as it was unknown if criminal charges were sought and criminal sanctions imposed on the prisoner in addition to, or in lieu of any disciplinary sanctions imposed by IDOC. Also, any offense within level 600, 601—Aiding, Abetting, Attempt, Solicitation, or Conspiracy

to commit one or more of the 41 other offenses was removed from the final sample because inchoate offenses are distinct from the offenses that underlie an inchoate offense.

Condition Two (the offense did not occur within a traditional prison or the prison was not suitable for use in the analyses): Offenses committed in an IDOC work camp, boot camp, or work release center were also excluded from the final sample. While a prisoner is still a prisoner if held in these three types of facilities, these facilities utilize alternative forms of disciplinary sanctions and incentives for positive behavior not employed in the standard prison setting. Additionally, work camps, boot camps, and work release centers are atypical carceral settings in comparison to traditional prisons by design. Also, offenses committed at the now closed Tamms, a closed-maximum-security prison commonly referred to as a supermax, were omitted from the final sample because this facility was also an atypical carceral setting.

If the disciplinary dataset was not clear as to which prison a disciplinary hearing occurred in, or the prison listed as the prison in which the disciplinary hearing took place was incorrect, the offense was removed from the sample. For example, all offenses that occurred at IDOC's Northern Receiving and Classification Center (NRC) had Stateville, the maximum-security prison adjacent to NRC listed as the prison where the disciplinary hearing took place. Prisoners were not transported from NRC to Stateville for disciplinary hearings, and whether or not the same Adjustment Committee and Program Units that conduct disciplinary hearings at Stateville travel to NRC to conduct disciplinary hearings was unknown.

Condition Three (the disciplinary sanction for an offense was not based upon the most serious offense contained within an ODR when there were multiple offenses listed in an ODR): Any offense that resulted in a disciplinary sanction exceeding the maximum allowable sanction according to DR 504 for the first offense listed within an ODR was removed from the sample. As

previously noted, there were two or more offenses listed within many ODR's connected to the offenses utilized as the basis of the analyses, and an ODR is the document used as the basis of the disciplinary process a prisoner is subjected to. The first offense listed within an ODR should be the most serious of the offenses when more than one offense is recorded within an ODR, and the disciplinary sanction imposed on a prisoner should be based on the first offense alone (IDOC, 2017).

This held true for the overwhelming majority of the cases (99.8%) in the sample. In some cases (n = 84), however, the disciplinary sanction imposed upon a prisoner was based on the second most serious offense listed within an ODR when there was more than one offense listed within an ODR. Most of these cases (81%; n = 68) had 301—Fighting listed as the first offense within an ODR. Such a practice is contrary to IDOC policy (IDOC, 2017), therefore these cases were removed from the sample. Including such cases in the sample would be problematic. If such cases were included, some of the offenses included in the analyses would not have accurately corresponded with the sanction imposed in response to the offense, thereby tainting the results of the analyses. Additionally, including such cases in the sample rather than recoding them would have introduced obvious cases in which an Adjustment Committee or Program unit violated IDOC disciplinary policy into the analyses.

CHAPTER FOUR

METHODS

The objective of the analyses reported herein was to gauge the extent to which the prison in which a prisoner was sanctioned for an offense independently influenced the severity of the disciplinary sanction imposed after controlling for variables representing extralegal and legal factors. These analyses were cross-sectional in nature, conducted using a non-random sample of a population prisoners who exited IDOC within a given time frame, constructed using official data provided by IDOC on both prisoners who exited IDOC between State Fiscal Year (SFY) 2010 and SFY 2014 and the offenses committed by them while in IDOC custody. No weighting procedures were utilized in the analyses reported herein, as it was determined that no selection bias resulted from the construction of the final sample or the method of analyses applied to level 300 and 400 offenses.

Summary of Statistical Tests and Models Utilized in the Analyses of Disciplinary Sanctions Imposed for Level 300 and 400 Offenses.

Univariate, bivariate, single-level logistic regression, and multi-level logistic regression statistical analyses were utilized to examine the application of disciplinary sanctions imposed upon prisoners housed in 27 IDOC prisons who were subjected to the disciplinary process, and to measure the extent to which the prison in which a prisoner was sanctioned for an offense influenced the severity of the sanction a prisoner received. An overview of these statistical analyses are described as follows: one, the statistical tests used for the bivariate analyses are listed, including a brief explanation of the application of these tests; two, a concise discussion of

the use of single-level logistic regression statistical models contained in the analyses is provided; and three, an explanation is provided as to the necessity and use of the multi-level logistic regression statistical models that served as the primary statistical models used throughout the analyses reported throughout this work.

For the bivariate statistical analyses, the Chi-square test of independence was used to determine if there was a statistically significant association between the primary independent variable of interest (prison) and the dependent variables, both of which had dichotomous outcomes with a possible value of no or yes. The Chi-square test of independence was also used to determine if there was a statistically significant association between categorical or partially ordered variables representing extralegal and legal factors and the dependent variables. The t test was used to gauge the existence of a statistically significant difference between the means of the continuous independent variables related to prisoners after prisoners were grouped into two categories according to the dichotomous outcome of the dependent variables. All requirements for a valid Chi-square and t test were satisfied for all bivariate analyses reported throughout this work.

The Bonferroni method, a common alpha-adjustment procedure was used in this instance to reduce the probability of Type I errors occurring that may result from large sample sizes and a high number of statistical tests utilized within an analysis (O'Keefe, 2003). A Type I error, i.e. rejection of a null hypothesis that was true, occurs when a Chi-square test indicates the existence of a statistically significant association between two variables when the observed association between these variables was a function of chance rather than an actual correlation.

The baseline p value for statistical significance used throughout the analyses was 0.05, the standard benchmark for statistical significance employed by social science researchers. The

following table indicates p values required for a bivariate association to have been considered statistically significant in the analyses after the Bonferroni method was applied to the 0.05 benchmark for statistical significance.

Table 401. Reported Bivariate Analyses by Minimum p Value Required for a Statistically Significant Association Post Bonferroni Method

Reported Analyses	Minimum p Value Required for Statistical Significance
Chapter Five: Results—B and C	.004
Chapter Six: Results—B and C	.004
Chapter Seven: Subanalysis A	.025
Chapter Seven: Subanalysis B	.013

Cramer's V and Phi tests were used to measure the strength of association between categorical or partially ordered independent variables and the dependent variables. Cramer's V, a Chi-squared based measure, operates on a scale of zero to one, a value of zero indicating no measurable association between variables and a value of one indicating a perfect association between variables. Phi, also a Chi-square based measure, operates on a scale of -1 to 1, a value of zero indicating no measurable association between variables while a value of one (positive or negative) indicates a perfect association between variables.

The Pearson's r test was used to assess both the existence of a statistically significant association between the continuous variables representing extralegal factors and the dependent variables, and the strength of the association between these variables. As the values of the continuous variables subjected to bivariate statistical tests were normally distributed, the use of Pearson's r was appropriate. Pearson's r operates on a scale of -1 to 1, a value of zero indicating no measurable association between variables, while a value of 1 (positive or negative) indicates a perfect association between variables.

Table 402. Bivariate Measure of Association by Labels of Strength of Association

Bivariate Measure of Association	k*	Labels of Strength of Association			
		Extremely Weak	Weak	Moderate	Strong
Phi (Absolute Value)	2	< .10	.10 to < .30	.30 to < .50	≥ .50
Cramer's V	3	< .07	.07 to < .21	.21 to < .35	≥ .35
Cramer's V	4	< .06	.06 to < .17	.17 to < .29	≥ .29
Cramer's V	5	< .05	.05 to < .15	.15 to < .25	≥ .25
Cramer's V	6+	< .05	.05 to < .13	.13 to < .22	≥ .22
Pearson's r (Absolute Value)	-	< .20	.20 to < .30	.30 to < .40	≥ .40

*k = minimum number of categories in either rows or columns

- Bivariate strength of association labels for Phi and Cramer's V measures based on Mangiafico (2016, citing Cohen, 1988).
- Pearson's r strength of association labels based on Akoglu (2018)

Single-level logistic regression models were used to measure the influence of the primary independent variable (prison) and covariates representing extralegal and legal factors upon the dependent variables. As alluded to in the paragraph that follows, use of a multi-level statistical model is considered to be the proper mode of analysis when individuals are nested within distinct groups (Cox, 2010; Raundenbush & Bryk, 2002). However, the results of the single-level logistic regression models and the statistics underlying these models provided additional insight concerning the influence of the primary independent variable and covariates upon the dependent variables in the analyses of level 300 and 400 offenses.

Multi-level logistic regression models were used to gauge the variation of disciplinary sanctions imposed between and within prisons, as it was hypothesized that the disciplinary process nested within the 27 prisons will be influenced by organizational and cultural factors unique to each prison (Butler & Steiner, 2017; Logan, et al, 2017; Raundenbush and Bryk, 2002; Steiner & Cain, 2017). The final sample consisted of 42,637 individual offenses, the last offense committed by prisoners who were found guilty of at least one offense during their last incarceration subjected to the IDOC disciplinary process within 27 unique prisons. Thus, the dataset was hierarchal in nature in that distinct cases, individual offenses committed by

prisoners, were nested within 27 distinct groups, prisons (Cox, 2010; Raundenbush & Bryk, 2002). As the offenses were nested within groups, distinct prisons in which all prisoners are assumed to be subjected to similar conditions, a multi-level model was required because the assumption of independence of all cases required for viable single-level multivariate models was violated (Maas & Hox, 2005).

The multi-level statistical models were used to measure the amount of variance existing at the group-level (prisons) after controlling for the influence of individual-level effects representing extralegal and legal factors. Four viable multi-level statistical models were constructed in this instance with a multi-level dataset consisting of 27 groups at the group-level in all four models. A multi-level dataset limited to 27 groups was not conducive to measuring group-level effects, however. When using a multi-level statistical model, a large number of groups is required for accurate group-level variance estimates when variables are added at the group-level rather than a large number of cases nested within the groups (Maas & Hox, 2005). If a researcher is interested in examining cross-level interactions, Hox recommends a minimum sample size of 50 groups (2010).

The inability to include variables at the group-level did not create a fatal flaw in the results of the analyses reported herein. The results of the multi-level statistical models absent group-level variables reported herein demonstrated the amount of variance in the severity of disciplinary sanctions imposed upon prisoners existing at the group-level (prisons), which fulfilled the objective of the analyses. The inability to include variables at the group-level, variables measuring the characteristics of an individual prison such as overcrowding, security-level, or a prison's overall rate of prisoner misconduct merely rendered the models incapable of providing insight as to why prisons varied in the severity of disciplinary sanctions imposed

between them. Ultimately, the models reliably gauged the amount of variance existing between prisons in the severity of disciplinary sanctions imposed upon the prisoners found guilty of committing the offenses that were the objects of the analyses.

Consistent with best practices, a null model, or intercept only model, was created for each analysis prior to the construction of the multi-level statistical models reported in the Results chapters of this work. The two variables inserted into the null models were the dependent variable and the grouping variable (prisons). The null model estimated the variance of error terms at the individual-level (prisoner and offenses) and the group-level (prisons), allowing for an intraclass correlation that provides a measure of the proportion of group-level variance compared to the total variance existing within a multi-level structured dataset (Hox, 2010). Additionally, the null models served as benchmark of comparison for other models. Subsequent to the addition of individual-level effects into a multi-level model, the quality of the model was assessed in part by an observed reduction in the Akaike's Information Criterion (AIC) and deviance statistics related to the null models. As anticipated, the AIC and deviance statistic were lower for models including individual-level effects representing extralegal and legal factors in comparison to the corresponding null models. The results of the null models and statistics underlying the reported multi-level models can be found in Appendix C.

The four multi-level logistic regression models reported in Chapter Five: Results—B & C and Chapter Six: Results—B & C were fitted using the full maximum likelihood method which includes both the variance components and regression coefficients in a likelihood function (Hox, 2010). The variance components of the slopes were fixed at zero for all models because there were no independent variables added at the group-level in any of the four models. The variance components of the intercepts were permitted to vary across the 27 groups included in the four

multi-level models reported. Allowing the variance components of the intercepts to vary made it possible to assess the amount of variance accounted for at the group-level and individual-level of the models after controlling for the influence of individual-level effects upon the dependent variable (Hox, 2010).

In the multi-level statistical models, the variables “age at time of offense” and “sentence” were grand mean centered to control for compositional variances between groups, prisoners nested within each prison included in the sample (Butler & Steiner, 2017, citing Raudenbush & Bryk, 2002; Cox, 2010).

Microsoft Excel, IBM’s SPSS, and R were used to generate univariate statistics and recode variables. IBM’s SPSS was used for bivariate statistical analyses and single-level logistic regression models. R was used for the multi-level logistic regression models. Please see Appendix D for a listing of R packages utilized for the multi-level statistical models.

Detailed Explanation of the Methodology Concerning the Examination of Disciplinary Sanctions Imposed for Level 300 and 400 Offenses.

The foci of the analyses reported herein were limited to two offense levels, level 300 and level 400 offenses. Both offense levels include offenses considered to be low-level, or offenses that do not jeopardize the safety and security of a prison in and of themselves to the extent of most level 100 or 200 offenses (for description of all 42 offenses, see Appendix A). As noted in the Introduction chapter, the majority of disciplinary sanctions imposed upon prisoners by Illinois’ prison officials are relatively minor sanctions levied in response to relatively low-level offenses that fall exclusively within the level 300 and 400 offense categories.

Two dichotomous dependent variables were used to gauge severity of disciplinary sanctions imposed: one, “verbal warning (no = 0/yes = 1),” and two, “loss or restriction of

privileges only (no = 0/yes = 1).” Both dependent variables were utilized in analyses conducted on two subsets of the sample, level 300 and 400 offenses, resulting in four distinct analyses. A verbal warning or loss or restriction of privileges were the least severe formal disciplinary sanctions that could have been imposed upon a prisoner. These dependent variables are discussed at length below on page 38.

The objective of this research was to gauge the extent to which the prison in which a prisoner was sanctioned for an offense independently influenced the severity of a disciplinary sanction imposed after controlling for the influence of other variables. Using the most common offenses (level 300 and 400), and the most common disciplinary sanctions imposed in response to these offenses (verbal warning or loss or restriction of privileges) as the basis of the analyses was the most effective methodological approach to achieve the objective of this research, and to test tenets of the focal concerns perspective. Using relatively uncommon offenses that are likely to be clustered within certain prisons more so than others, such as 102—Assaulting Of Any Person as the basis of the analyses would not have been an effective methodological approach.

Additionally, including level 100 and 200 offenses in the analyses may have introduced a confounding element into the analyses, as the detailed facts (i.e. the narrative explaining each offense listed within an ODR) underlying these offenses were more likely to influence disciplinary sanctions imposed upon prisoners when compared to relatively low-level, less serious offenses. As facts underlying each offense included in the sample were not available to the researcher, there was no way to accurately measure the extent to which the facts underlying an offense influenced the independent and dependent variables used to analyze the disciplinary process in this instance, or decisively conclude if facts underlying an offense were more or less likely to influence the disciplinary process for one offense level when compared to another.

However, the results of bivariate statistical tests suggested “offense classification,” a variable indicating the seriousness of an offense as determined by a prison’s shift supervisor, was associated with place (prison) more so than events (specific offenses). Bivariate statistical tests suggested that a stronger association existed between “offense classification” and the prison in which the offense was subjected to the disciplinary process (Cramer’s $V = .413$, $p < .001$) than the bivariate association between “offense classification” and the three most common level 300 offenses ($n = 19,157$) (Cramer’s $V = .299$, $p < .001$). Similarly, bivariate statistical tests suggested that the strength of association between “offense classification” and “prison” (Cramer’s $V = .472$, $p < .001$) was substantially stronger than the bivariate association between “offense classification” and specific level 400 offenses ($n = 14,663$) (Cramer’s $V = .319$, $p < .001$). For a full description of the “prison” and “offense classification” variables, please see pages 39 and 47 below.

If the facts underlying the majority of relatively low-level, less serious offenses significantly varied within specific offenses or were a critical factor considered by prison officials when these offenses were subjected to the disciplinary process, it is unlikely that a stronger bivariate association would have been observed between the “prison” and “offense classification” variables in comparison to the bivariate association between “offense classification” and the level 300 and 400 offenses included in the sample. Because the prison in which an offense was subjected to the disciplinary process was more strongly associated with “offense classification” than all level 300 and 400 offenses included in the sample, this suggested that the fact based narratives underlying the level 300 and 400 offenses included in the analyses may have been relatively uniform, or that facts underlying specific level 300 and 400 offenses did not sway prison officials’ decisions as to disciplinary sanctions by much. For more details

concerning the association between the “prison” and “offense classification” variables, and the extent to which the offense classification of level 300 and 400 offenses varied by prison, please refer to Chapter Seven: Subanalyses of Key Independent Variables, page 143.

To best achieve the stated research objective and test tenets of the focal concerns perspective, the analyses were conducted using samples of offenses most representative of the offenses prisoners were found guilty of committing, and the magnitude of the variance between the facts underlying most of the specific offenses included in the sample would be as small as possible. The likelihood of fulfilling the latter was increased by subjecting low-level offenses such as 304—Insolence and 307—Unauthorized Movement to the analyses rather than high-level offenses such as 206—Intimidation or Threats or 106—Escape or Runaway.

The table that follows demonstrates the distribution of offenses according to offense level. Offenses were separated into offense levels according to the most serious offense contained within each ODR. As indicated below, 85.9% of offenses committed by prisoners who were found guilty of an offense during their last term of incarceration included in the analyses reported herein were low-level (level 300 or 400) offenses.

Table 403. Frequency of Sample by Offense Level

Offense Level	n	%	Cumulative %
Level 100	945	2.2%	2.2%
Level 200	3,260	7.7%	9.9%
Level 300 (301-fighting only)	1,810	4.3%	14.1%
Level 300 (301-fighting not included)	21,959	51.5%	65.6%
Level 400	14,663	34.4%	100%
Totals	42,637	100%	

Separate analyses on subsets of the sample separated by offense level were conducted to test the hypothesis, providing for more precision than the alternative approach of utilizing offense level as an independent variable in an analysis of the total sample.

Precision was increased as the analyses accounted for the policy constraints that bind a prison's Program Unit and Adjustment Committee's discretion over severity of disciplinary sanctions, and held constant the influence of offense level to examine variation between and within prisons for a specific level of offense. Consistent with this approach, numerous researchers have asserted that parsing out offenses by offense type, such as person, property, disorder, etc. allows for more nuanced findings as to the influence of independent variables upon dependent variables when examining prisoner misconduct on the prison disciplinary process (Bales & Miller, 2012; Bonner, Rodriguez, & Sorenson, 2017; Butler & Steiner, 2017; Camp, Gaes, Langan, & Saylor, 2003; Griffin & Hepburn, 2006; Steiner & Cain, 2017; Steiner & Wooldredge, 2009). The analyses reported herein deviates from the norm in that offenses are parsed by offense level rather than offense type, similar to the approach taken by Steiner & Cain (2017). As previously discussed, offense level denotes the severity of an offense as determined by prison officials, whereas offense type represents the nature of the offense.

In Illinois, the severity of disciplinary sanctions each prison's Adjustment Committee and Program Unit may impose on prisoners according to Department Rule 504 (DR 504) mostly vary by offense level rather than individual offense, and the difference in the sanctions that can be imposed between, rather than within each offense level is stark. Offense level is designated by the first number in a three-number sequence used to identify offenses. Thus, offenses are separated into offense levels by IDOC officials and Illinois' lawmakers when offenses contained within DR 504 are numbered during the JCAR administrative rule making process. Offense levels reflect prison official's estimation of the extent to which each offense listed within DR 504 adversely impacts a safe and functional carceral setting. The offense levels included in the final sample range from level 100 to level 400, or most serious offense level to least serious

offense level. Level 100 consist of a group of offenses considered to be the most threatening to the safety and security of a prison, while level 400 consist of a group of the offenses considered to be the least threatening to safety and security. The table below illustrates the differences in potential disciplinary sanctions by offense level.

Table 404. Median Sanction Possible for Offense Level by Sanction Type

Offense Level	Sanction Type			
	Loss or Restriction of Privileges	B or C Grade	Good Time Revocation	Segregation
Level 100	360 days	360 days	360 days	360 days
Level 200	180 days	180 days	180 days	180 days
Level 300 (301-fighting only)	30 days	30 days	30 days	30 days
Level 300 (301-fighting not included)	90 days	90 days	90 days	90 days
Level 400	60 days	60 days	30 days	30 days

Substantial variance was observed in how the disciplinary sanctions were imposed by offense level as well. For example, 12.2% of prisoners found guilty of a level 400 offense were placed in disciplinary segregation as a sanction, although a prisoner could be placed in disciplinary segregation for any level 400 offense. In comparison, almost all (96.6%) of prisoners found guilty of committing a level 100 offense, the most serious offense level category, were placed in disciplinary segregation as a sanction. The tables below illustrate the frequency of various disciplinary sanctions imposed upon prisoners separated by offense level, and the median sanction imposed upon prisoners separated by offense level. Counts for each offense level were reported in Table 403 of this chapter.

Table 405a. Percentage of Prisoners Who Received Sanction: Offense Level by Sanction Type

Offense Level	Sanction Type					
	Loss or Restriction of Privileges	B or C Grade	Good Time Revocation	Segregation	Verbal Warning	% of Sample
Level 100	52.8%	93.4%	48.1%	96.6%	0.0%	2.2%
Level 200	58.3%	59.3%	11.0%	50.7%	6.9%	7.7%
Level 300 (301-fighting only)	37.0%	87.8%	23.0%	98.6%	0.1%	4.3%
Level 300 (301-fighting not included)	57.3%	21.2%	1.0%	12.9%	24.8%	51.5%
Level 400	44.8%	15.2%	1.5%	12.2%	40.0%	34.4%
Of the sanction types listed above, only Verbal Warning is single outcome sanction. A prisoner may have one or more of the other sanction types imposed upon them other than Verbal Warning, in any combination, after being found guilty of an offense.						

Table 405b. Median Sanctions Imposed on Prisoners: Offense Level by Sanction Type

Offense Level	Sanction Type				
	Loss or Restriction of Privileges*	B or C Grade	Good Time Revocation	Segregation	% of Sample
Level 100	N/A	90 days	0 days	90 days	2.2%
Level 200	N/A	30 days	0 days	3 days	7.7%
Level 300 (301-fighting only)	N/A	30 days	0 days	30 days	4.3%
Level 300 (301-fighting not included)	N/A	0 days	0 days	0 days	51.5%
Level 400	N/A	0 days	0 days	0 days	34.4%
* quantifying Loss or Restriction of Privileges by days was not feasible given the structure of this variable as it was recorded in the disciplinary data set provided by IDOC					

Additionally, the influence of some independent variables upon the dependent variables significantly varied by offense level category. For example, analyses conducted on level 300 and level 400 offenses suggested that how an offense was classified (major or minor) by a prison's shift supervisor had a strong influence upon whether or not a prisoner solely received a verbal warning or loss or restriction of privileges as a disciplinary sanction. All level 100 and level 200 offenses are automatically classified as major offenses per IDOC policy (IDOC, 2017), thereby

rendering “offense classification” moot as a predictor variable for level 100 and level 200 offenses. For offense levels subjected to the analyses (level 300 and 400), the prominence of select independent variables as predictors of the dependent variables varied according to offense level as well.

The offense 301—Fighting was separated from the other level 300 offenses for several reasons. First, prisoners found guilty of this offense were placed in disciplinary segregation as a sanction almost all of the time (98.6%), versus relatively few (12.9%) disciplinary segregation placements for all other level 300 offenses. Second, the maximum amount of days a prisoner could be placed in disciplinary segregation as a sanction for 301—Fighting according to DR 504 was capped at 30 days, whereas the median of maximum number of days segregation that could have been imposed for all other level 300 offenses was 90 days. Third, 301—Fighting was unique in that the majority of prisoners (73.5%) found guilty of this offense were placed in disciplinary segregation for the maximum amount of days (30) allowed by DR 504. In comparison, the majority of prisoners (72.2%) found guilty of a level 100 offense, the offense level consisting of the most egregious offenses, were placed in disciplinary segregation for one-third or less of the maximum amount of days (360) allowed as a sanction by DR 504. In short, how 301—Fighting was addressed by Adjustment Committees and Program Units, and the possible sanctions for this offense per DR 504 made it an anomaly amongst the offense levels. Thus, it was separated from the other level 300 offenses because including 301-Fighting would have tainted the analyses by artificially inflating the severity of the sanctions received for level 300 offenses, in addition to unduly influencing the effect of key variables as indicated by statistical models.

Dependent Variables.

There were two binary outcomes used as dependent variables in the analyses of the prison disciplinary process applied to prisoners found guilty of 300 and 400 level offenses. The first dependent variable measured whether a prisoner received a “verbal warning (no = 0/yes = 1)” as a disciplinary sanction for an offense. A verbal warning was the least severe formal disciplinary sanction an Adjustment Committee or Program Unit could have imposed upon a prisoner. “Verbal warning (no/yes)” is a true dichotomous outcome measure. If a prisoner received a verbal warning as a disciplinary sanction, they did not have any other disciplinary sanction imposed upon them in response to an offense.

The second dependent variable measured whether a prisoner received “loss or restriction of privileges only (no = 0/yes = 1)” as a disciplinary sanction. “Loss or restriction of privileges only = yes” was the second least severe formal disciplinary sanction an Adjustment Committee or Program Unit may impose upon a prisoner. If the outcome of the prisoner received “loss or restriction of privileges only” dependent variable was no, the prisoner received at least one of the other disciplinary sanctions possible under DR 504 other than a verbal warning, including, but not limited to segregation, grade reduction, or loss of good time. Thus, in this instance, “loss or restriction of privileges only = yes” (coded as 1) meant that a prisoner had a less severe disciplinary sanction imposed upon them in comparison to prisoners who received another sanction(s) (“loss or restriction of privileges only = no” (coded as 0)). “Loss or restriction of privileges only (no/yes)” is also true dichotomous outcome measure. If a prisoner received a loss or restriction of privileges only as a disciplinary sanction, they did not have any other disciplinary sanction imposed on them in response to an offense.

The offenses included in the analyses that utilized “loss or restriction of privileges only (no/yes)” as a dependent variable were limited to level 300 or 400 offenses that did not result in a verbal warning as a disciplinary sanction. Thus, the dependent variable “verbal warning (no/yes)” served the dual role of dependent variable and filter, as the analyses of offenses that utilized “loss or restriction of privileges only (no/yes)” as a dependent variable were limited to offenses that did not result in a verbal warning as a disciplinary sanction.

Primary Independent Variable—Prison (Single-level Logistic Regression)/Grouping Variable (Multi-Level Logistic Regression).

Prison: It was expected that the cultural norms unique to each prison would be reflected by prison officials’ patterned responses to offenses (Butler & Steiner, 2017; Logan, et al, 2017; Steiner & Cain, 2017). Therefore, it was also expected that a pattern would manifest in the results of analyses of disciplinary sanctions imposed upon similarly situated prisoners who had been found guilty of similar offenses, suggesting that how the IDOC disciplinary process was effectuated differed according to the prison in which the disciplinary process occurred. Thus, the prison in which the disciplinary hearing was conducted regarding an offense served as the primary independent variable in single-level logistic regression models, and the grouping variable in the multi-level logistic regression models. “Prison” is a categorical variable with 27 possible values indicating the prison in which a prisoner was subjected to the disciplinary process in response to an offense. As a grouping variable in the multi-level statistical models, prisoners nested within the 27 prisons were grouped according to the prison in which a prisoner was subjected to the disciplinary process in response to an offense. The 27 prisons were anonymized throughout the reported results, with the actual names of these prisons relabeled as P1 through P27.

The variables described below were used in bivariate statistical tests, served as covariates in single-level logistic regression models, and as individual-level effects in the multi-level logistic regression models throughout the analyses of level 300 and 400 offenses. These variables can be divided into two categories, legal and extralegal factors. Variables representing legal factors measured characteristics of an offense and the disciplinary history of a prisoner. Variables representing extralegal factors measured the demographic characteristics of a prisoner and other variables not directly related to the disciplinary offense, such as “subject to Truth in Sentencing (T.I.S.)” and “street gang status” (Butler & Steiner, 2017; Logan, et al, 2017; Steiner & Cain, 2017). The theoretical relevance of all independent variables included in the analyses as they relate to disciplinary sanctions imposed on prisoners was supported by empirical literature concerning prisoner misconduct and the prison disciplinary process.

Prior to being included in the single-level and multi-level statistical models, all covariates/individual-level effects were subjected to bivariate statistical tests to ensure that multicollinearity amongst these variables was not problematic. All such bivariate statistical tests resulted in a Pearson’s r (absolute value), Phi (absolute value), or Cramer’s V value of 0.393 or less.

As stated in the literature review chapter of this work, the focal concerns perspective as applied to the prison disciplinary process posits that prison officials’ three primary concerns when imposing disciplinary sanctions are the blameworthiness of the prisoner, preservation of the safety and security of the prison community, and the ramifications of disciplinary sanctions upon both prisoners and the prison that prison officials operate (Butler & Steiner, 2017; Hartley, Maddan, & Spohn, 2007; Logan, et al, 2017; Steiner & Cain, 2017).

The covariates/individual-level effects listed below may be tied to one or more of the three concerns listed above. The concern or concerns measured by the variables will be noted within the description of each. As observed by Harley, Madden, and Spohn, it is problematic when a single variable can be a measure of more than one concept, as this inhibits casual attribution between the three specific concerns and the variables used to measure the effects of these concerns (2007). However, the focal concerns perspective literature can be furthered by research findings that suggest both the existence of a causal relationship between the variables listed below and dependent variables measuring the severity of disciplinary sanctions, and the existence of substantial variance in the severity of sanctions imposed between prisons.

Independent Variables Representing Extralegal Factors (Covariates in Single-Level Logistic Regression/Individual-Level Effects in Multi-Level Logistic Regression Models).

Age at time of offense: This variable was a prisoner's age, measured in years, on the day the offense occurred. "Age at time of offense" is a continuous variable. There are two justifications for including this variable in the analyses. First, IDOC policy requires Adjustment Committees and Program Units to take a prisoner's age into consideration prior to imposing a disciplinary sanction (IDOC, 2017). Second, the empirical literature suggests that there is an inverse relationship between a prisoner's age and their propensity to engage in misconduct. Or, simply put, the older a prisoner gets, the less likely they are to commit offenses (Bales & Miller, 2012; Bonner, Rodriguez, & Sorensen, 2017; Camp, Gaes, Langan, & Saylor, 2017; Ellison, Steiner, Brennan, & Chenane, 2016; Griffin & Hepburn, 2006; Steiner, Butler, & Ellison, 2014; Steiner & Wooldredge, 2009).

In relation to the focal concerns perspective as applied to the prison disciplinary process, prisoners who are perceived to be more likely to engage in misconduct (e.g. younger prisoners)

may receive harsher disciplinary sanctions due to prison officials' interest in preserving the safety and security of the prison community. However, it is possible that this effect may be somewhat mitigated by one of the other three concerns, blameworthiness of the prisoner. This assumes that prison officials believe younger prisoners to be not as aware of prison rules in comparison to older prisoners.

The findings of the empirical literature were mixed concerning the effect of "age at time of offense" as a variable upon the severity of disciplinary sanctions imposed. Age had no statistically significant effect upon how severely prisoners were sanctioned in two studies (Logan, et al, 2017, Steiner & Cain, 2017), but the findings of two other studies suggested that there was an inverse relationship between a prisoner's age and how severely prisoners are sanctioned for disciplinary sanctions (Butler & Steiner, 2017; Flanagan, 1982).

Sentence: this variable reflected the total length of the court imposed prison term a prisoner *actually served*, measured in days. "Sentence," measured in days, was not normally distributed for any group of prisoners/offenses analyzed (skew value well above 1 or below -1). Thus, a mutated length of sentence variable was created by logarithmically transforming length of sentence in days to achieve a normal distribution so the underlying assumptions/requirements of bivariate statistical tests, and single-level and multi-level statistical models would not be violated.

As "sentence" underwent a logarithmic transformation prior to this variable being subjected to bivariate statistical tests and insertion into single-level and multi-level statistical models, the ability to gauge the effect of this variable upon the dependent variables was limited but the results were informative nonetheless. The statistical tests and models indicated if a statistically significant relationship existed between the logarithmically transformed "sentence"

variable and the dependent variables. Additionally, if a statistically significant relationship existed, the results of the single-level and multi-level statistical models indicated the direction of a relationship. For example, it could be reported that the odds of a prisoner receiving a type of disciplinary sanction increased as the length of sentence served increased, but it could not be said that for every one day increase in sentence served, the odds of a prisoner receiving a harsher disciplinary sanction increased/decreased by x amount in this instance.

This variable was included because the empirical literature suggested that a correlation exists between length of sentence served and prisoner's likelihood committing offenses (Bales & Miller, 2012; Griffin & Hepburn, 2007), and that length of sentence influences the severity of disciplinary sanction imposed on prisoners (Butler & Steiner, 2017). Thus, it is possible this variable was related to the focal concern of preservation of the safety and security of the prison community.

Race: a prisoner's racial identity as specified by IDOC is a categorical variable indicating if a prisoner who committed an offense was Black, Hispanic, Other, or White. The findings of empirical literature concerning the effect of race on prisoner misconduct were nuanced. The literature suggested that a prisoner's race was correlated with the likelihood of a prisoner committing an offense, but the linkage between race and offenses differs by type of offense, such as violent, drug, or property (Bales & Miller, 2012; Bonner, Rodriguez, & Sorensen, 2017; Ellison, Steiner, Brennan, & Chenane, 2016; Gendreau, Goggin, & Law, 1997; Griffin & Hepburn, 2006; Pool & Regoli, 1980; Steiner, Butler, & Ellison, 2014; Steiner & Wooldredge, 2009).

Thus, it is possible that this variable was related to the focal concern of preservation of the safety and security of the prison community, as prison officials may perceive select racial

groups to be more threatening than others. However, it was also possible that the focal concern of ramifications of disciplinary sanctions upon both prisoners and the prison may come into play in this instance, as prison officials may avoid disparate treatment of minority groups because prisoners may be more likely to commit offenses if they perceive the disciplinary process to be illegitimate (Steiner & Cain, 2017).

Literature specific to the prison disciplinary process suggested that the effect of race upon the severity of disciplinary sanctions imposed is mitigated or nullified after controlling for the influence of variables representing the legal factors associated with an offense (Butler & Steiner, 2017; Logan, et al, 2017; Steiner & Cain, 2017).

Street Gang Status: IDOC attempts to track if a prisoner is a member of a recognized security threat group (STG), the official IDOC terminology for street gang. IDOC classified prisoners into two categories in the exit file dataset in this regard, inactive (prisoner identified as an STG member, but no longer engages in STG related activities) and active (prisoner identified as an STG member who engages in STG related activities). This variable was modified so that missing values in the exit file dataset were converted to unknown. IDOC did not classify prisoners as being unaffiliated with an STG (not a known gang member) in the exit file dataset.

“Street gang status” is a categorical variable indicating if IDOC considered a prisoner to be an active STG member, inactive STG member, or unknown. Empirical literature concerning the relationship between STG membership and prisoner misconduct suggested a correlation between the two (Griffin & Hepburn, 2006), and that a prisoner’s STG status has an effect upon the severity of disciplinary sanctions imposed for offenses (Steiner & Cain, 2017).

This variable may be related to the focal concern of preservation of the safety and security of the prison community, as STG’s are perceived to be a threat by prison officials

(Griffin & Hepburn, 2006; Steiner & Cain, 2017). Additionally, this variable may be related to the focal concern of blameworthiness of the prisoner, as prison officials may be more likely to attribute the commission of an offense to personal traits rather than environmental factors when a prisoner is an STG member (Steiner & Cain, 2017).

Subject to Truth In Sentencing (T.I.S.): This variable was used as a proxy measure for severity of the criminal offense that resulted in the prisoner being subjected to a term of imprisonment by a sentencing court. It is a dichotomous categorical variable with a possible value of no or yes. Although not all criminal offenses resulting in a person being victimized are subject to the T.I.S. guidelines requiring a prisoner to serve a minimum of 100%, 85%, or 75% of their term of imprisonment, the criminal offenses deemed to be the gravest according to the Illinois Legislature are subject to T.I.S. The majority of criminal offenses subject to T.I.S in Illinois are considered to be amongst the most egregious, such as murder, sexual assault, and other acute acts of violence. This variable was included in the analyses to gauge the effect of the seriousness of a prisoner's criminal offense for which they were incarcerated upon the severity of the disciplinary sanctions imposed, a common practice employed by researchers (Butler & Steiner, 2017; Steiner & Cain, 2017).

This variable may be related to two focal concerns, blameworthiness of the prisoner and preservation of the safety and security of the prison community. Steiner and Cain opined that prison officials may be more likely to view prisoners who are in prison for a very serious criminal offense as being more culpable for an offense (i.e. rule violation) committed in prison. Also, these prisoners may be viewed as a greater threat to safety and security due to the criminal offense that resulted in their incarceration (2017).

Of the prisoners found guilty of a level 300 or 400 offense included in the final sample, 43 prisoners had a missing value corresponding with the “subject to T.I.S.” variable in the exit file dataset. All missing values were converted to a value of yes, signifying that they were subject to T.I.S. Every prisoner with a missing value for “subject to T.I.S.” in the exit file dataset had served a life sentence without the possibility of parole. A life sentence without the possibility of parole is analogous to being subject to T.I.S., as every prisoner who served a court imposed life sentence served 100% of their court imposed sentence. Additionally, and most relevant to the concept this variable measured, a life sentence is imposed by a sentencing court for the most serious criminal offenses.

Independent Variables Representing Legal Factors (Covariates in Single-Level Logistic Regression/Individual-Level Effects in Multi-Level Logistic Regression Models).

All of the covariates/individual-level effects representing legal factors listed below may be related to the focal concerns of blameworthiness of a prisoner or preservation of the safety and security of the prison community, or both, as these variables are measures of severity of offense or offense history (i.e. history of violating prison rules) (Butler & Steiner, 2017; Steiner & Cain, 2017). More serious offenses may be viewed as greater threats to safety and security. A prisoner with a history of committing offenses may cause prison officials to view the prisoner as being more blameworthy for their offense due to them previously being subjected to the prison disciplinary process. Additionally, a labeling effect may result from a prisoner being sanctioned for an offense where the prisoner is thereafter viewed as a posing a threat to safety and security, especially if the prisoner has a violent offense history (Steiner & Cain, 2017).

Number of offenses this ODR: “Number of offenses this ODR” is a dichotomous, partially ordered quantitative variable with a possible true value of one (coded as 1), or two or

more (coded as 2). “Number of offenses this ODR” indicates how many offenses listed within an Offender Disciplinary Report (ODR) a prisoner was found guilty of committing, including the offense resulting in a prisoner’s disciplinary sanction. This approach was similar to Steiner and Cain’s use of a dichotomous multiple violations variable in their research concerning the prison disciplinary process (2017).

Offense classification: “Offense classification” is a dichotomous, partially ordered variable with a possible value of minor (coded as 0) or major (coded as 1). Major offenses were coded greater than minor in this instance, as major indicates an increase in perceived seriousness of an offense as determined by a prison’s shift supervisor. The shift supervisor’s determination as to seriousness of offense should be based on the specific facts, i.e. the narrative describing each offense listed within an ODR. All offenses included in the analyses of level 300 and 400 offenses were formally classified as either minor or major by the shift supervisor of the prison in which the offense occurred (IDOC, 2017).

If an offense was classified as major, the offense was addressed by a prison’s Adjustment Committee. An Adjustment Committee may impose any disciplinary sanction upon a prisoner allowed by DR 504. If an offense was classified as minor, the offense was addressed by a prison’s Program Unit. A Program Unit may impose any disciplinary sanction allowed by DR 504 other than disciplinary segregation or loss of good time (IDOC, 2017).

The analyses reported within this work were not rendered invalid due to the sample including prisoners sanctioned by Adjustment Committees and Program Units for several reasons. One, the dependent variables “verbal warning (no/yes)” or “loss or restriction of privileges only (no/yes)” accurately measured sanctions that could have been imposed by either an Adjustment Committee or Program Unit. Any prisoner included in the sample who did not

receive a verbal warning or loss or restriction of privileges only as a sanction had a harsher disciplinary sanction imposed upon them. The only distinction between prisoners who were sanctioned by a Program Unit rather than an Adjustment Committee was that the harsher disciplinary sanction could not have included disciplinary segregation or loss of good time.

The possible outcomes of the dependent variable “loss or restriction of privileges only” were no and yes. If the outcome of the dependent variable “loss or restriction of privileges only” was no, this indicated that a prisoner received a sanction harsher than a verbal warning or a loss or restriction of privileges alone. The dependent variable does not measure the degree of severity of the sanctions imposed upon prisoners that were harsher than a verbal warning or a loss or restriction of privileges. Any attempt to measure the degree of severity of the sanction imposed upon a prisoner that was harsher than a verbal warning or a loss or restriction of privileges would have relied on the subjective standards of the researcher, which is not appropriate in this instance. For example, the researcher may believe 30 days of loss of good time to be a harsher sanction than 15 days of disciplinary segregation. However, not all prisoners subjected to such sanctions will agree with the researcher’s opinion.

Finally, the decision as to how an offense was classified represented both the shift supervisor’s discretionary authority to label a given offense as a serious incident, and their discretion over which disciplinary committee adjudicated an offense. Thus, at this stage of the disciplinary process, the shift supervisor may have influenced the severity of the disciplinary sanction imposed upon a prisoner in two ways.

As it was not possible to gauge the seriousness of an offense independent of a shift supervisor’s classification of the offense in this instance, or gauge severity of a sanction beyond the dichotomous outcome of the dependent variables, there was little if any cause to parse

offenses according to how an offense was classified (minor or major). On the contrary, using the “offense classification” variable to parse offenses rather utilizing “offense classification” as an independent variable would have severely hindered the analyses. The influence of “offense classification,” a variable representing a key point in the disciplinary process at which the discretionary authority of prison officials was exercised, upon the dependent variables would not have been accounted for if “offense classification” was not included in the analyses as an independent variable. Also, it was unknown if the IDOC employees who served on the Adjustment Committee and Program Units at all prisons differed.

After reviewing numerous studies of prisoner misconduct and the prison disciplinary process, it appears that the “offense classification” variable may be unique to IDOC. Aside from an IDOC employee’s decision to issue an ODR to a prisoner and determination as to what offenses to include within the ODR, it could be argued that prison officials’ discretionary authority over how an offense is processed prior to a disciplinary hearing being conducted was most pronounced at this stage of the disciplinary process. Therefore, it is expected that “offense classification” will be highly predictive of the dependent variables in the analyses.

Prior level 100 violent offense (current incarceration): This is a dichotomous, partially ordered quantitative variable with a possible value of no (coded as 0) or yes (coded as 1). No represents a true value of zero, and yes indicates a value of one or more. “Prior level 100 violent offense” indicates whether or not a prisoner had been found guilty of committing a level 100 violent offense(s) during the same term of incarceration in which the offense subjected to the analyses occurred. As a continuous measure, the values of this variable ranged from zero to 25, and were not normally distributed as indicated by a skewness value of 32.86. Therefore, “prior

level 100 violent offense” was converted into the dichotomous measure used throughout the analyses.

Level 100 violent offenses include physical assaults upon staff or other prisoners. The work of Logan, et al. suggested that a prisoner with a disciplinary history including an incident(s) of violent conduct is more likely to be severely sanctioned for an offense (2017). Also, IDOC policy dictates that Adjustment Committees and Program Units must consider a prisoner’s prior disciplinary history when imposing a disciplinary sanction (IDOC, 2017). Therefore, it is expected that this variable will have an effect upon the severity of the disciplinary sanctions imposed for offenses included in the analyses reported herein.

Found guilty of any prior offense (current incarceration): This is a dichotomous, partially ordered quantitative variable with a possible value of no (coded as 0) or yes (coded as 1). No represents a true value of zero prior offenses, and yes indicates a value of one or more prior offenses committed during the same term of incarceration in which the offense subjected to the analyses occurred. As a continuous measure, the values of this variable ranged from zero to 173, and were not normally distributed as indicated by a skewness value of 4.95. Therefore, “found guilty of any prior offense” was converted into the dichotomous measure that was used throughout the analyses.

This variable is expected to influence of the severity of sanction imposed for an offense, as the empirical literature focusing on prison disciplinary practices suggested the existence of a strong relationship between a prisoner’s disciplinary history and severity of sanction imposed (Butler & Steiner, 2017; Flanagan, 1982; Logan, et al, 2017; Steiner & Cain, 2017). Also, IDOC policy dictates that Adjustment Committees and Program Units must consider a prisoner’s prior disciplinary history when imposing a disciplinary sanction (IDOC, 2017).

Placed in disciplinary segregation prior to this offense (current incarceration): This is a dichotomous, partially ordered quantitative variable with a possible value of no (coded as 0) or yes (coded as 1). No represents a true value of zero, and yes indicates a value of one or more. This variable indicates whether or not a prisoner was previously placed in segregation as a disciplinary sanction during the same term of incarceration in which the offense subjected to the analyses occurred. As a continuous measure, the values of this variable ranged from zero to 85, and were not normally distributed as indicated by a skewness value of 12.16. Therefore, “placed in disciplinary segregation prior to this offense (current incarceration)” was converted into the dichotomous measure that was used throughout the analyses.

Just as research of sentencing practices in Illinois suggest that having served a prior prison sentence is predictive of a person’s likelihood of being sentenced to another term of imprisonment for any felony offense that occurs after this person has been imprisoned at least once (Olson & Stemen, 2019), it is expected that this variable will influence the severity of disciplinary sanctions imposed on prisoners. Disciplinary segregation is one of the harshest sanctions a prisoner may receive. Therefore, if a prisoner has previously been placed in segregation for prior offenses, it is likely that they will face harsher disciplinary sanctions than prisoners who have not previously been placed in disciplinary segregation.

Placed in disciplinary segregation during prior incarceration(s): This is a dichotomous, partially ordered quantitative variable with a possible value of no (coded as 0) or yes (coded as 1). No represents a true value of zero, and yes indicates a value of one or more. This variable indicates if a prisoner has been placed in disciplinary segregation as a sanction during a term of incarceration in IDOC prior to their last incarceration as documented within the exit file dataset. As a continuous measure, the values of this variable ranged from zero to 260,

and were not normally distributed as indicated by a skewness value of 25.43. Therefore, “placed in disciplinary segregation during prior incarceration(s)” was converted into the dichotomous measure that was used throughout the analyses.

The purpose of including this variable in the analyses was twofold. One, it served a proxy measure of criminal history, as any prisoner falling within the yes category served at least one term of incarceration prior to their last incarceration as documented within the exit file dataset. Empirical literature focusing on prison disciplinary practices suggested that a prisoner with a prior history of incarceration is more likely to have a harsher disciplinary sanction imposed upon them in comparison to prisoners who have not been previously incarcerated (Butler & Steiner, 2017; Logan, et al, 2017; Steiner & Cain, 2017).

Two, this variable was included in the analyses to test the effect of a prisoner’s disciplinary history during a prior term of incarceration upon the severity of disciplinary sanctions imposed for offenses committed during the last incarceration as documented within the exit file dataset. According to IDOC, a prisoner’s disciplinary history from a prior incarceration should not be considered by an Adjustment Committee or Program Unit when a prisoner is sanctioned for an offense (2017). Thus, if IDOC policy was being properly implemented by Adjustment Committees and Program Units, it is expected that the effect of this variable upon the dependent variable will be mild at most.

Gender was not included as a variable in the analyses. Gender is included in most social science research as a matter of course, and empirical literature focusing on prison disciplinary practices suggest that males are more likely receive a harsh disciplinary sanction in comparison to female prisoners in response to similar offenses (Butler & Steiner, 2017; Logan, et al, 2017; Steiner & Cain, 2017). However, gender was not a viable independent variable when “prison”

was also included as an independent variable. Males and females included in the sample were incarcerated in prisons exclusively purposed by IDOC for the incarceration of either male or female prisoners from SFY 2010 to SFY 2014.

Therefore, gender as a variable could not have measured the effect of an individual prisoner's gender upon disciplinary sanctions when included in single-level or multi-level statistical models that also included "prison" as a variable. The statistical models would interpret gender as two groups of prisons, prisons housing males and prisons housing females. Gender could have been used as a group-level variable in a multi-level statistical models, as gender was a trait shared by all individual prisoners nested within a given prison. As explained earlier, however, the multi-level dataset did not have the number of groups required at the group-level to test for interaction effects of group-level variables upon the dependent variables.

CHAPTER FIVE

RESULTS: SECTION A

This section of Chapter Five provides an overview of level 300 offenses, the possible disciplinary sanctions for these offenses, and the disciplinary sanctions imposed upon the prisoners found guilty of committing them. As indicated in the Methods chapter of this work, the offense 301—Fighting is not included with other level 300 offenses in the analyses reported in Chapter Five. The official definition of individual offenses according to IDOC can be found in Appendix A.

Three offenses, 304—Insolence, 307—Unauthorized Movement, and 308—Contraband or Unauthorized Property constituted the majority (87.2%) of all level 300 offenses prisoners included in the sample were found guilty of committing. The most frequent offense was 307—Unauthorized Movement (36.9%), followed by 304—Insolence (26.1%), and 308—Contraband or Unauthorized Property (24.2%). The remaining seven offenses constituted 12.8% of the level 300 offenses prisoners in the sample were found guilty of committing.

Table 501. Level 300 Offenses: Specific Offenses by Frequency of Offenses

Offense Number	Offense Description	n	% within level 300 offenses	% within all offenses
302	Gambling	189	0.9%	0.4%
303	Giving False Information to an Employee	928	4.2%	2.2%
304	Insolence	5,723	26.1%	13.4%
305	Theft	1,201	5.5%	2.8%
306	Transfer of Funds	73	0.3%	0.2%
307	Unauthorized Movement	8,111	36.9%	19.0%
308	Contraband or Unauthorized Property	5,323	24.2%	12.9%

309	Petitions, Postings, and Business Ventures	16	0.1%	0.0%
310	Abuse of Privileges	392	1.8%	0.9%
311	Failure to Submit to Medical or Forensic Test	3	0.0%	0.0%
Totals		21,959	100%	51.5%

Table 502 details possible disciplinary sanctions for specific offenses according to Department Rule 504 (DR 504). Not all possible disciplinary sanctions are listed within Table 502, a replica of the official table listed in section 504 of 20 Ill. Adm. Code. Sanctions such as verbal warning, restitution, and others are listed within the text of DR 504. As demonstrated by Table 404 in the Methods chapter (page 35) and Table 502 below, possible disciplinary sanctions for offenses vary between offense levels more so than within offense levels. The median and mean sanction for the disciplinary sanctions imposed upon prisoners found guilty of a level 300 offense listed in days are also reported within Table 502.

Table 502. Level 300 Offenses: Specific Offense by Maximum Possible Sanction for Offense

Offense Number	Offense Description	Maximum Sanctions for Level 300 Offenses by Type			
		Loss or Restriction of Privileges	B or C Grade	Good Time Revocation	Segregation
302	Gambling	60 days	60 days	30 days	30 days
303	Giving False Information To An Employee	90 days	90 days	90 days	90 days
304	Insolence	90 days	90 days	30 days	30 days
305	Theft	180 days	180 days	90 days	90 days
306	Transfer Of Funds	90 days	90 days	90 days	90 days
307	Unauthorized Movement	60 days	60 days	60 days	60 days
308	Contraband or Unauthorized Property	90 days	90 days	90 days	90 days
309	Petitions, Postings, and Business Ventures	180 days	180 days	90 days	90 days
310	Abuse Of Privileges	90 days	90 days	90 days	90 days
311	Failure To Submit To Medical Or Forensic Test	90 days	90 days	90 days	90 days
Median sanction possible by type		90 days	90 days	90 days	90 days

Summary of sanctions listed within DR 504 table imposed in response to level 300 offenses				
Median sanction per type received by level 300 offenders	N/A*	0 days	0 days	0 days
Mean sanction per type received by level 300 offenders	N/A*	8 days	.5 days	3 days
Skewness/kurtosis values per sanction type listed		2.48/6.39	14.30/ 218.91	5.24/33.42
* quantifying Loss or Restriction of Privileges by days was not feasible given the structure of this variable as it was recorded in the disciplinary data set provided by IDOC				

Tables 503 and 504 demonstrate the frequency of the disciplinary sanctions used as dependent variables in the analyses of the level 300 offenses reported in Chapter Five: Results—B & C.

Table 503. Level 300 Offenses: Frequency of Disciplinary Sanctions Used as Dependent Variables

Sanction Imposed	n	%	Cumulative %
Verbal warning	5,450	24.8%	24.8%
Loss or restriction of privilege(s) only	9,249	42.1%	66.9%
Other (harsher) sanction imposed	7,260	33.1%	100%
Totals	21,959	100%	

Details concerning the bivariate statistical tests used in the analysis reported below can be found in the Methods chapter of this work beginning on page 24. As stated in the Methods chapter, all requirements were met for valid Chi-squared used throughout this analysis.

Results of the bivariate statistical analyses reported in Table 504 suggested the existence of a statistically significant association between level 300 offenses and both of the dependent variables, “verbal warning (no = 0/yes = 1)” and “loss or restriction of privileges only (no = 0/yes = 1)” ($p < .001$). The strength of the association between offense and both dependent variables were moderate with Cramer’s V values of 0.181 and 0.208 respectively.

The purpose of including of Table 504 in this instance was to provide additional insight into the application of disciplinary sanctions imposed for level 300 offenses, as offense was not included as a variable in the statistical models reported herein so the models would be

parsimonious, effective tools for accomplishing the objective of this research. The inclusion of level 300 offenses as a variable into the statistical models did not measurably enhance the predictive validity of the models, alter the magnitude of effect of other variables upon the dependent variables, nor are individual offenses theoretically relevant to the stated research objective in and of themselves.

Table 504. Level 300 Offenses: Specific Offense by Frequency of Disciplinary Sanctions Used as Dependent Variables

Offense Number	Offense Description	n	% Received Verbal Warning Only	% Received Privilege Loss Only	% Received Other Sanction(s)
302	Gambling	189	5.3%	43.4%	51.3%
303	Giving False Information To An Employee	928	18.5%	40.0%	41.5%
304	Insolence	5,723	17.4%	36.5%	46.1%
305	Theft	1,201	13.7%	38.1%	48.3%
306	Transfer Of Funds	73	2.7%	23.3%	74.0%
307	Unauthorized Movement	8,111	34.2%	44.0%	21.8%
308	Contraband or Unauthorized Property	5,323	23.4%	47.2%	29.3%
309	Petitions, Postings, and Business Ventures	16	0.0%	0.0%	100%
310	Abuse Of Privileges	392	20.9%	39.3%	39.8%
311	Failure To Submit To Medical Or Forensic Test	3	0.0%	0.0%	100%
Totals		21,959	24.8%	42.1%	33.1%
Results of bivariate statistical analyses for specific offenses and dependent variables: Verbal Warning (no/yes): $X^2 = 723.22$, $p < .001$; Cramer's $V = .181$, $p < .001$ Loss or restriction of Privileges only (no/yes): $X^2 = 713.96$, $p < .001$; Cramer's $V = .208$, $p < .001$					
Totals equal 100% for three sanction types listed in table for each offense					

Tables 505a through 505c show the frequency and severity of disciplinary sanctions imposed upon prisoners who were found guilty of a level 300 offense not specified within Chapter Five: Results—B & C of this work. The following disciplinary sanctions were imposed upon the 7,260 prisoners who did not receive a verbal warning or a loss or restriction of privileges only as a disciplinary sanction for a level 300 offense.

Table 505a. Level 300 Offenses: Good Time Revocation Summary

223 (1.0%) of prisoners found guilty of a level 300 offense lost good time as a sanction. The number of good time in days these prisoners lost is detailed below.			
Good time lost	n	%	Cumulative %
1 - 15 days	48	21.5%	21.5%
16 - 30 days	98	44.0%	65.5%
31 - 60 days	13	5.8%	71.3%
61 - 90 days	64	28.7%	100%
Totals	223	100%	

Table 505b. Level 300 Offenses: C Grade Summary

4,665 (21.2%) of prisoners found guilty of a level 300 offense had C Grade imposed upon them as a sanction. The number of days these prisoners were placed on C Grade status is detailed below.			
C Grade	n	%	Cumulative %
1 - 15 days	40	0.9%	0.9%
16 - 30 days	3,505	75.1%	76.0%
31 - 60 days	726	15.6%	91.6%
61 - 90 days	394	8.4%	100%
Totals	4,665	100%	

Table 505c. Level 300 Offenses: Segregation Summary

2,832 (12.9%) of prisoners found guilty of a level 300 offense were placed in disciplinary segregation as a sanction. The number of days these prisoners were placed in disciplinary segregation is detailed below.			
Disciplinary Segregation	n	%	Cumulative %
1 - 15 days	1,538	54.3%	54.3%
16 - 30 days	1,015	35.8%	90.1%
31 - 45 days	27	1.0%	91.1%
60 days	117	4.1%	95.2%
90 days	135	4.8%	100%
Totals	2,832	100%	

Additionally, 312 (1.4%) of prisoners found guilty of a level 300 offense received monetary restitution as a sanction. How much monetary restitution IDOC collected from prisoners who had this sanction imposed upon them is unknown because this information is not recorded within the disciplinary dataset.

It is important to note that the disciplinary sanctions listed above in Tables 505a through 505c are not mutually exclusive. A prisoner is subject to receive any combination of the sanctions allowed by DR 504 as a result of being found guilty of a level 300 offense. The only

mutually exclusive disciplinary sanctions that could have been imposed upon a prisoner found guilty of a level 300 offense were two values associated with the dependent variables used for the analyses, “verbal warning = yes (coded as 1)” and “loss or restriction of privileges only = yes (coded as 1)”. Also, Tables 505a through 505c merely report the sanctions imposed upon prisoners who received these sanctions. This must be considered when reading the tables, as the majority (66.9%) of prisoners found guilty of a level 300 offense had zero days of C grade, disciplinary segregation, or good time revocation imposed upon them as a disciplinary sanction. Failure to highlight this caveat may lead to misinterpretation of the reported sanctions. To be clear, the median of days of C grade, disciplinary segregation, or good time revoked in response to level 300 offenses were zero.

CHAPTER FIVE

RESULTS: SECTION B

The analyses reported within this Chapter Five: Results—B were conducted using a subset of the complete sample ($n = 42,637$), consisting of all prisoners who were found guilty of a level 300 offense ($n = 21,959$). The dependent variable of the analyses reported in this section measured whether a prisoner received a “verbal warning (no = 0/yes = 1)” as a disciplinary sanction for an offense. As explained in the Methods chapter, prisoners who were found guilty of 301—Fighting were not included in the analyses reported below.

This chapter was organized as follows: first, frequencies of the dependent variable and continuous independent variables representing extralegal factors were reported. Within this section, the composition of the sample of prisoners found guilty of a level 300 offense were compared to the composition of the population of prisoners who exited IDOC during SFY 2011 through the end of SFY 2014; second, the frequency of the primary independent variable of interest (prison) and the results of a bivariate statistical analysis of the relationship between this variable and the dependent variable were reported; third, the frequencies of categorical independent variables representing extralegal factors, and the results of bivariate statistical analyses of the relationship between these variables and the dependent variable were reported; fourth, the frequencies of partially ordered independent variables representing legal factors and the results of bivariate statistical analyses of the relationship between these variables and the dependent variable were reported; fifth, the results of single-level logistic regression models were reported; lastly, the results of the multi-level logistic regression model was reported.

A full description of the variables discussed herein may be viewed in pages 38 through 52 of the Methods chapter.

Table 506. Frequency of Dependent Variable: Verbal Warning (Level 300 Offenses)

	n	No	Yes
Verbal Warning	21,959	16,509	5,450
		75.2%	24.8%

Comparison of Subset of Sample Analyzed in this Chapter Five: Section—B to Population for Representativeness.

The similarities between key demographic identifiers such as the age and race of the population of prisoners who exited IDOC between SFY 2011 and 2014, all 91,846 prisoners contained within the exit file dataset, and the sample of 21,959 prisoners found guilty of a level 300 offense suggest that the sample is representative of the population the sample was drawn from.

The mean age of prisoners at the time they were found guilty of a level 300 offense was 34.24 years of age. The mean age of the population of prisoners who exited IDOC between SFY 2011 and 2014 was 34.65 years of age, a difference of approximately three months from the mean age of prisoners when they were found guilty of a level 300 offense. The mean amount of actual days of a prison sentence served by a prisoner found guilty of a level 300 offense (variable labeled “sentence”) was 764.92. The mean amount of actual days served by all prisoners contained within the exit file dataset was 531.55, a difference of -233.37 days or 7.65 fewer months.

The “sentence” variable was reported in the table below because it is a clearer indicator of the actual time served by prisoners than the logarithmically transformed version of the “sentence” variable that was used throughout the analyses reported herein. The actual amount of

time a prisoner served measured in days was not subjected to bivariate statistical analyses or inserted into the single-level or multi-level statistical models.

Table 507. Univariate Statistics of Continuous Independent Variables Representing Extralegal Factors (Level 300 Offenses)

Independent variables	n	mean	S.D.	Min.	Max.	Skewness	Kurtosis
Age at time of offense	21,959	34.24	10.92	17	85	.670	-.211
Sentence (in days) Log 10 transformation	21,959	2.65	.42	1.36	4.30	.430	.353
Sentence (in days)— <i>not used in analyses</i>	21,959	764.92	1,164.96	23	19,914	5.03	35.23

The figures reported in Table 508b demonstrate that the racial composition of the sample of prisoners who were found guilty of a level 300 offense is effectively identical to the racial composition of all prisoners who exited IDOC between SFY 2011 and 2014. The racial composition of all prisoners contained within the exit file dataset is 56.6% Black, 12.7% Hispanic, 0.5% other, and 30.2% White. The difference between the sample and the exit file dataset is as follows: Black -0.2%, Hispanic +0.3%, other +0.0%, and White -0.1%.

The figures reported in Table 508b concerning the number of prisoners sentenced under Truth In Sentencing (T.I.S.) guidelines by a criminal court included in the sample are representative of the prisoners contained within the exit file dataset. Of the prisoners contained within the exit file dataset, 4.3% were sentenced under T.I.S, a difference of 1.2% from the prisoners found guilty of a level 300 offense.

Bivariate Analyses; Frequencies of Variables Included in Bivariate Analyses, Single-Level and Multi-Level Logistic Regression Models.

Details concerning the bivariate statistical tests used in the analyses reported below can be found in the Methods chapter of this work beginning on page 24. As stated in the Methods chapter, all requirements were met for valid Chi-squared and t tests used throughout these analyses.

The Chi-squared test suggested that a statistically significant association existed between the prison in which a prisoner was subjected to the disciplinary process and whether or not a prisoner received a verbal warning as a disciplinary sanction ($X^2 = 1,764.46$; $p < .001$). The strength of the association between these two variables was strong, as indicated by the Cramer's V value of 0.283 ($p < .001$).

Overall, 24.8% of prisoners received a verbal warning as a disciplinary sanction in response to a level 300 offense across the 27 prisons included in the sample. Table 508a demonstrates that there was substantial variation in the percentage of level 300 offenses resulting in a verbal warning between prisons. When treated as a continuous variable, the percentage of verbal warnings issued across prisons was normally distributed (skewness = -0.113, kurtosis = -1.089) with values ranging from 1.4% (P16) to 44.4% (P2). The mean percentage of verbal warnings issued across prisons was 23.9%, and one standard deviation from the mean was $\pm 12.8\%$, a range of 25.6%. Thus, within 18 of the 27 prisons (approximately 68%) included in the sample, verbal warnings were used as a disciplinary sanction in response to 11.1% to 36.7% of level 300 offenses.

The strength of the association between the primary independent variable of interest (prison) and whether a verbal warning was imposed as a sanction for a level 300 offense supports the hypothesis that the severity of disciplinary sanctions imposed by prison officials will vary according to the prison in which a prisoner is subjected to the disciplinary process.

Table 508a. Bivariate Analysis: Prison (Primary Independent Variable) by Verbal Warning; Frequency of Prison (Level 300 Offenses)

Prison	n	Verbal Warning: No (n=16,509)	Verbal Warning: Yes (n=5,450)	Total: (n=21,959)	% of Sample
$X^2 = 1,764.46$, 26 df, $p < .001$; Cramer's $V = .283$, $p < .001$					
P1	635	78.6%	21.4%	100%	2.9%
P2	1,011	55.6%	44.4%	100%	4.6%
P3	971	68.8%	31.2%	100%	4.4%
P4	927	59.5%	40.5%	100%	4.2%
P5	1,377	95.4%	4.6%	100%	6.3%
P6	484	65.7%	34.3%	100%	2.2%
P7	1,686	67.0%	33.0%	100%	7.7%
P8	694	84.9%	15.1%	100%	3.2%
P9	547	77.1%	22.9%	100%	2.5%
P10	952	81.5%	18.5%	100%	4.3%
P11	866	58.2%	41.8%	100%	3.9%
P12	653	90.5%	9.5%	100%	3.0%
P13	706	70.8%	29.2%	100%	3.2%
P14	448	67.4%	32.6%	100%	2.0%
P15	1,149	68.1%	31.9%	100%	5.2%
P16	147	98.6%	1.4%	100%	0.7%
P17	580	92.9%	7.1%	100%	2.6%
P18	462	60.0%	40.0%	100%	2.1%
P19	847	82.6%	17.4%	100%	3.9%
P20	704	96.7%	3.3%	100%	3.2%
P21	1,369	66.0%	34.0%	100%	6.2%
P22	492	57.1%	42.9%	100%	2.2%
P23	127	78.7%	21.3%	100%	0.6%
P24	720	80.7%	19.3%	100%	3.3%
P25	1,377	77.5%	22.5%	100%	6.3%
P26	1,458	82.2%	17.8%	100%	6.6%
P27	570	92.5%	7.5%	100%	2.6%
Totals:	21,959	75.2%	24.8%	100%	100%

The t test indicated that there was a statistically significant difference in the mean age of prisoners who received a verbal warning compared to those who did not ($t = -14.72$, $p < .001$).

The test showed that on average, prisoners who received a verbal warning as a sanction for a level 300 offense were 2.5 years older than prisoners who did not receive a verbal warning. The Pearson's r test suggested the existence of a statistically significant association between "age at

time of offense” and the dependent variable ($p < .001$). Also, the direction of the association was positive, suggesting that an older prisoner was more likely to receive a verbal warning in response to a level 300 offense than a younger prisoner. The strength of association between these variables, however, was extremely weak with a Pearson’s r value of 0.10.

The t test also indicated that there was a statistically significant difference in the mean length of sentence actually served between prisoners who received a verbal warning compared to those who did not ($t = 3.48, p < .001$), with prisoners who received a verbal warning having served a shorter sentence compared to prisoners who did not receive a verbal warning. The Pearson’s r test suggested that a statistically significant association existed between the variable “sentence” and the dependent variable ($p < .001$). The strength of the association was extremely weak however ($r = -0.02$), with the negative Pearson’s r value suggesting an inverse relationship between the number of days a prisoner was imprisoned and the likelihood of receiving a “verbal warning” as a disciplinary sanction.

The Chi-square test indicated the existence of a statistically significant association between the dependent variable and the variables “race” ($X^2 = 47.34, p < .001$) and “street gang status” ($X^2 = 76.51, p < .001$). The strength of the association between these variables and the dependent variable were extremely weak, as suggested by Cramer’s V values of 0.046 ($p < .001$) for “race” and 0.059 ($p < .001$) for “street gang status.” The Chi-square test suggested the absence of a statistically significant association between the variable “subject to T.I.S.” and the dependent variable ($X^2 = 0.85, p = .357$).

Table 508b. Bivariate Analyses: Independent Variables Representing Extralegal Factors by Verbal Warning; Frequency of Variables Representing Extralegal Factors (Level 300 Offenses)

Dependent Variable (right) Independent Variables (below)	Verbal Warning: No (n=16,509)	Verbal Warning: Yes (n=5,450)	Total: (n=21,959)	% of Sample
Age at time of offense:	$t = -14.72, p < .001; r = .099, p < .001$			
mean	33.62	36.12	34.24	100%
Sentence (in days) after Log 10 transformation:	$t = 3.48, p < .001; r = -.024, p < .001$			
mean	2.66	2.64	2.65	100%
Race:	$X^2 = 47.34, 3 \text{ df}, p < .001; \text{Cramer's } V = .046, p < .001$			
Black (n=12,394)	76.5%	23.5%	100%	56.4%
Hispanic (n=2,848)	76.4%	23.6%	100%	13.0%
Other (n=108)	72.2%	27.8%	100%	0.5%
White (n=6,609)	72.2%	27.8%	100%	30.1%
Totals (n=21,959)	75.2%	24.8%	100%	100%
Street gang status:	$X^2 = 76.51, 2 \text{ df}, p < .001; \text{Cramer's } V = .059, p < .001$			
Active (n=7,713)	78.6%	21.4%	100%	35.1%
Inactive (n=450)	77.3%	22.7%	100%	2.1%
Unknown (n=13,796)	73.2%	26.8%	100%	62.8%
Totals (n=21,959)	75.2%	24.8%	100%	100%
Subject to T.I.S.:	$X^2 = 0.85, 1 \text{ df}, p = .357; \text{Phi} = -.006, p = .357$			
No (n=20,732)	75.1%	24.9%	100%	94.5%
Yes (n=1,227)	76.5%	23.5%	100%	5.5%
Totals (n=21,959)	75.2%	24.8%	100%	100%

The Chi-square test indicated the existence of a statistically significant association between the dependent variable and all variables representing legal factors reported in Table 508c ($p < .001$) discussed below.

“Offense classification” had the strongest bivariate association with the dependent variable in comparison to other variables representing legal factors. The strength of the association between “offense classification” and the dependent variable was weak as suggested by a Phi value of -0.268 ($p < .001$). The Phi value indicated a negative directional association between these variables, signifying that an offense classified as minor increased the likelihood of a prisoner receiving a verbal warning as a disciplinary sanction in response to a level 300 offense. Of the prisoners whose offense was classified as minor, 34.5% received a verbal

warning as disciplinary sanction versus 10.9% of prisoners whose offense was classified as major.

The strength of the association between “found guilty of any prior offense” and the dependent variable was also weak as suggested by a Phi value of -0.205 ($p < .001$). The negative Phi value indicated an inverse association between these variables, signifying that a prisoner with no disciplinary history during their term of incarceration was more likely to receive a verbal warning as a disciplinary sanction in response to a level 300 offense than a prisoner with a disciplinary history.

The strength of the association between the remaining variables representing legal factors and the dependent variable were extremely weak to weak with Phi values (absolute) ranging from 0.040 to 0.126.

Table 508c. Bivariate Analyses: Independent Variables Representing Legal Factors by Verbal Warning; Frequency of Variables Representing Legal Factors (Level 300 Offenses)

Dependent Variable (right) Independent Variables (below)	Verbal Warning: No (n=16,509)	Verbal Warning: Yes (n=5,450)	Total: Outcome Measure (n=21,959)	% of Sample
Number of offenses this ODR:	$X^2 = 59.94, 1 \text{ df}, p < .001; \text{Phi} = .052, p < .001$			
One (n=11,647)	77.6%	22.4%	100%	53.0%
Two or more (n=10,312)	73.1%	26.9%	100%	47.0%
Totals (n=21,959)	75.2%	24.8%	100%	100%
Offense classification:	$X^2 = 1,578.07, 1 \text{ df}, p < .001; \text{Phi} = -.268, p < .001$			
Minor (n=12,964)	65.5%	34.5%	100%	59.0%
Major (n=8,995)	89.1%	10.9%	100%	41.0%
Totals (n=21,959)	75.2%	24.8%	100%	100%
Prior level 100 violent offense (current incarceration):	$X^2 = 35.64, 1 \text{ df}, p < .001; \text{Phi} = -.040, p < .001$			
No (n=21,352)	74.9%	25.1%	100%	97.2%
Yes (n=607)	85.5%	14.5%	100%	2.8%
Totals (n=21,959)	75.2%	24.8%	100%	100%
Found guilty of any prior offense (current incarceration):	$X^2 = 925.50, 1 \text{ df}, p < .001; \text{Phi} = -.205, p < .001$			
No (n=5,756)	60.3%	39.7%	100%	26.2%
Yes (n=16,203)	80.5%	19.5%	100%	73.8%
Totals (n=21,959)	75.2%	24.8%	100%	100%

Placed in disciplinary segregation prior to this offense (current incarceration):	$X^2 = 349.99, 1 \text{ df}, p < .001; \text{Phi} = -.126, p < .001$			
No (n=15,310)	71.6%	28.4%	100%	69.7%
Yes (n=6,649)	83.5%	16.5%	100%	30.3%
Totals (n=21,959)	75.2%	24.8%	100%	100%
Placed in disciplinary segregation during prior incarceration(s):	$X^2 = 88.36, 1 \text{ df}, p < .001; \text{Phi} = -.063, p < .001$			
No (n=15,419)	73.4%	26.6%	100%	70.2%
Yes (n=6,540)	79.4%	20.6%	100%	29.8%
Totals (n=21,959)	75.2%	24.8%	100%	100%

In summary, the results of the bivariate analyses suggested that the prison in which a prisoner was disciplined for an offense, and two legal factors, “offense classification” and “found guilty of any prior offense” had the strongest bivariate associations with the dependent variable relative to the other variables examined. The variables representing extralegal factors, such as a prisoner’s demographic characteristics had either no statistically significant or a statistically significant but extremely weak bivariate association with the dependent variable.

Single-Level Logistic Regression Models for Verbal Warning as Disciplinary Sanction.

The results of three single-level logistic regression models also supported the hypothesis that the prison in which a prisoner was sanctioned for an offense will influence the severity of the sanction a prisoner received for a level 300 offense when the possible outcome was “verbal warning (no = 0/yes = 1).” Model #1 included the primary variable of interest (prison), and all covariates representing extralegal and legal factors. Model #2 included all covariates representing extralegal and legal factors, but did not include the “prison” variable. Model #3 included the primary variable of interest (prison) and covariates representing legal factors. No covariates representing an extralegal factor were included in model #3.

“Prison” was the strongest predictor of the dependent variable after controlling for the influence of covariates representing extralegal and legal factors inserted into model #1, which is

fully reported in Table 509a below. The statistics underlying model #2 and model #3, reported in Tables 509b and 509c, added further support to the hypothesis that the prison in which a prisoner is disciplined for an offense will influence the severity of the disciplinary sanction imposed.

P9 was the prison used as the reference category for the other 26 prisons included in model #1. P9 was selected as the reference category because the percentage of prisoners who received a verbal warning as a disciplinary sanction (22.9%) at this prison was closest to the mean value of verbal warnings imposed (24.8%) across the 27 prisons included in the sample. On the high end, prisoners disciplined for a level 300 offense at P21 were 159% more likely to receive a verbal warning as a disciplinary sanction than prisoners at P9. On the low end, prisoners disciplined for a level 300 offense at P16 were 92.2% less likely to receive a verbal warning as a disciplinary sanction than prisoners at P9.

Compared to the pseudo R^2 values reported for model #1 shown in Table 509a (Cox & Snell = 0.200; Nagelkerke = 0.297), the value of the pseudo R^2 measures reported for model #2 were measurably lower (Cox & Snell = 0.124; Nagelkerke = 0.184) a difference of -0.076 and -0.113 respectively. These differences in the pseudo R^2 values suggested that the single-level logistic regression model with “prison” included as a variable was a better fit, or stronger model in comparison to model #2, which was limited to covariates representing extralegal and legal factors. The higher pseudo R^2 measures stemming from the model reported in Table 509a compared to the same measures stemming from model #2 also suggested that the model in which “prison” was included as a variable (model #1) explains a greater proportion of the variance of the latent variable (Hu, Shao, & Palta, 2006).

Additionally, the model reported in Table 509a (model #1) appeared to have more predictive validity in comparison to the model that did not include prison an independent

variable (model #2). Model #1 accurately predicted whether or not a prisoner received a verbal warning as a disciplinary sanction 79.2% (C.I. 95%) of the time, while model #2 accurately predicted the outcome 76.3% (C.I. 95%) of the time, a difference of -2.9%.

In addition to supporting the hypothesis that the prison in which a prisoner is disciplined for an offense will influence the severity of the disciplinary sanctions, Tables 509a through 509c suggested that the covariates representing extralegal factors included in model #1 and model #2 did not add much insight as to what factors are determinative of the severity of disciplinary sanctions imposed for level 300 offenses. For example, the model that included “prison” and the covariates representing legal factors only (model #3) produced results similar to model #1. The pseudo R² measures for model #3 were a value of 0.189 for Cox & Snell and a value of 0.280 for Nagelkerke, a relatively minor respective difference of -0.011 and -0.017 from the pseudo R² measures for model #1. Additionally, the predictive validity of model #3 was similar to model #1. Model #3 accurately predicted whether or not a prisoner received a verbal warning as a disciplinary sanction 78.8% (C.I. 95%) of the time, a difference of -0.4% in comparison to model #1.

Of the covariates included in model #1, two legal factors stood out as strong predictors of whether or not a prisoner received a verbal warning as a disciplinary sanction. The Wald statistic was used as the benchmark to determine the strength of variables in explaining the dependent variable, relative to and controlling for the influence of other variables inserted into the model. The results of model #1 suggested that “offense classification” was highly predictive of the dependent variable. Prisoners whose offense was classified as major were 78.3% less likely to receive a verbal warning as a disciplinary sanction in comparison to prisoners whose level 300 offense was classified as minor. Also, prisoners who were found guilty of an offense during their

current incarceration prior to the offense they were sanctioned for in this instance were 74.8% less likely to receive a verbal warning in comparison to prisoners without a disciplinary history during their current incarceration.

Although the statistics underlying models one through three are reported in Tables 509a through 509c, the full results of model #2 and model #3 were not presented in tabular form in the text here for brevity's sake. The Beta, standard error, Wald, and p values associated with covariates inserted into model #2 and model #3 were not markedly different than what was reported in model #1. Complete tables of results of models #2 and #3 are available in Appendix B.

Table 509a. Model #1: Single-level Logistic Regression Results for Verbal Warning as Disciplinary Sanction (Level 300 Offenses)

Primary Independent Variable:	B	S.E.	Wald	df	Sig.	Exp(B)
Prison						
<i>P9—Reference Category</i>			1521.787	26	0.000	
P1	-0.382	0.153	6.211	1	0.013	0.682
P2	0.865	0.132	43.190	1	0.000	2.374
P3	0.038	0.134	0.081	1	0.776	1.039
P4	0.317	0.136	5.407	1	0.020	1.373
P5	-2.329	0.174	178.891	1	0.000	0.097
P6	0.366	0.155	5.599	1	0.018	1.442
P7	0.550	0.127	18.803	1	0.000	1.733
P8	-0.561	0.160	12.335	1	0.000	0.571
P10	-0.360	0.144	6.256	1	0.012	0.698
P11	0.386	0.135	8.161	1	0.004	1.470
P12	-1.369	0.179	58.367	1	0.000	0.254
P13	0.043	0.145	0.086	1	0.769	1.044
P14	0.633	0.159	15.870	1	0.000	1.883
P15	0.280	0.131	4.568	1	0.033	1.323
P16	-2.555	0.726	12.399	1	0.000	0.078
P17	-1.165	0.203	32.981	1	0.000	0.312
P18	0.753	0.153	24.392	1	0.000	2.124
P19	-0.939	0.148	40.187	1	0.000	0.391
P20	-1.961	0.245	64.031	1	0.000	0.141
P21	0.952	0.130	53.846	1	0.000	2.592
P22	0.595	0.150	15.709	1	0.000	1.813
P23	0.090	0.263	0.116	1	0.734	1.094

P24	-1.048	0.153	47.008	1	0.000	0.351
P25	0.149	0.134	1.246	1	0.264	1.161
P26	-0.853	0.135	40.010	1	0.000	0.426
P27	-1.354	0.201	45.384	1	0.000	0.258
Variables Representing Extralegal Factors						
Age at time of offense	0.019	0.002	119.787	1	0.000	1.019
Sentence (in days) Log 10 trans	0.523	0.054	92.323	1	0.000	1.687
Race (Black)— <i>Reference Category</i>			9.837	3	0.020	
Race (Hispanic)	-0.147	0.056	6.866	1	0.009	0.863
Race (Other)	-0.229	0.241	0.903	1	0.342	0.795
Race (White)	0.030	0.042	0.531	1	0.466	1.031
Street gang status (active)— <i>Reference Category</i>			6.534	2	0.038	
Street gang status (inactive)	-0.264	0.133	3.953	1	0.047	0.768
Street gang status (unknown)	0.052	0.043	1.422	1	0.233	1.053
Subject to T.I.S. (no)	0.063	0.081	0.595	1	0.441	1.065
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	-0.272	0.037	53.677	1	0.000	0.761
Offense classification (major)	-1.529	0.045	1168.588	1	0.000	0.217
Prior level 100 violent offense (current incarceration) (yes)	-0.106	0.134	0.624	1	0.430	0.900
Found guilty of any prior offense (current incarceration) (yes)	-1.377	0.045	939.437	1	0.000	0.252
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.147	0.050	8.754	1	0.003	0.863
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.153	0.043	12.442	1	0.000	0.858
Constant	-3.706	0.194	365.096	1	0.000	0.025
<ul style="list-style-type: none"> • Sig. value required for statistically significant relationship between primary independent variable/covariates and dependent variable $\leq .05$ 						
Key Statistical Measures Associated With Model #1						
X ² /df	4897.49/40		Cox & Snell R Square		.200	
p value	< .001		Nagelkerke R Square		.297	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Verbal Warning: No	Verbal Warning: Yes	% Correct			
Verbal Warning: No	15,567	942	94.3%			
Verbal Warning: Yes	3,627	1,823	33.4%			
Overall %				79.2%		

Table 509b. Model #2: Statistics Underlying Single-level Logistic Regression for Verbal Warning as Disciplinary Sanction (Level 300 Offenses)

Variables Included in Single-Level Logistic Regression Model #2			
Extralegal Factors	Age at time of offense; Sentence (in days) Log 10 trans; Race; Street Gang Status; Subject to T.I.S.		
Legal Factors	Number of offenses this ODR; Offense classification; Prior level 100 violent offense; Found guilty of any offense prior to this offense; Placed in disciplinary segregation prior to this offense; Placed in disciplinary segregation during prior incarceration(s)		
Key Statistical Measures Associated With Model #2			
X ² /df	2913.89/14	Cox & Snell R Square	.124
p value	< .001	Nagelkerke R Square	.184
Classification Table (C.I. 95%)			
Observed	Predicted		
	Verbal Warning: No	Verbal Warning: Yes	% Correct
Verbal Warning: No	15,538	971	94.1%
Verbal Warning: Yes	4,238	1,212	22.2%
Overall %			76.3%

Table 509c. Model #3: Statistics Underlying Single-level Logistic Regression for Verbal Warning as Disciplinary Sanction (Level 300 Offenses)

Variables Included in Single-Level Logistic Regression Model #3			
Prison			
Legal factors	Number of offenses this ODR; Offense classification; Prior level 100 violent offense; Found guilty of any offense prior to this offense; Placed in disciplinary segregation prior to this offense; Placed in disciplinary segregation during prior incarceration(s)		
Key Statistical Measures Associated With Model #3			
X ² /df	4,596.31/32	Cox & Snell R Square	.189
p value	< .001	Nagelkerke R Square	.280
Classification Table (C.I. 95%)			
Observed	Predicted		
	Verbal Warning: No	Verbal Warning: Yes	% Correct
Verbal Warning: No	15,692	871	95.1%
Verbal Warning: Yes	3,842	1,608	29.5%
Overall %			78.8%

Multi-level Logistic Regression Model for Verbal Warning as Disciplinary Sanction.

A multi-level statistical model was the appropriate tool for gauging variation in the severity of disciplinary sanctions imposed upon prisoners between and within prisons in this

instance, as it was assumed that the disciplinary process nested within the 27 prisons included in this analysis was influenced by organizational and cultural factors unique to each prison (Butler & Steiner, 2017; Raundenbush and Bryk, 2002). While the results of the bivariate analyses and single-level logistic regression models reported above provided insight into the extent to which the prison in which a prisoner was subjected to the disciplinary process influenced the severity of disciplinary sanctions, use of a multi-level statistical model is the proper mode of analysis. Because prisoners were nested within prisons, which created distinct groups of prisoners, the assumption of independence of all cases required for viable single-level multivariate models was violated (Maas & Hox, 2005). In other words, it is assumed that all prisoners subjected to the disciplinary process embedded in a prison were subjected to a similar contextual context unique to the prison.

In the multi-level model reported in Table 510, “prison” was a grouping variable rather than an independent variable. The variance in whether a prisoner received “verbal warning (no = 0/yes =1)” as a disciplinary sanction for a level 300 offense existing at the group-level, or variance between prisons, was 15.9%. Thus, the results suggested that the prison in which a prisoner was subjected to the disciplinary process accounted for 15.9% of the variation in whether a prisoner received a verbal warning as a disciplinary sanction in response to a level 300 offense. This finding adds support to the hypothesis that the prison in which a prisoner was sanctioned will influence the severity of the disciplinary sanction a prisoner received.

The majority (84.1%) of the variance in the outcome of the dependent variable existed at the individual-level. The results of the model reported in Table 510 suggested that 84.1% of the variation in whether a prisoner received a verbal warning in response to a level 300 offense resulted from individual-level effects measuring prisoner characteristics or the characteristics of

the offense. Echoing the findings of the bivariate statistical analyses and the single-level logistic regression models, variables representing select legal factors appeared to be the most predictive of the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included in the model.

As the Wald value reported in the results of the single-level logistic regression models were not reported in the output for the multi-level logistic regression models, the z value (absolute value) was used as the benchmark to determine how strongly associated variables were with the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included into the model.

Similar to findings of the single-level models, the individual-level effects “offense classification (minor/major)” and being “found guilty of any prior offense (no/yes)” were the individual-level effects most strongly associated with the dependent variable after controlling for group-level variance and the influence of other individual-level effects included in the multi-level model. Prisoners whose offense was classified as major were 78.4% less likely to receive a verbal warning as a disciplinary sanction than prisoners whose level 300 offense was classified as minor (reference category). Also, prisoners who were found guilty of any prior offense during their current incarceration were 75% less likely to receive a verbal warning than prisoners without a disciplinary history during their current incarceration (reference category).

Of the other individual-level effects representing legal factors, the “number of offenses this ODR” variable had the strongest association with the dependent variable relative to other legal factors. Prisoners with more than one offense listed within an ODR were 23.7% less likely to receive a verbal warning as a disciplinary sanction than prisoners with one offense listed within an ODR (reference category).

A prisoner who had been previously placed in disciplinary segregation during their last or a previous term of incarceration was approximately 14% less likely to receive a verbal warning in comparison to a prisoner who had never been placed in segregation throughout their history of incarceration(s) in IDOC (reference categories). The variable “prior level 100 violent offense” was not a statistically significant predictor of the dependent variable after controlling for the influence of the grouping variable and other variables included in the model.

Of the individual-level effects representing extralegal factors, “age at time of offense” and “sentence” were the variables most strongly associated with the dependent variable. For every one year older a prisoner was at the time of offense, the odds of the prisoner receiving a verbal warning increased by 1.9%. Contrary to the findings of the bivariate statistical analysis reported in Table 508b, the results of the multi-level model suggested that a prisoner’s odds of receiving a “verbal warning” increased as sentence length increased.

The effect of the “race” variable was limited or non-existent after controlling for the influence of the grouping variable (prison) and other individual-level effects included in the model. Prisoners identified as Hispanic by IDOC were 13.7% less likely to receive a verbal warning than prisoners identified as Black (reference category). Being White or “other race” was not a statistically significant predictor of the dependent variable relative to prisoners identified as Black.

The effect of “street gang status” was also limited or non-existent after controlling for the influence of the grouping variable (prison) and other variables included in the model. Prisoners labeled by IDOC as inactive gang members were 23.1% less likely to receive a verbal warning than prisoners labeled as active gang members (reference category). “Street gang status” was not a statistically significant predictor of the dependent variable for prisoners whose street gang

status was unknown versus inactive or active gang members (reference category). Also, the “subject to T.I.S.” variable did not have a statistically significant association with the dependent variable.

The results of the multi-level logistic regression model reported in Table 510 supported the hypothesis that the prison in which a prisoner was subjected to the prison disciplinary process influenced the severity of the disciplinary sanction a prisoner received, with 15.9% of the variance in whether a prisoner received a verbal warning existing at the group-level (between prisons). Additionally, the results of the model suggested that two individual-level effects representing legal factors, “offense classification” and “found guilty of any prior offense” were most predictive of the dependent variable after controlling for the influence of the grouping variable and the other individual-level effects included in the model reported in Table 510.

Individual-level effects representing extralegal factors were not predictive of whether a prisoner received a verbal warning in comparison to legal factors according to the results of the multi-level logistic regression model reported below.

Table 510. Multi-Level Logistic Regression Results for Verbal Warning as Disciplinary Sanction (Level 300 Offenses)

Random effects:					
Groups name	Variance		S.D.		
Prisons (intercept)	.8313		.9118		
Number of observations: 21959, groups: Prisons, 27					
Fixed effects:					
	Estimate (B)	S.E.	z value	Sig.	Exp(B)
Intercept	1.801	0.194	9.303	0.001	6.056
Individual-level effects representing extralegal factors					
Age at time of offense (GMC)	0.019	0.002	10.960	0.001	1.019
Sentence (in days) Log10 trans (GMC)	0.520	0.054	9.572	0.001	1.682
Race (Hispanic)— <i>Reference Category (Black)</i>	-0.147	0.056	-2.629	0.01	0.863
Race (Other)	-0.228	0.241	-0.944	0.345	0.796
Race (White)	0.031	0.042	0.736	0.462	1.031

Street gang status (inactive)— <i>Reference Category (active)</i>	-0.263	0.132	-1.985	0.047	0.769
Street gang status (unknown)	0.053	0.043	1.229	0.223	1.054
Subject to T.I.S. (yes)	0.059	0.081	0.724	0.469	1.031
Individual-level effects representing legal factors					
Number of offenses this ODR (two or more)	-0.270	0.037	7.283	0.001	0.763
Offense classification (major)	-1.533	0.045	-34.324	0.001	0.216
Prior level 100 violent offense (current incarceration) (yes)	-0.106	0.134	-0.795	0.427	0.900
Found guilty of any prior offense (current incarceration) (yes)	-1.372	0.045	-30.574	0.001	0.253
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.149	0.050	-2.997	0.01	0.861
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.154	0.043	-3.563	0.001	0.857
<ul style="list-style-type: none"> • Sig. value required for statistically significant relationship between individual-level effects and dependent variable $\leq .05$ 					
Variance between prisons observed (group-level)					15.9%
Variance observed at individual-level (effects representing legal and extralegal factors)					84.1%
Conditional R ²					.370
Statistics underlying this model can be found in Appendix C					

CHAPTER FIVE

RESULTS: SECTION C

The analyses reported within this Chapter Five: Results—C were conducted using a sample consisting of any prisoner found guilty of a level 300 offense who did not receive a verbal warning as disciplinary sanction (n = 16,509). Thus, all cases included in the analyses reported within this section were coded as zero for receiving a “verbal warning,” and represent a subset of the final sample (n = 42,637) that met all eligibility criteria. The prisoners included in the sample (n = 16,509) constituted 75.2% of all prisoners found guilty of a level 300 offense (n = 21,959). As explained in the Methods chapter, prisoners who were found guilty of 301—Fighting were not included in these analyses.

Of the two sets of analyses conducted on level 300 offenses, this is considered to be the more important of the two. The sample contains 16,509 prisoners, the majority (75.2%) of all prisoners found guilty of a level 300 offense. Additionally, and most significantly, the possible values of the dependent variable in this instance, “loss or restriction of privileges only (no = 0/yes = 1)” best represents harshness of disciplinary sanctions imposed upon prisoners. If the outcome of the dependent variable was yes (coded as 1), a prisoner’s disciplinary sanction was limited to a loss or restriction of privileges, arguably the second least severe disciplinary sanction that can be imposed upon a prisoner. If the outcome of the dependent variable was no (coded as 0), the harshness of the disciplinary sanction imposed upon the prisoner increased, as the prisoner received one or more of the following sanctions: reduction in grade, disciplinary segregation, and revocation of good time.

This chapter was organized as follows: first, frequencies of the dependent variable and continuous independent variables representing extralegal factors were reported. Within this section, the composition of the sample of prisoners found guilty of a level 300 offense (no verbal warnings) were compared to the composition of the population of prisoners who exited IDOC during SFY 2011 through the end of SFY 2014; second, the frequency of the primary independent variable of interest (prison) and the results of a bivariate statistical analysis of the relationship between this variable and the dependent variable were reported; third, the frequencies of categorical independent variables representing extralegal factors, and the results of bivariate statistical analyses of the relationship between these variables and the dependent variable were reported; fourth, the frequencies of partially ordered independent variables representing legal factors and the results of bivariate statistical analyses of the relationship between these variables and the dependent variable were reported; fifth, the results of single-level logistic regression models were reported; lastly, the results of the multi-level logistic regression model was reported.

A full description of the variables discussed herein may be viewed in pages 38 through 52 of the Methods chapter.

Table 511. Frequency of Dependent Variable: Loss or Restriction of Privileges Only (Level 300 Offenses, No Verbal Warnings)

	n	No	Yes
Loss or Restriction of Privileges Only	16,509	7,260	9,249
		44.0%	56.0%

Comparison of Subset of Sample Analyzed in this Chapter Five: Section—C to Population for Representativeness.

The similarities between key demographic identifiers such as the age and race of the population of prisoners who exited IDOC between SFY 2011 and 2014 (all 91,846 prisoners

contained within the exit file dataset) and the sample of 16,509 prisoners suggest that the sample is representative of the population the sample was drawn from. Additionally, the demographic characteristics of the sample are not markedly different from the sample of all prisoners found guilty of a level 300 offense used in the preceding results chapter.

The mean age of prisoners included in the sample at the time they were found guilty of level 300 offense was 33.62 years of age. The mean age of the population of prisoners who exited IDOC between SFY 2011 and 2014 was 34.65 years of age, a difference of approximately one year from the mean age of prisoners when they were found guilty of a level 300 offense. The mean amount of actual days of a prison sentence served by a prisoner included in the sample (variable labeled sentence) was 773.41. The mean amount of actual days served by all prisoners contained within the exit file dataset was 531.55, a difference of -241.86 days or 7.92 fewer months.

The “sentence” variable was reported in the table below because it is a clearer indicator of the actual time served by prisoners than the logarithmically transformed version of the “sentence” variable that was used throughout the analyses reported herein. The actual amount of time a prisoner served measured in days was not subjected to bivariate statistical analyses or inserted into the single-level or multi-level statistical models.

Table 512. Univariate Statistics of Continuous Independent Variables Representing Extralegal Factors (Level 300 Offenses, No Verbal Warnings)

Independent variables	n	mean	S.D.	Min.	Max.	Skewness	Kurtosis
Age at time of offense	16,509	33.62	10.87	17	82	.740	-.095
Sentence (in days) Log 10 transformation	16,509	2.66	.41	1.45	4.30	.444	.376
Sentence (in days)— <i>not used in analyses</i>	16,509	773.41	1,180.29	28	19,914	5.04	35.42

The figures reported in Table 513b demonstrate that the racial composition of this sample of prisoners who were found guilty of a level 300 offense is effectively identical to the racial

composition of all prisoners who exited IDOC between SFY 2011 and 2014. The racial composition of all prisoners contained within the exit file dataset is 56.6% Black, 12.7% Hispanic, 0.5% other, and 30.2% White. The difference between the sample and the exit file dataset is as follows: Black +0.8%, Hispanic +0.5%, other 0.0%, and White -1.3%.

The figures reported in Table 513b concerning the number of prisoners sentenced under Truth In Sentencing (T.I.S.) guidelines by a criminal court included in the sample are representative of the prisoners contained within the exit file dataset. Of the prisoners contained within the exit file dataset, 4.3% were sentenced under T.I.S, a difference of 1.4% from the sample prisoners found guilty of a level 300 offense.

Bivariate Analyses; Frequencies of Variables Included in Bivariate Analyses, Single-Level and Multi-Level Logistic Regression Models.

Details concerning the bivariate statistical tests used in the analyses reported below can be found in the Methods chapter of this work beginning on page 24. As stated in the Methods chapter, all requirements were met for valid Chi-squared and t tests used throughout these analyses.

The Chi-squared test suggested that a statistically significant association existed between the prison in which a prisoner was subjected to the disciplinary process and the dependent variable ($X^2 = 4,286.50$, $p < .001$). The strength of the association between these two variables was strong, as indicated by a Cramer's V value of 0.510 ($p < .001$). In this instance, "loss or restriction of privileges only = yes (coded as 1)" means that a prisoner had a less severe disciplinary sanction imposed upon them in comparison to prisoners who received another sanction(s) ("loss or restriction of privileges only = no (coded as 0)").

Overall, 56.0% of prisoners received a loss or restriction of privileges only as a disciplinary sanction in response to a level 300 offense across the 27 prisons included in this sample. Table 513a demonstrates that there was substantial variation in the percentage of level 300 offenses resulting in a sanction of loss or restriction of privileges only between prisons. When treated as a continuous variable, the percentage of “loss or restriction of privileges only = yes” imposed across prisons was normally distributed (skewness = -0.396, kurtosis = -1.034) with values ranging from 0.0% (P16) to 88.4% (P4). The mean percentage of “loss or restriction of privileges only = yes” imposed across prisons was 51.5%, and one standard deviation from the mean was $\pm 27.2\%$, a range of 54.4%. Thus, within 18 of the 27 prisons (approximately 68%) included in the sample, a loss or restriction of privileges only was used as a disciplinary sanction in response to 24.3% to 81.6% of level 300 offenses.

The strength of the association between the primary independent variable of interest (prison) and “loss or restriction of privileges only (no/yes)” as a sanction for a level 300 offense supports the hypothesis that the severity of disciplinary sanctions imposed by prison officials will vary according to the prison in which a prisoner is subjected to the disciplinary process.

Table 513a. Bivariate Analysis: Prison (Primary Independent Variable) by Loss or Restriction of Privileges Only; Frequency of Prison (Level 300 Offenses, No Verbal Warnings)

Prison	n	Other Sanction (n=7,260)	Loss or Restriction of Privileges Only (n=9,249)	Total: Outcome Measure (n=16,509)	% of Sample
$X^2 = 4,286.50, 26 \text{ df}, p < .001; \text{Cramer's } V = .510, p < .001$					
P1	499	46.1%	53.9%	100%	3.0%
P2	562	95.2%	4.8%	100%	3.4%
P3	668	40.0%	60.0%	100%	4.0%
P4	552	11.6%	88.4%	100%	3.3%
P5	1,314	35.7%	64.3%	100%	8.0%
P6	318	30.5%	69.5%	100%	1.9%
P7	1,130	18.3%	81.7%	100%	6.8%

P8	589	77.6%	22.4%	100%	3.6%
P9	422	67.5%	32.5%	100%	2.6%
P10	776	44.6%	55.4%	100%	4.7%
P11	504	26.6%	73.4%	100%	3.1%
P12	591	46.4%	53.6%	100%	3.6%
P13	500	20.4%	79.6%	100%	3.0%
P14	302	78.5%	21.5%	100%	1.8%
P15	782	88.4%	11.6%	100%	4.7%
P16	145	100.0%	0.0%	100%	0.9%
P17	539	65.9%	34.1%	100%	3.3%
P18	277	53.1%	46.9%	100%	1.7%
P19	700	15.7%	84.3%	100%	4.2%
P20	681	56.2%	43.8%	100%	4.1%
P21	903	22.0%	78.0%	100%	5.5%
P22	281	12.8%	87.2%	100%	1.7%
P23	100	68.0%	32.0%	100%	0.6%
P24	581	22.9%	77.1%	100%	3.5%
P25	1,067	49.8%	50.2%	100%	6.5%
P26	1,199	21.9%	78.1%	100%	7.3%
P27	527	94.1%	5.9%	100%	3.2%
Totals:	16,509	44.0%	56.0%	100%	100%

The t test indicated that there was a statistically significant difference in the mean age of prisoners who received a loss or restriction of privileges only compared to those who did not ($t = -4.83, p < .001$). The test showed that on average, prisoners who received a loss or restriction of privileges only as a sanction for a level 300 offense were 9.6 months older than prisoners who received another sanction. The Pearson's r test suggested the existence of a statistically significant association between "age at time of offense" and the dependent variable ($p < .001$). Also, the direction of the association was positive, suggesting that an older prisoner was more likely to receive a loss or restriction of privileges only (i.e. disciplinary sanction less severe) in response to a level 300 offense than a younger prisoner. The strength of association between these variables, however, was extremely weak with a Pearson's r value of 0.04.

The Chi-square test indicated the existence of a statistically significant association between the dependent variable and “street gang status” ($X^2 = 48.54$, $p < .001$), but the strength of the association was extremely weak as indicated by Cramer’s V value of 0.054 ($p < .001$).

The t test indicated that there was not a statistically significant difference in the mean length of sentence actually served between prisoners who received a loss or restriction of privileges compared to those who received other sanction.

The Chi-square test also indicated the absence of a statistically significant association between the dependent variable and the variables “race” ($X^2 = 13.03$, $p < .01$) and “subject to T.I.S.” ($X^2 = 5.44$, $p < .05$). As noted within Table 401 of the Methods chapter, a p value of .004 or less was required for a bivariate association to be deemed statistically significant after the Bonferroni Method was applied to the bivariate analyses reported in this Chapter Five: Results—C.

Table 513b. Bivariate Analyses: Independent Variables Representing Extralegal Factors by Loss or Restriction of Privileges Only; Frequency of Variables Representing Extralegal Factors (Level 300 Offenses, No Verbal Warnings)

Dependent Variable (right) Independent Variables (below)	Other Sanction (n=7,260)	Loss or Restriction of Privileges Only (n=9,249)	Total: Outcome Measure (n=16,509)	% of Sample
Age at time of offense:	$t = -4.83$, $p < .001$; $r = .038$, $p < .001$			
mean	33.16	33.98	33.62	100%
Sentence (in days) after Log 10 transformation:	$t = 2.77$, $p < .01$; $r = -.022$, $p < .01$			
mean	2.67	2.65	2.66	100%
Race:	$X^2 = 13.03$, 3 df, $p < .01$; Cramer’s V = .028, $p < .01$			
Black (n=9,485)	45.0%	55.0%	100%	57.4%
Hispanic (n=2,177)	41.9%	58.1%	100%	13.2%
Other (n=78)	33.3%	66.7%	100%	0.5%
White (n=4,769)	43.1%	56.9%	100%	28.9%
Totals (n=16,509)	44.0%	56.0%	100%	100%

Street gang status:	$X^2 = 48.54, 2 \text{ df}, p < .001; \text{Cramer's } V = .054, p < .001$			
Active (n=6,059)	47.2%	52.8%	100%	36.7%
Inactive (n=348)	49.1%	50.9%	100%	2.1%
Unknown (n=10,102)	41.8%	58.2%	100%	61.2%
Totals (n=16,509)	44.0%	56.0%	100%	100%
Subject to T.I.S.:	$X^2 = 5.44, 1 \text{ df}, p < .05; \text{Phi} = -.018, p < .05$			
No (n=15,573)	43.8%	56.2%	100%	94.3%
Yes (n=936)	47.6%	52.4%	100%	5.7%
Totals (n=16,509)	44.0%	56.0%	100%	100%

The Chi-square test indicated the existence of a statistically significant association between the dependent variable and all but one variable representing legal factors reported in Table 513c ($p < .001$). The only variable representing a legal factor that did not have a statistically significant association with the dependent variable was “found guilty of any prior offense (current incarceration)” ($p = .148$).

“Offense classification” had the strongest bivariate association with the dependent variable in comparison to other variables representing legal factors. The strength of the association between “offense classification” and the dependent variable was moderate as suggested by a Phi value of -0.400 ($p < .001$). The Phi value indicated a negative directional association between these variables, signifying that an offense classified as minor increased the likelihood of a prisoner receiving a loss or restriction of privileges only as a disciplinary sanction. Of the prisoners whose offense was classified as minor, 75.3% received the disciplinary sanction of “loss or restriction of privileges only,” versus 35.6% of prisoners whose offense was classified as major who received a harsher sanction than loss or restriction of privileges.

The strength of the association between the remaining variables representing legal factors that had a statistically significant association with the dependent variable were extremely weak to weak with Phi values (absolute value) ranging from 0.011 to 0.158.

Table 513c. Bivariate Analyses: Independent Variables Representing Legal Factors by Verbal Warning; Frequency of Variables Representing Legal Factors (Level 300 Offenses, No Verbal Warnings)

Dependent Variable (right) Independent Variables (below)	Other Sanction (n=7,260)	Loss or Restriction of Privileges Only (n=9,249)	Total: Outcome Measure (n=16,509)	% of Sample
Number of offenses this ODR:	$X^2 = 159.81, 1 \text{ df}, p < .001; \text{Phi} = -.098, p < .001$			
One (n=8,509)	39.2%	60.8%	100%	51.5%
Two or more (n=8,000)	49.0%	51.0%	100%	48.5%
Totals (n=16,509)	44.0%	56.0%	100%	100%
Offense classification:	$X^2 = 2,635.09, 1 \text{ df}, p < .001; \text{Phi} = -.400, p < .001$			
Minor (n=8,496)	24.7%	75.3%	100%	51.5%
Major (n=8,013)	64.4%	35.6%	100%	48.5%
Totals (n=16,509)	44.0%	56.0%	100%	100%
Prior level 100 violent offense (current incarceration):	$X^2 = 35.99, 1 \text{ df}, p < .001; \text{Phi} = -.047, p < .001$			
No (n=15,990)	43.6%	56.4%	100%	96.9%
Yes (n=519)	56.8%	43.2%	100%	3.1%
Totals (n=16,509)	44.0%	56.0%	100%	100%
Found guilty of any prior offense (current incarceration):	$X^2 = 2.09, 1 \text{ df}, p = .148; \text{Phi} = .011, p = .148$			
No (n=3,471)	45.1%	54.9%	100%	21.0%
Yes (n=13,038)	43.7%	56.3%	100%	79.0%
Totals (n=16,509)	44.0%	56.0%	100%	100%
Placed in disciplinary segregation prior to this offense (current incarceration):	$X^2 = 413.72, 1 \text{ df}, p < .001; \text{Phi} = -.158, p < .001$			
No (n=10,960)	38.4%	61.6%	100%	66.4%
Yes (n=5,549)	55.0%	45.0%	100%	33.6%
Totals (n=16,509)	44.0%	56.0%	100%	100%
Placed in disciplinary segregation during prior incarceration(s):	$X^2 = 152.57, 1 \text{ df}, p < .001; \text{Phi} = -.096, p < .001$			
No (n=11,317)	40.7%	59.3%	100%	68.5%
Yes (n=5,192)	51.0%	49.0%	100%	31.5%
Totals (n=16,509)	44.0%	56.0%	100%	100%

In summary, the results of the bivariate analyses suggested that the prison in which a prisoner was disciplined for an offense and the legal factor “offense classification” had the strongest bivariate associations with the dependent variable amongst the independent variables examined. The variables representing extralegal factors, such as a prisoner’s demographic

characteristics had either no statistically significant association or an extremely weak bivariate association with the dependent variable.

Single-Level Logistic Regression Models for Loss or Restriction of Privileges Only as Disciplinary Sanction.

The results of three single-level logistic regression models also supported the hypothesis that the prison in which a prisoner was sanctioned for an offense will influence the severity of the sanction a prisoner received for a level 300 offense when the possible outcome was received “loss or restriction of privileges only (no = 0/yes = 1).” In this instance, “loss or restriction of privileges only = yes (coded as 1)” means that a prisoner had a less severe disciplinary sanction imposed upon them in comparison to prisoners who received another sanction(s) (“loss or restriction of privileges only = no (coded as 0)”). Model #1 included the primary variable of interest (prison), and all covariates representing extralegal and legal factors. Model #2 included all covariates representing extralegal and legal factors, but did not include the “prison” variable. Model #3 included the primary variable of interest (prison) and covariates representing legal factors. No covariates representing an extralegal factor were included in model #3.

“Prison” was the strongest predictor of the dependent variable after controlling for the influence of the covariates representing extralegal and legal factors included in model #1, which is fully reported in Table 514a below. The statistics underlying model #2 and model #3, reported in Tables 514b and 514c, added further support to the hypothesis that the prison in which a prisoner was disciplined for an offense will influence the severity of the disciplinary sanction imposed.

P25 was the prison used as the reference category for the other 26 prisons included in model #1. P25 was selected as the reference category because the percentage of prisoners who

received a loss or restriction of privileges only as a disciplinary sanction (50.2%) at this prison was closest to the mean value of this sanction imposed (56.0%) throughout the 27 prisons included in the sample. On the high end, prisoners disciplined for a level 300 offense at P7 were 389% more likely to receive a loss or restriction of privilege only as a disciplinary sanction than prisoners at P25. On the low end, prisoners disciplined for a level 300 offense at P16 were 100% less likely to receive a loss or restriction of privilege only as a disciplinary sanction than prisoners at P25 because no prisoner at P16 received a loss or restriction of privilege only as a disciplinary sanction.

Compared to the pseudo R^2 values reported for model #1 shown in Table 514a (Cox & Snell = 0.369; Nagelkerke = 0.495), the value of the pseudo R^2 measures reported for model #2 were much lower (Cox & Snell = 0.175; Nagelkerke = 0.235) a difference of -0.194 and -0.224 respectively. These differences in the pseudo R^2 values suggested that the single-level logistic regression model with “prison” included as a variable was a better fit, or stronger model in comparison to model #2, which was limited to covariates representing extralegal and legal factors. The higher pseudo R^2 measures stemming from the model reported in Table 514a compared to the same measures stemming from model #2 also suggested that the model in which “prison” was included as a variable (model #1) explains a greater proportion of the variance of the latent variable (Hu, Shao, & Palta, 2006).

Additionally, the model reported in Table 514a (model #1) appeared to have more predictive validity in comparison to the model that did not include “prison” an independent variable (model #2). Model #1 accurately predicted whether or not a prisoner received a loss or restriction of privilege only as a disciplinary sanction 79.8% (C.I. 95%) of the time, while model #2 accurately predicted the outcome 69.9% (C.I. 95%) of the time, a difference of -9.9%.

In addition to supporting the hypothesis that the prison in which a prisoner is disciplined for an offense influences the severity of the disciplinary sanction imposed, Tables 514a through 514c suggested that the covariates representing extralegal factors included in model #1 and model #2 did not add much insight as to what factors are determinative of the severity of disciplinary sanctions imposed for level 300 offenses. For example, the model that included “prison” and covariates representing legal factors only (model #3) produced results very similar to model #1. The pseudo R² measures for model #3 were a value of 0.367 for Cox & Snell and a value of 0.493 for Nagelkerke, a relatively miniscule difference of -0.001 and -0.002 respectively from the pseudo R² measures for model #1. Additionally, the predictive validity of model #3 was identical to model #1. Model #3 accurately predicted whether or not a prisoner received a loss or restriction of privilege only as a disciplinary sanction 79.8% (C.I. 95%) of the time, a difference of 0.0% in comparison to model #1.

Of the covariates included in model #1, one variable representing a legal factor stood out as the strongest predictor of whether or not a prisoner received a loss or restriction of privilege only as a disciplinary sanction. The Wald statistic was used as the benchmark to determine the strength of variables in explaining the dependent variable, relative to and controlling for the influence of other variables inserted into the model. The results of model #1 suggested that “offense classification” was highly predictive of the dependent variable. Prisoners sanctioned for an offense classified as major were 88.9% less likely to receive a loss or restriction of privilege only (i.e. received a harsher sanction) as a disciplinary sanction in comparison to prisoners whose level 300 offense was classified as minor.

Although the statistics underlying models one through three are reported in Tables 514a through 514c, the full results of model #2 and model #3 were not presented in tabular form

below for brevity's sake. The Beta, standard error, Wald, and p values associated with the variables inserted into model #2 and model #3 were not markedly different than what was reported in model #1. Complete tables of results of models #2 and #3 are available in Appendix B.

Table 514a. Model #1: Single-level Logistic Regression Results for Loss or Restriction of Privileges Only as Disciplinary Sanction (Level 300 Offenses, No Verbal Warnings)

Primary Independent Variable:	B	S.E.	Wald	df	Sig.	Exp(B)
Prison						
P25— <i>Reference Category</i>			2693.077	26	0.000	
P1	-0.403	0.127	10.003	1	0.002	0.668
P2	-4.129	0.214	372.749	1	0.000	0.016
P3	-0.455	0.117	15.075	1	0.000	0.634
P4	1.312	0.161	66.704	1	0.000	3.715
P5	-0.043	0.099	0.189	1	0.664	0.958
P6	0.488	0.155	9.873	1	0.002	1.629
P7	1.587	0.107	218.799	1	0.000	4.889
P8	-1.758	0.132	177.481	1	0.000	0.172
P9	-1.317	0.140	88.174	1	0.000	0.268
P10	0.081	0.109	0.554	1	0.457	1.084
P11	-0.021	0.135	0.023	1	0.879	0.980
P12	-0.377	0.121	9.747	1	0.002	0.686
P13	1.009	0.142	50.753	1	0.000	2.744
P14	-1.868	0.172	117.622	1	0.000	0.154
P15	-3.113	0.139	503.696	1	0.000	0.044
P16	-20.69	3280.2	0.000	1	0.995	0.000
P17	-0.599	0.126	22.754	1	0.000	0.549
P18	-1.093	0.155	49.778	1	0.000	0.335
P19	0.623	0.136	20.873	1	0.000	1.865
P20	0.028	0.111	0.064	1	0.801	1.028
P21	1.539	0.110	194.128	1	0.000	4.661
P22	1.259	0.206	37.205	1	0.000	3.520
P23	-0.382	0.236	2.629	1	0.105	0.682
P24	0.173	0.135	1.648	1	0.199	1.189
P26	0.589	0.106	30.774	1	0.000	1.802
P27	-3.317	0.208	253.167	1	0.000	0.036
Variables Representing Extralegal Factors						
Age at time of offense	0.002	0.002	0.714	1	0.398	1.002
Sentence (in days) Log 10 trans	0.242	0.061	15.964	1	0.000	1.274

Race (Black)— <i>Reference Category</i>			8.056	3	0.045	
Race (Hispanic)	-0.022	0.063	0.123	1	0.726	0.978
Race (Other)	0.341	0.343	0.989	1	0.320	1.407
Race (White)	-0.128	0.049	6.717	1	0.010	0.880
Street gang status (active)— <i>Reference Category</i>			1.520	2	0.468	
Street gang status (inactive)	-0.146	0.143	1.046	1	0.306	0.864
Street gang status (unknown)	0.023	0.048	0.230	1	0.632	1.023
Subject to T.I.S. (no)	-0.179	0.091	3.849	1	0.050	0.836
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	-0.217	0.042	26.703	1	0.000	0.805
Offense classification (major)	-2.198	0.047	2184.677	1	0.000	0.111
Prior level 100 violent offense (current incarceration) (yes)	0.103	0.119	0.751	1	0.386	1.109
Found guilty of any prior offense (current incarceration) (yes)	-0.083	0.057	2.129	1	0.144	0.920
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.316	0.051	38.350	1	0.000	0.729
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.077	0.047	2.668	1	0.102	0.926
Constant	-1.386	121.490	0.000	1	0.991	0.250
<ul style="list-style-type: none"> • Sig. value required for statistically significant relationship between primary independent variable/covariates and dependent variable $\leq .05$ 						
Key Statistical Measures Associated With Model #1						
X ² /df	7,606.17/40		Cox & Snell R Square		.369	
p value	< .001		Nagelkerke R Square		.495	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Other Sanction	Loss or Restriction of Privileges Only		% Correct		
Other Sanction	5,547	1,713		76.4%		
Loss or Restriction of Privileges Only	1,626	7,623		82.4%		
Overall %				79.8%		

Table 514b. Model #2: Statistics Underlying Single-level Logistic Regression for Loss or Restriction of Privileges Only as Disciplinary Sanction (Level 300 Offenses, No Verbal Warnings)

Variables Included in Single-Level Logistic Regression Model #2			
Extralegal Factors	Age at time of offense; Sentence (in days) Log 10 trans; Race; Street Gang Status; Subject to T.I.S.		
Legal Factors	Number of offenses this ODR; Offense classification; Prior level 100 violent offense; Found guilty of any offense prior to this offense; Placed in disciplinary segregation prior to this offense; Placed in disciplinary segregation during prior incarceration(s)		
Key Statistical Measures Associated With Model #2			
X ² /df	3,178.21/14	Cox & Snell R Square	.175
p value	< .001	Nagelkerke R Square	.235
Classification Table (C.I. 95%)			
Observed	Predicted		
	Other Sanction	Loss or Restriction of Privileges Only	% Correct
Other Sanction	5,022	2,238	69.2%
Loss or Restriction of Privileges Only	2,724	6,525	70.5%
Overall %			69.9%

Table 514c. Model #3: Statistics Underlying Single-level Logistic Regression for Loss or Restriction of Privileges Only as Disciplinary Sanction (Level 300 Offenses, No Verbal Warnings)

Variables Included in Single-Level Logistic Regression Model #3			
Prison			
Legal factors	Number of offenses this ODR; Offense classification; Prior level 100 violent offense; Found guilty of any offense prior to this offense; Placed in disciplinary segregation prior to this offense; Placed in disciplinary segregation during prior incarceration(s)		
Key Statistical Measures Associated With Model #3			
X ² /df	7,577.42/32	Cox & Snell R Square	.368
p value	< .001	Nagelkerke R Square	.493
Classification Table (C.I. 95%)			
Observed	Predicted		
	Other Sanction	Loss or Restriction of Privileges Only	% Correct
Other Sanction	5,573	1,687	76.8%
Loss or Restriction of Privileges Only	1,640	7,609	82.3%
Overall %			79.8%

Multi-Level Logistic Regression Model for Loss or Restriction of Privileges Only as Disciplinary Sanction.

A multi-level statistical model was the appropriate tool for gauging variation in the severity of disciplinary sanctions imposed upon prisoners between and within prisons, as it was assumed that the disciplinary process nested within the 27 prisons included in this analysis was influenced by organizational and cultural factors unique to each prison (Butler & Steiner, 2017; Raundenbush and Bryk, 2002). While the results of the bivariate analyses and single-level logistic regression models reported above provided insight into the extent to which the prison in which a prisoner was subjected to the disciplinary process influenced the severity of disciplinary sanctions, use of a multi-level statistical model is the proper mode of analysis. Because prisoners were nested within prisons, which created distinct groups of prisoners, the assumption of independence of all cases required for viable single-level multivariate models was violated (Maas & Hox, 2005). In other words, it is assumed that all prisoners subjected to the disciplinary process embedded in a prison are subjected to a similar contextual context unique to the prison.

In the multi-level model reported in Table 515, “prison” was a grouping variable rather than an independent variable. The variance in whether a prisoner received “loss or restriction of privileges only (no = 0/yes = 1)” as a disciplinary sanction for a level 300 offense existing at the group-level, or variance between prisons, was 36.0%. Thus, the results suggested that the prison in which a prisoner was subjected to the disciplinary process accounted for 36.0% of the variation in whether a prisoner received a loss or restriction of privileges only as a disciplinary sanction in response to a level 300 offense. This finding adds strong support to the hypothesis that the prison in which a prisoner was sanctioned for an offense will influence the severity of the disciplinary sanction a prisoner received. In this instance, “loss or restriction of privileges

only = yes (coded as 1)” means that a prisoner had a less severe disciplinary sanction imposed upon them in comparison to prisoners who received another sanction(s) (“loss or restriction of privileges only = no (coded as 0”).

The majority (64.0%) of the variance in the outcome of the dependent variable existed at the individual-level. The results of the model reported in Table 515 suggested that 64% of the variation in whether a prisoner received a loss or restriction in privileges only in response to a level 300 offense resulted from individual-level effects measuring prisoner characteristics or the characteristics of the offense. Echoing the findings of the bivariate statistical analyses and the single-level logistic regression models, “offense classification,” an individual-level effect representing a legal factor appeared to have the strongest association with the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included in the model.

As the Wald value reported in the results of the single-level logistic regression models were not reported in the output for the multi-level logistic regression models, the z value (absolute value) was used as the benchmark to determine how strongly associated an individual-level effect was with the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included into the model.

Similar to findings of the single-level models, the individual-level effect “offense classification (minor/major)” was the most relevant predictor of the dependent variable after controlling for the influence of group-level variance and other individual-level effects included in the multi-level model. Prisoners sanctioned for an offense classified as major were 89% less likely to receive a loss or restriction of privileges only as a disciplinary sanction (i.e. received a

harsher disciplinary sanction) than prisoners sanctioned for a level 300 offense classified as minor (reference category).

Of the individual-level effects representing legal factors other than “offense classification,” “placed in disciplinary segregation prior to this offense” was more strongly associated with the dependent variable than other legal factors. Prisoners placed in disciplinary segregation for a prior offense were 27% less likely to receive a restriction or loss of privileges only as a disciplinary sanction than prisoners who had not been previously placed in disciplinary segregation (reference category). Prisoners with more than one offense listed within an ODR (reference category) were 20% less likely to receive a loss or restriction of privileges only as a disciplinary sanction than prisoners with one offense listed within an ODR. As suggested by the z values, however, the individual-level effects measuring a prisoner’s prior history of being placed in disciplinary segregation and “number of offenses this ODR” were not as strongly associated with the dependent variable when compared to other individual-level effects representing legal factors.

The individual-level effects of “prior level 100 violent offense,” “found guilty of any prior offense,” and “placed in disciplinary segregation during prior incarceration” did not have a statistically significant association with the dependent variable after controlling for the influence of the grouping variable and other individual-level effects.

The results of the multi-level model reported in Table 515 suggested that the individual-level effect of “sentence” was the strongest predictor of the dependent variable amongst the variables representing extralegal factors, but a relatively weak predictor when compared to legal factors nonetheless. Similar to the single-level model reported in Table 514a, the results of the multi-level model suggested that prisoners who served longer sentences were more likely to

receive a loss or restriction of privileges only as a disciplinary sanction than prisoners who served shorter sentences, contrary to the findings of the bivariate statistical analysis reported in Table 513b above.

The effect of the individual-level effect of “race” was limited or non-existent after controlling for the effect of group-level (prison) variance and other individual-level effects included in the model. Prisoners identified as White by IDOC were 12% less likely to receive a loss or restriction of privileges only than prisoners identified as Black (reference category). Being Hispanic or “other race” was not a statistically significant predictor of the dependent variable relative to prisoners identified as Black.

Prisoners subject to T.I.S. were 17% less likely to receive a loss or restriction of privileges only than prisoners not subject to T.I.S (reference category). The effect of a prisoner’s T.I.S status, however, was not strongly associated with the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included in the model as indicated by the z value (absolute value).

The individual-level effect of “street gang status” was not a statistically significant predictor of the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included in the model. The same was true of “age at time of offense.”

The results of the multi-level logistic regression model reported below supported the hypothesis that the prison in which a prisoner was subjected to the prison disciplinary process influenced the severity of the disciplinary sanction a prisoner received, with 36.03% of the variance in whether a prisoner received a loss or restriction of privileges only as a disciplinary sanction existing at the group-level (prisons). Additionally, the results of the model suggested

that “offense classification,” an individual-level effect representing a legal factor, was most predictive of the dependent variable after controlling for the influence of the grouping variable and the other individual-level effects included in the model.

Individual-level effects representing extralegal factors were not strong predictors of whether a prisoner received a restriction or loss of privileges only (i.e. less severe disciplinary sanction) relative to legal factors according to the results of the multi-level logistic regression model reported in Table 515.

Table 515. Multi-Level Logistic Regression Results for Loss or Restriction of Privileges Only as Disciplinary Sanction (Level 300 Offenses, No Verbal Warnings)

Random effects:					
Groups name	Variance		S.D.		
Prisons (intercept)	2.591		1.61		
Number of observations: 16509; groups: Prisons, 27					
Fixed effects:					
	Estimate (B)	S.E.	z value	Sig.	Exp(B)
Intercept	1.398	0.319	4.378	0.001	4.05
Individual-level effects representing extralegal factors					
Age at time of offense (GMC)	0.002	0.002	0.865	0.387	1.00
Sentence(in days) Log10 trans (GMC)	0.242	0.061	3.997	0.001	1.27
Race (Hispanic)— <i>Reference Category (Black)</i>	-0.023	0.063	-0.358	0.720	0.98
Race (Other)	0.340	0.342	0.993	0.321	1.40
Race (White)	-0.128	0.049	-2.587	0.01	0.88
Street gang status (inactive)— <i>Reference Category (active)</i>	-0.147	0.143	-1.031	0.303	0.86
Street gang status (unknown)	0.023	0.047	0.49	0.624	1.02
Subject to T.I.S. (yes)	-0.181	0.091	-1.992	0.046	0.83
Individual-level effects representing legal factors					
Number of offenses this ODR (two or more)	-0.217	0.042	-5.175	0.001	0.80
Offense classification (major)	-2.198	0.047	-46.804	0.001	0.11
Prior level 100 violent offense (current incarceration) (yes)	0.100	0.119	0.846	0.398	1.11
Found guilty of any prior offense (current incarceration) (yes)	-0.081	0.057	-1.417	0.156	0.92

Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.319	0.051	-6.251	0.001	0.73
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.078	0.047	-1.669	0.095	0.92
<ul style="list-style-type: none"> • Sig. value required for statistically significant relationship between individual-level effects and dependent variable $\leq .05$ 					
Variance between prisons observed (group-level)				36.0%	
Variance observed at individual-level (effects representing legal and extralegal factors)				64.0%	
Conditional R ² (a pseudo R ² measure)				.542	
Statistics underlying this model can be found in Appendix C					

CHAPTER SIX

RESULTS: SECTION A

This section of Chapter Six provides an overview of level 400 offenses, the possible disciplinary sanctions for these offenses, and the disciplinary sanctions imposed upon the prisoners found guilty of committing them. The official definition of individual offenses according to IDOC can be found in Appendix A.

Two offenses, 403—Disobeying a Direct Order and 404—Violation of Rules constituted the majority (82.4%) of all level 400 offenses prisoners included in the sample were found guilty of committing. The most frequent offense was 404—Violation of Rules (43.8%), followed by 403—Disobeying a Direct Order (38.6%). The remaining three offenses constituted 17.6% of the level 400 offenses prisoners in the sample were found guilty of committing.

Table 601. Level 400 Offenses: Specific Offenses by Frequency of Offenses

Offense Number	Offense Description	n	% within level 400 offenses	% within all offenses
402	Health, Smoking, or Safety Violations	375	2.6%	0.9%
403	Disobeying a Direct Order	5,661	38.6%	13.3%
404	Violation of Rules	6,428	43.8%	15.1%
405	Failure to Report	1,644	11.2%	3.9%
406	Trading or Trafficking	555	3.8%	1.3%
Totals		14,663	100%	34.4%

Table 602 details possible disciplinary sanctions for specific offenses according to DR 504. Not all possible disciplinary sanctions are listed within Table 602, a replica of the official table listed in section 504 of 20 Ill. Adm. Code. Sanctions such as verbal warning, restitution, and others are listed within the text of Department Rule 504 (DR 504). As demonstrated by

Table 404 in the Methods chapter (page 35) and Table 602 below, possible disciplinary sanctions for offenses vary between offense levels more so than within offense levels. The median and mean sanction for the disciplinary sanctions imposed upon prisoners found guilty of a level 400 offense listed in days are also reported within the table.

Table 602. Level 400 Offenses: Specific Offense by Maximum Possible Sanction for Offense

Offense Number	Offense Description	Maximum Sanctions for Level 400 Offenses by Type			
		Loss or Restriction of Privileges	B or C Grade	Good Time Revocation	Segregation
402	Health, Smoking, or Safety Violations	90 days	90 days	90 days	90 days
403	Disobeying a Direct Order	90 days	90 days	90 days	90 days
404	Violation of Rules	30 days	30 days	30 days	30 days
405	Failure to Report	30 days	30 days	30 days	30 days
406	Trading or Trafficking	60 days	60 days	30 days	30 days
Median sanction possible by type		60 days	60 days	30 days	30 days
Summary of sanctions listed within DR 504 table imposed in response to level 400 offenses					
Median sanction per type received by level 400 offenders		N/A*	0 days	0 days	0 days
Mean sanction per type received by level 400 offenders		N/A*	6 days	1 days	3 days
Skewness/kurtosis values per sanction type listed			3.28/11.7	11.36/135.1	5.2/31.68
* quantifying Loss or Restriction of Privileges by days was not feasible given the structure of this variable as it was recorded in the disciplinary data set provided by IDOC					

Tables 603 and 604 demonstrate the frequency of the disciplinary sanctions used as dependent variables in the analyses of the level 400 offenses reported in Chapter Six: Results—B & C.

Table 603. Level 400 Offenses: Frequency of Disciplinary Sanctions Used as Dependent Variables

Sanction Imposed	n	%	Cumulative %
Verbal warning	5,870	40.0%	40.0%
Loss or restriction of privilege(s) only	5,402	36.9%	76.9%
Other (harsher) sanction imposed	3,391	23.1%	100%
Totals	14,663	100%	

Details concerning the bivariate statistical tests used in the analysis reported below can be found in the Methods chapter of this work beginning on page 24. As stated in the Methods chapter, all requirements were met for valid Chi-squared used throughout this analysis.

Results of the bivariate statistical analyses reported in Table 604 suggested the existence of a statistically significant association between level 400 offenses and both of the dependent variables, “verbal warning (no = 0/yes = 1)” and “loss or restriction of privileges only (no = 0/yes = 1)” ($p < .001$). The strength of the association between offense and both dependent variables were moderate and strong with Cramer’s V values of 0.159 and 0.273 respectively.

The purpose of including of Table 604 in this instance was to provide additional insight into the application of disciplinary sanctions imposed for specific level 400 offenses, as specific offense was not included as a variable in the statistical models reported herein so the models would be parsimonious and effective tools for accomplishing the objective of this research. The inclusion of the level 400 offenses as a variable into the statistical models did not measurably enhance the predictive validity of the models, alter the magnitude of effect of variables upon the dependent variables, nor are individual offenses theoretically relevant to the stated research objective in and of themselves.

Table 604. Level 400 Offenses: Specific Offense by Frequency of Disciplinary Sanctions Used as Dependent Variables

Offense Number	Offense Description	n	% Received Verbal Warning Only	% Received Privilege Loss Only	% Received Other Sanction(s)
402	Health, Smoking, or Safety Violations	375	34.7%	29.0%	36.3%
403	Disobeying a Direct Order	5,661	30.9%	32.9%	36.2%
404	Violation of Rules	6,428	45.8%	39.8%	14.4%
405	Failure to Report	1,644	50.7%	38.3%	11.0%
406	Trading or Trafficking	555	38.4%	42.9%	18.7%
Total		14,663	40.0%	36.9%	23.1%

Results of bivariate statistical analyses for specific offenses and dependent variables: Verbal Warning (no/yes): $X^2 = 370.25$, $p < .001$; Cramer's $V = .159$, $p < .001$ Loss or restriction of Privileges only (no/yes): $X^2 = 657.64$, $p < .001$; Cramer's $V = .273$, $p < .001$
Totals equal 100% for three sanction types listed in table for each offense

Tables 605a through 605c show the frequency and severity of disciplinary sanctions imposed upon prisoners who were found guilty of a level 400 offense not specified within Chapter Six: Results—B & C of this work. The following disciplinary sanctions were imposed upon the 3,391 prisoners who did not receive either a verbal warning or a loss or restriction of privileges only as a disciplinary sanction for a level 400 offense.

Table 605a. Level 400 Offenses: Good Time Revocation Summary

221 (1.5%) of prisoners found guilty of a level 400 offense lost good time as a sanction. The number of good time in days these prisoners lost is detailed below.			
Good time lost	n	%	Cumulative %
1 - 15 days	57	25.8%	25.8%
16 - 30 days	76	34.4%	60.2%
31 - 60 days	10	4.5%	64.7%
61 - 90 days	78	35.3%	100%
Totals	221	100%	

Table 605b. Level 400 Offenses: C Grade Summary

2,230 (15.2%) of prisoners found guilty of a level 400 offense had C Grade imposed upon them as a sanction. The number of days these prisoners were placed on C Grade status is detailed below.			
C Grade	n	%	Cumulative %
1 - 15 days	17	0.8%	0.8%
16 - 30 days	1,737	77.9%	78.7%
31 - 60 days	208	9.3%	88.0%
61 - 90 days	268	12.0%	100%
Totals	2,230	100.0%	

Table 605c. Level 400 Offenses: Segregation Summary

1,793 (12.2%) of prisoners found guilty of a level 400 offense were placed in disciplinary segregation as a sanction. The number of days these prisoners were placed in disciplinary segregation is detailed below.			
Disciplinary Segregation	n	%	Cumulative %
1 - 15 days	933	52.0%	52.0%
16 - 30 days	640	35.7%	87.7%
31 - 45 days	10	0.6%	88.3%
60 days	76	4.2%	92.5%
90 days	134	7.5%	100%
Totals	1,793	100%	

Additionally, 33 (0.2%) of prisoners found guilty of a level 400 offense received monetary restitution as a sanction. How much monetary restitution IDOC collected from prisoners who had this sanction imposed upon them is unknown because this information is not recorded within the disciplinary dataset.

It is important to note that the disciplinary sanctions listed above in Tables 605a through 605c are not mutually exclusive. A prisoner is subject to receive any combination of the sanctions allowed by DR 504 as a result of being found guilty of a level 400 offense. The only mutually exclusive disciplinary sanctions that could have been imposed upon a prisoner found guilty of a level 400 offense were two values associated with the dependent variables used for the analyses, “verbal warning = yes (coded as 1)” and “loss or restriction of specific privileges only = yes (coded as 1)”. Also, Tables 605a through 605c merely report the sanctions imposed on prisoners who received these sanctions. This must be considered when reading the tables, as the majority (76.9%) of prisoners found guilty of a level 400 offense had zero days of C grade, disciplinary segregation, or good time revocation imposed upon them as a disciplinary sanction. Failure to highlight this caveat may lead to misinterpretation of the reported sanctions. To be clear, the median of days of C grade, disciplinary segregation, or good time revoked in response to level 400 offenses were zero.

CHAPTER SIX

RESULTS: SECTION B

The analyses reported within this Chapter Six: Results—B were conducted using a subset of the final sample (n = 42,637), consisting of all prisoners who were found guilty of a level 400 offense (n = 14,663). The dependent variable of the analyses reported in this section measured whether a prisoner received a “verbal warning (no = 0/yes = 1)” as a disciplinary sanction for an offense.

This chapter was organized as follows: first, frequencies of the dependent variable and continuous independent variables representing extralegal factors were reported. Within this section, the composition of the sample of prisoners found guilty of a level 400 offense were compared to the composition of the population of prisoners who exited IDOC during SFY 2011 through the end of SFY 2014; second, the frequency of the primary independent variable of interest (prison) and the results of a bivariate statistical analysis of the relationship between this variable and the dependent variable were reported; third, the frequencies of categorical independent variables representing extralegal factors, and the results of bivariate statistical analyses of the relationship between these variables and the dependent variable were reported; fourth, the frequencies of partially ordered independent variables representing legal factors and the results of bivariate statistical analyses of the relationship between these variables and the dependent variable were reported; fifth, the results of single-level logistic regression models were reported; lastly, the results of the multi-level logistic regression model was reported.

A full description of the variables discussed herein may be viewed in pages 38 through 52 of the Methods chapter.

Table 606. Frequency of Dependent Variable: Verbal Warning (Level 400 Offenses)

	n	No	Yes
Verbal Warning	14,663	8,793	5,870
		60.0%	40.0%

Comparison of Subset of Sample Analyzed in this Chapter Six: Section—B to Population for Representativeness.

The similarities between key demographic identifiers such as the age and race of the population of prisoners who exited IDOC between SFY 2011 and 2014, all 91,846 prisoners contained within the exit file dataset, and the sample of 14,663 prisoners found guilty of a level 400 offense suggest that the sample is representative of the population the sample was drawn from.

The mean age of prisoners at the time they were found guilty of a level 400 offense was 34.02 years of age. The mean age of the population of prisoners who exited IDOC between SFY 2011 and 2014 was 34.65 years of age, a difference of approximately 7 months from the mean age of prisoners when they were found guilty of a level 400 offense. The mean amount of actual days of a prison sentence served by a prisoner found guilty of a level 400 offense (variable labeled sentence) was 670.83. The mean amount of actual days served by all prisoners contained within the exit file dataset was 531.55, a difference of -139.28 days or 4.57 fewer months.

The “sentence” variable was reported in the table below because it is a clearer indicator of the actual time served by prisoners than the logarithmically transformed version of the “sentence” variable that was used throughout the analyses reported herein. The actual amount of time a prisoner served measured in days was not subjected to bivariate statistical analyses or inserted into the single-level or multi-level statistical models.

Table 607. Univariate Statistics of Continuous Independent Variables Representing Extralegal Factors (Level 400 Offenses)

Independent variables	n	mean	S.D.	Min.	Max.	Skewness	Kurtosis
Age at time of offense	14,663	34.02	10.93	17	86	.655	-.290
Sentence (in days) Log 10 transformation	14,663	2.62	.41	.95	4.14	.412	.531
Sentence (in days)— <i>not used in analyses</i>	14,663	670.83	990.16	9	13,698	5.29	38.38

The figures reported in Table 608b demonstrate that the racial composition of the sample of prisoners who were found guilty of a level 400 offense is effectively identical to the racial composition of all prisoners who exited IDOC between SFY 2011 and 2014. The racial composition of all prisoners contained within the exit file dataset is 56.6% Black, 12.7% Hispanic, 0.5% other, and 30.2% White. The difference between the sample and the exit file dataset is as follows: Black +0.2%, Hispanic -0.1%, other 0.0%, and White -0.1%.

The figures reported in Table 608b concerning the number of prisoners sentenced under Truth In Sentencing (T.I.S.) guidelines by a criminal court included in the sample are representative of the prisoners contained within the exit file dataset. Of the prisoners contained within the exit file dataset, 4.3% were sentenced under T.I.S, a difference of 0.6% from the prisoners found guilty of a level 400 offense.

Bivariate Analyses; Frequencies of Variables Included in Bivariate Analyses, Single-Level and Multi-Level Logistic Regression Models.

Details concerning the bivariate statistical tests used in the analyses reported below can be found in the Methods chapter of this work beginning on page 24. As stated in the Methods chapter, all requirements were met for valid Chi-squared and t tests used throughout these analyses.

The Chi-squared test suggested that a statistically significant association existed between the prison in which a prisoner was subjected to the disciplinary process and the dependent

variable ($X^2 = 1,373.03$; $p < .001$). The strength of the association between these two variables was strong, as indicated by the Cramer's V value of 0.306 ($p < .001$).

Overall, 40.0% of prisoners received a verbal warning as a disciplinary sanction in response to a level 400 offense across the 27 prisons included in the sample. Table 608a demonstrates that there was substantial variation in the percentage of level 400 offenses resulting in a verbal warning between prisons. When treated as a continuous variable, the percentage of verbal warnings imposed across prisons was normally distributed (skewness = -0.326, kurtosis = -0.645) with values ranging from 1.9% (P16) to 69.5% (P2). The mean percentage of verbal warnings imposed across prisons was 40.8%, and one standard deviation from the mean was $\pm 15.9\%$, a range of 31.8%. Thus, within 18 of the 27 prisons (approximately 68%) included in the sample, a verbal warning was used as a disciplinary sanction in response to 24.9% to 56.7% of level 400 offenses.

The strength of the association between the primary independent variable of interest (prison) and the dependent variable supports the hypothesis that the severity of disciplinary sanctions imposed by prison officials vary according to the prison in which a prisoner is subjected to the disciplinary process.

Table 608a. Bivariate Analysis: Prison (Primary Independent Variable) by Verbal Warning; Frequency of Prison (Level 400 Offenses)

Prison	n	Verbal Warning: No (n=8,793)	Verbal Warning: Yes (n=5,870)	Total: Outcome Measure (n=14,663)	% of Sample
$X^2 = 1,373.03$, 26 df, $p < .001$; Cramer's V = .306, $p < .001$					
P1	227	64.8%	35.2%	100%	1.5%
P2	786	30.5%	69.5%	100%	5.4%
P3	442	41.9%	58.1%	100%	3.0%
P4	354	37.6%	62.4%	100%	2.4%
P5	603	90.4%	9.6%	100%	4.1%
P6	151	51.0%	49.0%	100%	1.0%
P7	802	55.4%	44.6%	100%	5.5%

P8	989	69.4%	30.6%	100%	6.7%
P9	355	71.3%	28.7%	100%	2.4%
P10	566	61.3%	38.7%	100%	3.9%
P11	334	44.3%	55.7%	100%	2.3%
P12	537	79.1%	20.9%	100%	3.7%
P13	580	46.6%	53.4%	100%	4.0%
P14	243	48.1%	51.9%	100%	1.7%
P15	549	46.8%	53.2%	100%	3.7%
P16	55	90.9%	9.1%	100%	0.4%
P17	693	65.4%	34.6%	100%	4.7%
P18	541	54.2%	45.8%	100%	3.7%
P19	771	76.5%	23.5%	100%	5.3%
P20	598	83.9%	16.1%	100%	4.1%
P21	623	41.7%	58.3%	100%	4.2%
P22	405	44.0%	56.0%	100%	2.8%
P23	84	46.4%	53.6%	100%	0.6%
P24	391	61.1%	38.9%	100%	2.7%
P25	1,623	62.5%	37.5%	100%	11.1%
P26	874	63.5%	36.5%	100%	6.0%
P27	487	71.0%	29.0%	100%	3.3%
Totals:	14,663	60.0%	40.0%	100%	100%

The t test indicated that there was a statistically significant difference in the mean age of prisoners who received a verbal warning compared to those who did not ($t = -12.08$, $p < .001$).

The test showed that on average, prisoners who received a verbal warning as a sanction for a level 400 offense were 2.2 years older than prisoners who did not receive a verbal warning. The Pearson's r test suggested the existence of a statistically significant association between "age at time of offense" and the dependent variable ($p < .001$). Also, the direction of the association was positive, suggesting that an older prisoner was more likely to receive a verbal warning in response to a level 400 offense than a younger prisoner. The strength of association between these variables, however, was extremely weak with a Pearson's r value of 0.10.

The Chi-square test indicated the existence of a statistically significant association between the dependent variable and the variable "street gang status" ($X^2 = 22.17$, $p < .001$), but

the strength of the association between these variables was extremely weak as suggested by a Cramer's V value of 0.039 ($p < .001$).

The t test indicated the absence of a statistically significant difference in the mean length of sentence actually served between prisoners who received a verbal warning compared to those who did not ($t = -1.02, p = .310$).

The Chi-square test indicated the absence of a statistically significant association between the dependent variable and the variables "race" ($X^2 = 1.3, p = .728$) and "subject to T.I.S." ($X^2 = .21, p = .650$).

Table 608b. Bivariate Analyses: Independent Variables Representing Extralegal Factors by Verbal Warning; Frequency of Variables Representing Extralegal Factors (Level 400 Offenses)

Dependent Variable (right) Independent Variables (below)	Verbal Warning: No (n=8,793)	Verbal Warning: Yes (n=5,870)	Total: Outcome Measure (n=14,663)	% of Sample
Age at time of offense:	$t = -12.08, p < .001; r = .10, p < .001$			
mean	33.13	35.35	34.02	100%
Sentence (in days) after Log 10 transformation:	$t = -1.02, p = .310; r = .01, p = .310$			
mean	2.62	2.62	2.62	100%
Race:	$X^2 = 1.3, 3 \text{ df}, p = .728; \text{Cramer's } V = .009, p = .728$			
Black (n=8,334)	60.4%	39.6%	100%	56.8%
Hispanic (n=1,848)	59.7%	40.3%	100%	12.6%
Other (n=73)	58.9%	41.1%	100%	0.5%
White (n=4,408)	59.3%	40.7%	100%	30.1%
Totals (n=14,663)	60.0%	40.0%	100%	100%
Street gang status:	$X^2 = 22.17, 2 \text{ df}, p < .001; \text{Cramer's } V = .039, p < .001$			
Active (n=4,963)	62.3%	37.7%	100%	33.8%
Inactive (n=310)	52.9%	47.1%	100%	2.1%
Unknown (n=9,390)	58.9%	41.1%	100%	64.0%
Totals (n=14,663)	60.0%	40.0%	100%	100%
Subject to T.I.S.:	$X^2 = 0.21, 1 \text{ df}, p = .650; \text{Phi} = -.004, p = .650$			
No (n=13,939)	59.9%	40.1%	100%	95.1%
Yes (n=724)	60.8%	39.2%	100%	4.9%
Totals (n=14,663)	60.0%	40.0%	100%	100%

The Chi-square test indicated the existence of a statistically significant association between the dependent variable and all variables representing legal factors reported in Table 608c ($p < .001$).

“Offense classification” had the strongest bivariate association with the dependent variable in comparison to other variables representing legal factors. The strength of the association between the variable “offense classification” and the dependent variable was weak as suggested by a Phi value of -0.260 ($p < .001$). The Phi value indicated a negative directional association between these variables, signifying that an offense classified as minor increased the likelihood of a prisoner receiving a verbal warning as a disciplinary sanction in response to a level 400 offense. Of the prisoners whose offense was classified as minor, 47.5% received a verbal warning as disciplinary sanction, versus 18.3% of prisoners whose offense was classified as major.

The strength of the association between the variable “found guilty of any prior offense” and the dependent variable was weak as suggested by a Phi value of -0.241 ($p < .001$). The negative Phi value indicated an inverse association between these variables, signifying that a prisoner with no disciplinary history during their term of incarceration was more likely to receive a verbal warning as a disciplinary sanction in response to a level 400 offense than a prisoner with a disciplinary history. Of the prisoners who had not been found guilty of any prior offense, 57.8% received a verbal warning as disciplinary sanction, versus 32.2% of prisoners who had previously been found guilty of any prior offense.

The strength of the association between the remaining variables representing legal factors and the dependent variable were extremely weak to weak with Phi values (absolute value) ranging from 0.030 to 0.134.

Table 608c. Bivariate Analyses: Independent Variables Representing Legal Factors by Verbal Warning; Frequency of Variables Representing Legal Factors (Level 400 Offenses)

Dependent Variable (right) Independent Variables (below)	Verbal Warning: No (n=8,793)	Verbal Warning: Yes (n=5,870)	Total: Outcome Measure (n=14,663)	% of Sample
Number of offenses this ODR:	$X^2 = 12.95, 1 \text{ df}, p < .001; \text{Phi} = -.030, p < .001$			
One (n=12,136)	59.3%	40.7%	100%	82.8%
Two or more (n=2,527)	63.2%	36.8%	100%	17.2%
Totals (n=14,663)	60.0%	40.0%	100%	100%
Offense classification:	$X^2 = 988.08, 1 \text{ df}, p < .001; \text{Phi} = -.260, p < .001$			
Minor (n=10,933)	52.5%	47.5%	100%	74.6%
Major (n=3,730)	81.7%	18.3%	100%	25.4%
Totals (n=14,663)	60.0%	40.0%	100%	100%
Prior level 100 violent offense (current incarceration):	$X^2 = 26.76, 1 \text{ df}, p < .001; \text{Phi} = -.043, p < .001$			
No (n=14,290)	59.6%	40.4%	100%	97.5%
Yes (n=373)	72.9%	27.1%	100%	2.5%
Totals (n=14,663)	60.0%	40.0%	100%	100%
Found guilty of any prior offense (current incarceration):	$X^2 = 852.24, 1 \text{ df}, p < .001; \text{Phi} = -.241, p < .001$			
No (n=4,486)	42.2%	57.8%	100%	30.6%
Yes (n=10,177)	67.8%	32.2%	100%	69.4%
Totals (n=14,663)	60.0%	40.0%	100%	100%
Placed in disciplinary segregation prior to this offense (current incarceration):	$X^2 = 262.60, 1 \text{ df}, p < .001; \text{Phi} = -.134, p < .001$			
No (n=10,563)	55.9%	44.1%	100%	72.1%
Yes (n=4,095)	70.5%	29.5%	100%	27.9%
Totals (n=14,663)	60.0%	40.0%	100%	100%
Placed in disciplinary segregation during prior incarceration(s):	$X^2 = 64.19, 1 \text{ df}, p < .001; \text{Phi} = -.066, p < .001$			
No (n=10,563)	57.9%	42.1%	100%	72.0%
Yes (n=4,100)	65.2%	34.8%	100%	28.0%
Totals (n=14,663)	60.0%	40.0%	100%	100%

In summary, the results of the bivariate analyses suggested that the prison in which a prisoner was disciplined for an offense and two legal factors, “offense classification” and “found guilty of any prior offense” had the strongest bivariate associations with the dependent variable. Most of the variables representing extralegal factors, such as a prisoner’s demographic

characteristics did not have a statistically significant association or had a statistically significant but extremely weak association with the dependent variable.

Single-Level Logistic Regression Models for Verbal Warning as Disciplinary Sanction.

The results of three single-level logistic regression models also supported the hypothesis that the prison in which a prisoner was sanctioned for an offense will influence the severity of the sanction a prisoner received for a level 400 offense when the possible outcome was “verbal warning (no = 0/yes =1).” Model #1 included the primary variable of interest (prison) and all covariates representing extralegal and legal factors. Model #2 included all covariates representing extralegal and legal factors, but did not include the “prison” variable. Model #3 included the primary variable of interest (prison) and covariates representing legal factors. No covariate representing an extralegal factor was included in model #3.

“Prison” was the strongest predictor of the dependent variable after controlling for the influence of covariates representing extralegal and legal factors inserted into model #1, which is fully reported in Table 609a below. The statistics underlying model #2 and model #3, reported in Tables 609b and 609c, added further support to the hypothesis that the prison in which a prisoner is disciplined for an offense will influence the severity of the disciplinary sanction imposed.

P24 was the prison used as the reference category for the other 26 prisons included in model #1. P24 was selected as the reference category because the percentage of prisoners who received a “verbal warning” as a disciplinary sanction (38.9%) at this prison was closest to the mean value of verbal warnings imposed (40.0%) across the 27 prisons included in the sample. On the high end, prisoners disciplined for a level 400 offense at P2 were 610.5% more likely to receive a “verbal warning” as a disciplinary sanction than prisoners at P24. On the low end,

prisoners disciplined for a level 400 offense at P5 were 80.5% less likely to receive a “verbal warning” as a disciplinary sanction than prisoners at P24.

Compared to the pseudo R^2 values reported for model #1 shown in Table 609a (Cox & Snell = 0.231; Nagelkerke = 0.313), the value of the pseudo R^2 measures reported for model #2 were measurably lower (Cox & Snell = 0.144; Nagelkerke = 0.194) a difference of -0.087 and -0.119 respectively. These differences in the pseudo R^2 values suggested that the single-level logistic regression model with prison included as a variable was a better fit, or stronger model in comparison to model #2, which was limited to covariates representing extralegal and legal factors. The higher pseudo R^2 measures stemming from the model reported in Table 609a compared to the same measures stemming from model #2 also suggested that the model in which prison was included as a variable (model #1) explains a greater proportion of the variance of the latent variable (Hu, Shao, & Palta, 2006).

Additionally, the model reported in Table 609a (model #1) appeared to have more predictive validity in comparison to the model that did not include prison an independent variable (model #2). Model #1 accurately predicted whether or not a prisoner received a verbal warning as a disciplinary sanction 72.7% (C.I. 95%) of the time, while model #2 accurately predicted the outcome 68.8% (C.I. 95%) of the time, a difference of -3.9%.

In addition to supporting the hypothesis that the prison in which a prisoner is disciplined for an offense influences the severity of the disciplinary sanction imposed, Tables 609a through 609c suggested that the covariates representing extralegal factors included in model #1 and model #2 did not add much insight as to what factors are determinative of the severity of disciplinary sanctions imposed for level 400 offenses. For example, the model that included “prison” and covariates representing legal factors only (model #3) produced results similar to

model #1. The pseudo R^2 measures for model #3 were a value of 0.214 for Cox & Snell and a value of 0.289 for Nagelkerke, a relatively minor respective difference of -0.017 and -0.024 from the pseudo R^2 measures for model #1. Additionally, the predictive validity of model #3 was similar to model #1. Model #3 accurately predicted whether or not a prisoner received a verbal warning as a disciplinary sanction 72.0% (C.I. 95%) of the time, a difference of -0.7% in comparison to model #1.

Of the covariates included in model #1, two stood out as the strongest predictors of whether or not a prisoner received a “verbal warning” as a disciplinary sanction. Both covariates represented legal factors. The Wald statistic was used as the benchmark to determine the strength of variables in explaining the dependent variable, relative to and controlling for the influence of other variables inserted into the model.

The results of model #1 suggested that “offense classification” was highly predictive of the dependent variable. Prisoners sanctioned for an offense classified as major were 81.4% less likely to receive a “verbal warning” as a disciplinary sanction in comparison to prisoners sanctioned for a level 400 offense that was classified as minor. Also, prisoners who were found guilty of an offense during their current incarceration prior to the offense they were sanctioned for in this instance were 77.8% less likely to receive a “verbal warning” in comparison to prisoners without a disciplinary history during their current incarceration.

Although the statistics underlying models one through three are reported in Tables 609a through 609c, the full results of model #2 and model #3 were not presented in tabular form below for brevity’s sake. The Beta, standard error, Wald, and p values associated with covariates inserted into model #2 and model #3 were not markedly different than what was reported in model #1. Complete tables of results of models #2 and #3 are available in Appendix B.

Table 609a. Model #1: Single-level Logistic Regression Results for Verbal Warning as Disciplinary Sanction (Level 400 Offenses)

Primary Independent Variable:	B	S.E.	Wald	df	Sig.	Exp(B)
Prison						
P24— <i>Reference Category</i>			1305.811	26	0.000	
P1	0.478	0.194	6.059	1	0.014	1.613
P2	1.961	0.143	188.436	1	0.000	7.105
P3	1.290	0.155	69.173	1	0.000	3.633
P4	1.193	0.163	53.742	1	0.000	3.298
P5	-1.635	0.184	79.301	1	0.000	0.195
P6	1.056	0.216	23.990	1	0.000	2.875
P7	0.879	0.140	39.602	1	0.000	2.408
P8	0.154	0.135	1.294	1	0.255	1.167
P9	0.525	0.178	8.739	1	0.003	1.690
P10	0.760	0.152	25.078	1	0.000	2.137
P11	1.026	0.164	39.397	1	0.000	2.791
P12	-0.402	0.165	5.956	1	0.015	0.669
P13	0.970	0.144	45.469	1	0.000	2.638
P14	1.485	0.185	64.465	1	0.000	4.416
P15	1.169	0.148	62.530	1	0.000	3.220
P16	-0.451	0.512	0.777	1	0.378	0.637
P17	1.137	0.151	56.477	1	0.000	3.118
P18	1.055	0.150	49.206	1	0.000	2.872
P19	-0.603	0.145	17.272	1	0.000	0.547
P20	-0.341	0.169	4.102	1	0.043	0.711
P21	1.821	0.149	148.547	1	0.000	6.180
P22	1.167	0.156	56.001	1	0.000	3.212
P23	1.949	0.281	48.159	1	0.000	7.022
P25	0.393	0.128	9.348	1	0.002	1.481
P26	0.146	0.138	1.108	1	0.293	1.157
P27	0.468	0.163	8.232	1	0.004	1.596
Variables Representing Extralegal Factors						
Age at time of offense	0.018	0.002	93.860	1	0.000	1.019
Sentence (in days) Log 10 trans	0.738	0.061	147.004	1	0.000	2.093
Race (Black)— <i>Reference Category</i>			2.156	3	0.541	
Race (Hispanic)	-0.039	0.062	0.406	1	0.524	0.962
Race (Other)	-0.222	0.277	0.640	1	0.424	0.801
Race (White)	-0.058	0.047	1.549	1	0.213	0.943
Street gang status (active)— <i>Reference Category</i>			1.583	2	0.453	
Street gang status (inactive)	0.159	0.136	1.368	1	0.242	1.172
Street gang status (unknown)	-0.010	0.047	0.045	1	0.833	0.990
Subject to T.I.S. (no)	0.031	0.094	0.108	1	0.742	1.031

Variables Representing Legal Factors						
	0.018	0.002	93.860	1	0.000	1.019
Number of offenses this ODR (two or more)	-0.282	0.054	27.505	1	0.000	0.754
Offense classification (major)	-1.681	0.058	842.554	1	0.000	0.186
Prior level 100 violent offense (current incarceration) (yes)	-0.065	0.141	0.212	1	0.645	0.937
Found guilty of any prior offense (current incarceration) (yes)	-1.506	0.050	917.712	1	0.000	0.222
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.102	0.054	3.547	1	0.060	0.903
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.152	0.048	10.204	1	0.001	0.859
Constant	-3.329	0.216	236.602	1	0.000	0.036
<ul style="list-style-type: none"> • Sig. value required for statistically significant relationship between primary independent variable/covariates and dependent variable $\leq .05$ 						
Key Statistical Measures Associated With Model #1						
X ² /df	3,858.58/40		Cox & Snell R Square		.231	
p value	< .001		Nagelkerke R Square		.313	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Verbal Warning: No	Verbal Warning: Yes	% Correct			
Verbal Warning: No	7,138	1,655	81.2%			
Verbal Warning: Yes	2,341	3,529	60.1%			
Overall %				72.7%		

Table 609b. Model #2: Statistics Underlying Single-level Logistic Regression for Verbal Warning as Disciplinary Sanction (Level 400 Offenses)

Variables Included in Single-Level Logistic Regression Model #2				
Extralegal Factors	Age at time of offense; Sentence (in days) Log 10 trans; Race; Street Gang Status; Subject to T.I.S.			
Legal Factors	Number of offenses this ODR; Offense classification; Prior level 100 violent offense; Found guilty of any offense prior to this offense; Placed in disciplinary segregation prior to this offense; Placed in disciplinary segregation during prior incarceration(s)			
Key Statistical Measures Associated With Model #2				
X ² /df	2,271.52/14		Cox & Snell R Square	.144
p value	< .001		Nagelkerke R Square	.194

Classification Table (C.I. 95%)			
Observed	Predicted		
	Verbal Warning: No	Verbal Warning: Yes	% Correct
Verbal Warning: No	7,456	1,337	84.8%
Verbal Warning: Yes	3,244	2,626	44.7%
Overall %			68.8%

Table 609c. Model #3: Statistics Underlying Single-level Logistic Regression for Verbal Warning as Disciplinary Sanction (Level 400 Offenses)

Variables Included in Single-Level Logistic Regression Model #3			
Prison			
Legal factors	Number of offenses this ODR; Offense classification; Prior level 100 violent offense; Found guilty of any offense prior to this offense; Placed in disciplinary segregation prior to this offense; Placed in disciplinary segregation during prior incarceration(s)		
Key Statistical Measures Associated With Model #3			
X ² /df	3,524.50/32	Cox & Snell R Square	.214
p value	< .001	Nagelkerke R Square	.289
Classification Table (C.I. 95%)			
Observed	Predicted		
	Verbal Warning: No	Verbal Warning: Yes	% Correct
Verbal Warning: No	7,147	1,646	81.3%
Verbal Warning: Yes	2,464	3,406	58.0%
Overall %			72.0%

Multi-Level Logistic Regression Model for Verbal Warning as Disciplinary Sanction.

A multi-level statistical model was the appropriate tool for gauging variation in the severity of disciplinary sanctions imposed upon prisoners between and within prisons, as it was assumed that the disciplinary process nested within the 27 prisons included in this analysis was influenced by organizational and cultural factors unique to each prison (Butler & Steiner, 2017; Raundenbush and Bryk, 2002). While the results of the bivariate analyses and single-level logistic regression models reported above provided insight into the extent to which the prison in which a prisoner was subjected to the disciplinary process influenced the severity of the disciplinary sanction a prisoner received, use of a multi-level statistical model is the proper mode of analysis. Because prisoners were nested within prisons, which created distinct groups of

prisoners, the assumption of independence of all cases required for viable single-level models is violated (Maas & Hox, 2005). In other words, it is assumed that all prisoners subjected to the disciplinary process embedded in a prison were subjected to a similar contextual context unique to the prison.

In the multi-level model reported in Table 610, “prison” was a grouping variable rather than an independent variable. The variance in whether a prisoner received “verbal warning (no = 0/yes = 1)” as a disciplinary sanction for a level 400 offense existing at the group-level, or variance between prisons, was 13.1%. Thus, the results suggested that the prison in which a prisoner was subjected to the disciplinary process accounted for 13.1% of the variation in whether a prisoner received a verbal warning as a disciplinary sanction in response to a level 400 offense. This finding adds support to the hypothesis that the prison in which a prisoner was sanctioned will influence the severity of the disciplinary sanction a prisoner received.

The majority (86.9%) of the variance in the outcome of the dependent variable existed at the individual-level. The results of the model reported in Table 610 suggested that 86.9% of the variation in whether a prisoner received a verbal warning in response to a level 400 offense resulted from individual-level effects measuring prisoner characteristics or the characteristics of the offense. Echoing the findings of the bivariate statistical analyses and the single-level logistic regression models, variables representing select legal factors appeared to be the most predictive of the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included in the model.

As the Wald value reported in the results of the single-level logistic regression models were not reported in the output for the multi-level logistic regression models, the z value (absolute value) was used as the benchmark to determine how strongly associated individual-

level effects were with the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included into the model.

Similar to the findings of the single-level models, the individual-level effects “offense classification (minor/major)” and “found guilty of any prior offense (no/yes)” were the strongest predictors of the dependent variable after controlling for the influence of group-level variance and the influence of other variables included in the multi-level model. Prisoners sanctioned for an offense classified as major were 81.3% less likely to receive a verbal warning as a disciplinary sanction than prisoners sanctioned for a level 400 offense classified as minor (reference category). Also, prisoners who were found guilty of a prior offense during their current incarceration were 77.7% less likely to receive a verbal warning than prisoners without a disciplinary history during their current incarceration (reference category).

Of the other individual-level effects representing legal factors, “number of offenses this ODR” was more predictive of the dependent variable relative to other legal factors. Prisoners with more than one offense listed within an ODR were 24.3% less likely to receive a verbal warning as a disciplinary sanction than prisoners with one offense listed within an ODR (reference category). A prisoner who had been placed in disciplinary segregation during a previous term of incarceration, i.e. a recidivist, was approximately 14.1% less likely to receive a verbal warning in comparison to a prisoner who had not been placed in segregation during a prior incarceration in IDOC (reference category). The individual-level effects “prior level 100 violent offense” and “placed in disciplinary segregation prior to this offense (current incarceration)” did not have a statistically significant association with the dependent variable after controlling for the influence of the grouping variable and other individual-level effects.

The results of the multi-level model reported in Table 610 suggested that the individual-level effects “age at time of offense” and “sentence” were the individual-level effects with the strongest association with the dependent variable amongst the variables representing extralegal factors. For every one year older a prisoner was at the time of offense, the odds of the prisoner receiving a verbal warning increased by 1.8%. Contrary to the findings of the bivariate statistical analysis reported in Table 608b above, the results of the multi-level model suggested that there was a statistically significant association between sentence length and the dependent variable, and a prisoner’s odds of receiving a verbal warning increased as sentence length increased.

The individual-level effects “race,” “street gang status,” and “subject to T.I.S.” were not statistically significant predictors of the likelihood of a prisoner receiving a verbal warning after controlling for the influence of the grouping variable (prison) and other individual-level effects.

The results of the multi-level logistic regression model reported in Table 610 supported the hypothesis that the prison in which a prisoner was subjected to the prison disciplinary process will influence the severity of the disciplinary sanction a prisoner received, with 13.1% of the variance in whether a prisoner received a verbal warning existing at the group-level (prisons). Additionally, the results of the model suggested that two individual-level effects representing legal factors, “offense classification” and “found guilty of any prior offense” had the strongest association with the dependent variable after controlling for the influence of the grouping variable and the other individual-level effects included in the model.

Individual-level effects representing extralegal factors were not strong predictors of whether a prisoner received a verbal warning in comparison to legal factors according to the results of the multi-level logistic regression model reported below.

Table 610. Multi-Level Logistic Regression Results for Verbal Warning as Disciplinary Sanction (Level 400 Offenses)

Random effects:					
Groups name	Variance		S.D.		
Prisons (intercept)	0.6623		0.8138		
Number of observations: 14663, groups: Prisons, 27					
Fixed effects:					
	Estimate (B)	S.E.	z value	Sig.	Exp(B)
Intercept	1.140	0.168	6.801	0.001	3.126
Individual-level effects representing extralegal factors					
Age at time of offense (GMC)	0.018	0.002	9.652	0.001	1.018
Sentence (in days) Log10 trans (GMC)	0.736	0.061	12.121	0.001	2.089
Race (Hispanic)— <i>Reference Category (Black)</i>	-0.040	0.061	-0.648	0.517	0.961
Race (Other)	-0.220	0.276	-0.797	0.425	0.802
Race (White)	-0.059	0.047	-1.252	0.211	0.943
Street gang status (inactive)— <i>Reference Category (active)</i>	0.159	0.135	1.17	0.242	1.172
Street gang status (unknown)	-0.009	0.046	-0.188	0.851	0.991
Subject to T.I.S. (yes)	0.027	0.093	0.292	0.771	1.028
Individual-level effects representing legal factors					
Number of offenses this ODR (two or more)	-0.279	0.054	-5.19	0.001	0.757
Offense classification (major)	-1.679	0.058	-29.106	0.001	0.187
Prior level 100 violent offense (current incarceration) (yes)	-0.065	0.141	-0.462	0.644	0.937
Found guilty of any prior offense (current incarceration) (yes)	-1.502	0.050	-30.268	0.001	0.223
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.103	0.054	-1.901	0.057	0.902
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.152	0.047	-3.213	0.001	0.859
<ul style="list-style-type: none"> • Sig. value required for statistically significant relationship between individual-level effects and dependent variable $\leq .05$ 					
Variance between prisons observed (group-level)					13.1%
Variance observed at individual-level (effects representing legal and extralegal factors)					86.9%
Conditional R ² (a pseudo R ² measure)					.348
Statistics underlying this model can be found in Appendix C					

CHAPTER SIX

RESULTS: SECTION C

The analyses reported within this Chapter Six: Results—C were conducted using a sample consisting of any prisoner found guilty of a level 400 offense who did not receive a verbal warning as disciplinary sanction (n = 8,793). Thus, all cases included in the analyses reported within this section were coded as zero for receiving a verbal warning, and represent a subset of the final sample (n = 42,637) that met all eligibility criteria. The prisoners included in the sample (n = 8,793) constituted 60.0% of all prisoners found guilty of a level 400 offense (n = 14,663).

Of the two sets of analyses conducted on level 400 offenses, this is considered to be the more important of the two. The sample contains 8,793 prisoners, the majority (60.0%) of all prisoners found guilty of a level 400 offense. Additionally, and most significantly, the possible values of the dependent variable in this instance, “loss or restriction of privileges only (no = 0/yes = 1)” best represents harshness of disciplinary sanctions imposed upon prisoners. If the outcome of the dependent variable was yes (coded as 1), a prisoner’s disciplinary sanction was limited to a loss or restriction of privileges, arguably the second least severe disciplinary sanction that can be imposed upon a prisoner. If the outcome of the dependent variable was no (coded as 0), the harness of the disciplinary sanction imposed upon the prisoner increased, as the prisoner may have received one or more of the following sanctions: reduction in grade, disciplinary segregation, and revocation of good time.

This chapter was organized as follows: first, frequencies of the dependent variable and continuous independent variables representing extralegal factors were reported. Within this section, the composition of the sample of prisoners found guilty of a level 400 offense (no verbal warnings) were compared to the composition of the population of prisoners who exited IDOC during SFY 2011 through the end of SFY 2014; second, the frequency of the primary independent variable of interest (prison) and the results of a bivariate statistical analysis of the relationship between this variable and the dependent variable were reported; third, the frequencies of categorical independent variables representing extralegal factors, and the results of bivariate statistical analyses of the relationship between these variables and the dependent variable were reported; fourth, the frequencies of partially ordered independent variables representing legal factors and the results of bivariate statistical analyses of the relationship between these variables and the dependent variable were reported; fifth, the results of single-level logistic regression models were reported; lastly, the results of the multi-level logistic regression model was reported.

A full description of the variables discussed herein may be viewed in pages 38 through 52 of the Methods chapter.

Table 611. Frequency of Dependent Variable: Loss or Restriction of Privileges Only (Level 400 Offenses, No Verbal Warnings)

	n	No	Yes
Loss or restriction of privileges only	8,793	3,391	5,402
		38.6%	61.4%

Comparison of Subset of Sample Analyzed in this Chapter Six: Section—C to Population for Representativeness.

The similarities between key demographic identifiers such as the age and race of the population of prisoners who exited IDOC between SFY 2011 and 2014 (all 91,846 prisoners

contained within the exit file dataset) and the sample of 8,793 prisoners suggest that the sample is representative of the population the sample was drawn from. Additionally, the demographic characteristics of the sample are not markedly different from the sample of all prisoners found guilty of a level 400 offense used in the preceding results chapter.

The mean age of prisoners included in the sample at the time they were found guilty of level 400 offense was 33.13 years of age. The mean age of the population of prisoners who exited IDOC between SFY 2011 and 2014 was 34.65 years of age, a difference of approximately one year four months from the mean age of prisoners when they were found guilty of a level 400 offense. The mean amount of actual days of a prison sentence served by a prisoner included in the sample (variable labeled sentence) was 652.31. The mean amount of actual days served by all prisoners contained within the exit file dataset was 531.55, a difference of -120.76 days or 3.95 fewer months.

The variable “sentence” was reported in the table below because it is a clearer indicator of the actual time served by prisoners than the logarithmically transformed version of the variable “sentence” that was used throughout the analyses reported herein. The actual amount of time a prisoner served measured in days was not subjected to bivariate statistical analyses or inserted into the single-level or multi-level statistical models.

Table 612. Univariate Statistics of Continuous Independent Variables Representing Extralegal Factors (Level 400 Offenses, No Verbal Warnings)

Independent variables	n	mean	S.D.	Min.	Max.	Skewness	Kurtosis
Age at time of offense	8,793	33.13	10.97	17	86	.786	-.075
Sentence (in days) Log 10 transformation	8,793	2.61	.385	1.20	4.14	.461	.603
Sentence (in days)— <i>not used in analyses</i>	8,793	652.31	945.52	16	13,698	5.41	42.85

The figures reported in Table 613b demonstrate that the racial composition of the sample of prisoners who were found guilty of a level 400 offense are effectively identical to the racial

composition of all prisoners who exited IDOC between SFY 2011 and 2014. The racial composition of all prisoners contained within the exit file dataset is 56.6% Black, 12.7% Hispanic, 0.5% other, and 30.2% White. The difference between the sample and the exit file dataset is as follows: Black -0.6%, Hispanic +0.1%, other 0.0%, and White +0.4%.

The figures reported in Table 613b concerning the number of prisoners sentenced under Truth In Sentencing (T.I.S.) guidelines by a criminal court included in the sample are representative of the prisoners contained within the exit file dataset. Of the prisoners contained within the exit file dataset, 4.3% were sentenced under T.I.S, a difference of 0.7% from the sample prisoners found guilty of a level 400 offense.

Bivariate Analyses; Frequencies of Variables Included in Bivariate Analyses, Single-Level and Multi-Level Logistic Regression Models.

Details concerning the bivariate statistical tests used in the analyses reported below can be found in the Methods chapter of this work beginning on page 24. As stated in the Methods chapter, all requirements were met for valid Chi-squared and t tests used throughout these analyses.

The Chi-squared test suggested that a statistically significant association existed between the prison in which a prisoner was subjected to the disciplinary process and the dependent variable ($X^2 = 2,723, p < .001$). The strength of the association between these two variables was strong, as indicated by a Cramer's V value of 0.557 ($p < .001$). In this instance, "loss or restriction of privileges only = yes (coded as 1)" means that a prisoner had a less severe disciplinary sanction imposed upon them in comparison to prisoners who received another sanction(s) ("loss or restriction of privileges only = no (coded as 0)").

Overall, 61.4% of prisoners received a loss or restriction of privileges only as a disciplinary sanction in response to a level 400 offense across the 27 prisons included in the sample. Table 613a demonstrates that there was substantial variation in the percentage of level 400 offenses resulting in “loss or restriction of privileges only = yes (coded as 1)” between prisons. When treated as a continuous variable, the percentage of “loss or restriction of privileges only = yes” imposed across prisons was normally distributed (skewness = -0.219, kurtosis = -1.207) with values ranging from 5.4% (P2) to 95.6% (P13). The mean percentage of “loss or restriction of privileges only = yes” imposed across prisons was 56.3%, and one standard deviation from the mean was $\pm 29.2\%$, a range of 58.4%. Thus, within 18 of the 27 prisons (approximately 68%) included in the sample, a loss or restriction of privileges only was used as a disciplinary sanction in response to 27.1% to 85.5% of level 400 offenses.

The strength of the association between the independent variable of interest (prison) and whether loss or restriction of privileges only was imposed as a sanction for a level 400 offense supported the hypothesis that the severity of disciplinary sanctions imposed by prison officials will vary according to the prison in which a prisoner is subjected to the disciplinary process.

Table 613a. Bivariate Analysis: Prison (Primary Independent Variable) by Loss or Restriction of Privileges Only; Frequency of Prison (Level 400 Offenses, No Verbal Warnings)

Prison	n	Other Sanction (n=3,391)	Loss or Restriction of Privileges Only (n=5,402)	Total: Outcome Measure (n=8,793)	% of Sample
$X^2 = 2,723.44, 26 \text{ df}, p < .001; \text{Cramer's } V = .557, p < .001$					
P1	147	57.8%	42.2%	100%	1.7%
P2	240	94.6%	5.4%	100%	2.7%
P3	185	41.6%	58.4%	100%	2.1%
P4	133	6.0%	94.0%	100%	1.5%
P5	545	24.4%	75.6%	100%	6.2%
P6	77	42.9%	57.1%	100%	0.9%
P7	444	13.3%	86.7%	100%	5.0%

P8	686	57.1%	42.9%	100%	7.8%
P9	253	85.0%	15.0%	100%	2.9%
P10	347	53.0%	47.0%	100%	3.9%
P11	148	12.8%	87.2%	100%	1.7%
P12	425	53.2%	46.8%	100%	4.8%
P13	270	4.4%	95.6%	100%	3.1%
P14	117	67.5%	32.5%	100%	1.3%
P15	257	77.0%	23.0%	100%	2.9%
P16	50	94.0%	6.0%	100%	0.6%
P17	453	58.7%	41.3%	100%	5.2%
P18	293	53.9%	46.1%	100%	3.3%
P19	590	5.4%	94.6%	100%	6.7%
P20	502	48.8%	51.2%	100%	5.7%
P21	260	15.8%	84.2%	100%	3.0%
P22	178	13.5%	86.5%	100%	2.0%
P23	39	64.1%	35.9%	100%	0.5%
P24	239	11.7%	88.3%	100%	2.7%
P25	1,014	18.1%	81.9%	100%	11.6%
P26	555	14.1%	85.9%	100%	6.3%
P27	346	91.3%	8.7%	100%	3.9%
Totals:	8,793	38.6%	61.4%	100%	100%

The t test indicated the absence of a statistically significant difference in the mean age of prisoners who received a loss or restriction of privileges only compared to those who did not ($t = 2.21, p < .05$). The t test also indicated the absence of a statistically significant difference in the mean length of sentence actually served between prisoners who received a loss or restriction of privileges only compared to those who received a harsher sanction.

The Chi-square test indicated the absence of a statistically significant association between the dependent variable and the variables “race” ($X^2 = 11.57, p < .01$), “street gang status” ($X^2 = 13.69, p < .01$), and “subject to T.I.S.” ($X^2 = 10.55, p < .01$). As noted within Table 401 of the Methods chapter, a p value of .004 or less was required for a bivariate association to be deemed statistically significant after the Bonferroni Method was applied to the bivariate analyses reported in Chapter Six: Results—C.

Table 613b. Bivariate Analyses: Independent Variables Representing Extralegal Factors by Loss or Restriction of Privileges Only; Frequency of Variables Representing Extralegal Factors (Level 400 Offenses, No Verbal Warnings)

Dependent Variable (right) Independent Variables (below)	Other Sanction (n=3,391)	Loss or Restriction of Privileges Only (n=5,402)	Total: Outcome Measure (n=8,793)	% of Sample
Age at time of offense:	T = 2.21, p < .05; r = -.024, p < .05			
mean	33.46	32.93	33.13	100%
Sentence (in days) after Log 10 transformation:	t = 2.14, p < .05; r = -.023, p < .05			
mean	2.63	2.61	2.61	100%
Race:	X ² = 11.57, 3 df, p < .01; Cramer's V = .036, p < .01			
Black (n=5,030)	38.1%	61.9%	100%	57.2%
Hispanic (n=1,104)	35.8%	64.2%	100%	12.6%
Other (n=43)	27.9%	72.1%	100%	0.5%
White (n=2,616)	40.8%	59.2%	100%	29.8%
Totals (n=8,793)	38.6%	61.4%	100%	100%
Street gang status:	X ² = 13.69, 2 df, p < .01; Cramer's V = .039, p < .01			
Active (n=3,094)	41.1%	58.9%	100%	35.2%
Inactive (n=164)	40.9%	59.1%	100%	1.9%
Unknown (n=5,535)	37.1%	62.9%	100%	62.9%
Totals (n=8,793)	38.6%	61.4%	100%	100%
Subject to T.I.S.:	X ² = 10.55, 1 df, p < .01; Phi = -.035, p < .01			
No (n=8,353)	38.2%	61.8%	100%	95.0%
Yes (n=440)	45.9%	54.1%	100%	5.0%
Totals (n=8,793)	38.6%	61.4%	100%	100%

The Chi-square test indicated the existence of a statistically significant association between the dependent variable and all but one variable representing legal factors reported in Table 613c (p < .001).

“Offense classification” had the strongest bivariate association with the dependent variable in comparison to other variables representing legal factors. The strength of the association between “offense classification” and the dependent variable was strong as suggested by a Phi value of -0.566 (p < .001). The Phi value indicated a negative directional association between these variables, signifying that an offense classified as minor increased the likelihood of a prisoner receiving a loss or restriction of privileges only as a disciplinary sanction. Of the

prisoners whose offense was classified as minor, 81.5% received the disciplinary sanction loss or restriction of privileges only, versus 23.6% of prisoners whose offense was classified as major.

The strength of the association between the remaining variables representing legal factors and the dependent variable were extremely weak to weak with Phi values (absolute values) ranging from 0.051 to 0.196 ($p < .001$). Thus, the bivariate statistical analyses suggested that the variables representing legal factors other than “offense classification” did not have a strong, statistically significant association with the dependent variable.

The Chi-square test indicated the absence of a statistically significant association between the dependent variable and “number offenses this ODR” ($p < .05$). As noted within Table 401 of the Methods chapter, a p value of 0.004 or less was required for a bivariate association to be deemed statistically significant after the Bonferroni Method was applied to the bivariate analyses reported in Chapter Six: Results—C.

Table 613c. Bivariate Analyses: Independent Variables Representing Legal Factors by Loss or Restriction of Privileges Only; Frequency of Variables Representing Legal Factors (Level 400 Offenses, No Verbal Warnings)

Dependent Variable (right) Independent Variables (below)	Other Sanction (n=3,391)	Loss or Restriction of Privileges Only (n=5,402)	Total: Outcome Measure (n=8,793)	% of Sample
Number of offenses this ODR:	$X^2 = 4.79, 1 \text{ df}, p < .05; \text{Phi} = -.023, p < .05$			
One (n=7,197)	38.0%	62.0%	100%	81.8%
Two or more (n=1,596)	41.0%	59.0%	100%	18.2%
Totals (n=8,793)	38.6%	61.4%	100%	100%
Offense classification:	$X^2 = 2,817.97, 1 \text{ df}, p < .001; \text{Phi} = -.566, p < .001$			
Minor (n=5,744)	18.5%	81.5%	100%	65.3%
Major (n=3,049)	76.4%	23.6%	100%	34.7%
Totals (n=8,793)	38.6%	61.4%	100%	100%
Prior level 100 violent offense (current incarceration):	$X^2 = 87.93, 1 \text{ df}, p < .001; \text{Phi} = -.100, p < .001$			
No (n=8,521)	37.7%	62.3%	100%	96.9%
Yes (n=272)	65.8%	34.2%	100%	3.1%
Totals (n=8,793)	38.6%	61.4%	100%	100%

Found guilty of any prior offense (current incarceration):	$X^2 = 22.70, 1 \text{ df}, p < .001; \text{Phi} = .051, p < .001$			
No (n=1,892)	43.3%	56.7%	100%	21.5%
Yes (n=6,901)	37.3%	62.7%	100%	78.5%
Totals (n=8,793)	38.6%	61.4%	100%	100%
Placed in disciplinary segregation prior to this offense (current incarceration):	$X^2 = 337.27, 1 \text{ df}, p < .001; \text{Phi} = -.196, p < .001$			
No (n=5,906)	31.9%	68.1%	100%	67.2%
Yes (n=2,887)	52.2%	47.8%	100%	32.8%
Totals (n=8,793)	38.6%	61.4%	100%	100%
Placed in disciplinary segregation during prior incarceration(s):	$X^2 = 185.03, 1 \text{ df}, p < .001; \text{Phi} = -.145, p < .001$			
No (n=6,121)	33.9%	66.1%	100%	69.6%
Yes (n=2,672)	49.3%	50.7%	100%	30.4%
Totals (n=8,793)	38.6%	61.4%	100%	100%

In summary, the results of the bivariate analyses suggested that the prison in which a prisoner was disciplined for an offense and the legal factor “offense classification” had the strongest bivariate associations with the dependent variable. There was no statistically significant association between variables representing extralegal factors and the dependent variable.

Single-Level Logistic Regression Models for Verbal Warning as Disciplinary Sanction.

The results of three single-level logistic regression models also supported the hypothesis that the prison in which a prisoner was sanctioned for an offense will influence the severity of the sanction a prisoner received for a level 400 offense when the possible outcome was “loss or restriction of privileges only (no = 0/yes = 1).” In this instance, “loss or restriction of privileges only = yes (coded as 1)” means that a prisoner had a less severe disciplinary sanction imposed upon them in comparison to prisoners who received another sanction(s) (“loss or restriction of privileges only = no (coded as 0)”). Model #1 included the primary variable of interest (prison) and all covariates representing extralegal and legal factors. Model #2 included all covariates representing extralegal and legal factors, but did not include the “prison” variable. Model #3

included the primary variable of interest (prison) and covariates representing legal factors. No covariate representing an extralegal factor were included in model #3.

“Prison” was the second strongest predictor of the dependent variable after controlling for the influence of covariates representing extralegal and legal factors inserted into model #1, which is fully reported in Table 614a below. The statistics underlying model #2 and model #3, reported in Tables 614b and 614c, added further support to the hypothesis that the prison in which a prisoner is disciplined for an offense will influence the severity of the disciplinary sanction imposed.

P6 was the prison used as the reference category for the other 26 prisons included in model #1. P6 was selected as the comparison group because the percentage of prisoners who received a loss or restriction of privileges only as a disciplinary sanction (57.1%) at this prison was closest to the mean value of this sanction imposed (61.4%) throughout the 27 prisons included in the sample. On the high end, prisoners disciplined for a level 400 offense at P21 were 714.6% more likely to receive a loss or restriction of privilege only as a disciplinary sanction than prisoners at P6. On the low end, prisoners disciplined for a level 400 offense at P2 were 98.8% less likely to receive a loss or restriction of privilege only as a disciplinary sanction than prisoners at P6.

Compared to the pseudo R^2 values reported for model #1 shown in Table 614a (Cox & Snell = 0.451; Nagelkerke = 0.612), the value of the pseudo R^2 measures reported for model #2 were much lower (Cox & Snell = 0.299; Nagelkerke = 0.406) a difference of -0.152 and -0.206 respectively. These differences in the pseudo R^2 values suggested that the single-level logistic regression model with “prison” included as a variable was a better fit, or stronger model in comparison to model #2, which was limited to covariates representing extralegal and legal

factors. The higher pseudo R^2 measures stemming from the model reported in Table 614a compared to the same measures stemming from model #2 also suggested that the model in which prison was included as a variable (model #1) explains a greater proportion of the variance of the latent variable (Hu, Shao, & Palta, 2006).

Additionally, the model reported in Table 614a (model #1) appeared to have more predictive validity in comparison to the model that did not include “prison” as an independent variable (model #2). Model #1 accurately predicted whether or not a prisoner received a loss or restriction of privilege only as a disciplinary sanction 84.4% (C.I. 95%) of the time, while model #2 accurately predicted the outcome 79.7% (C.I. 95%) of the time, a difference of -4.7%.

In addition to supporting the hypothesis that the prison in which a prisoner is disciplined for an offense will influence the severity of the disciplinary sanction imposed, Tables 614a through 614c suggested that the covariates representing extralegal factors included in model #1 and model #2 did not add much insight as to what factors are determinative of the severity of disciplinary sanctions imposed for level 400 offenses. For example, the model that included “prison” and covariates representing legal factors only (model #3) produced results very similar to model #1. The pseudo R^2 measures for model #3 were a value of 0.449 for Cox & Snell and a value of 0.610 for Nagelkerke, both having a relatively miniscule difference of -0.002 from the pseudo R^2 measures for model #1. Additionally, the predictive validity of model #3 was identical to model #1. Model #3 accurately predicted whether or not a prisoner received “loss or restriction of privilege only” as a disciplinary sanction 84.4% (C.I. 95%) of the time, a difference of 0.0% in comparison to model #1.

Of the covariates included in model #1, one variable representing a legal factor stood out as the strongest predictor of whether or not a prisoner received a loss or restriction of privilege

only as a disciplinary sanction. The Wald statistic was used as the benchmark to determine the strength of variables in explaining the dependent variable, relative to and controlling for the influence of other variables inserted into the model. The results of model #1 suggested that “offense classification” was highly predictive of the dependent variable. Prisoners sanctioned for an offense classified as major were 95.7% less likely to receive a loss or restriction of privilege only (i.e. were sanctioned more harshly), as a disciplinary sanction in comparison to prisoners sanctioned for a level 400 offense that was classified as minor.

Although the statistics underlying models one through three are reported in Tables 614a through 614c, the full results of model #2 and model #3 were not presented in tabular form in the text here for brevity’s sake. The Beta, standard error, Wald, and p values associated with covariates inserted into model #2 and model #3 were not markedly different than what was reported in model #1. Complete tables of results of models #2 and #3 are available in Appendix B.

Table 614a. Model #1: Single-level Logistic Regression Results for Loss or Restriction of Privileges Only as Disciplinary Sanction (Level 400 Offenses, No Verbal Warnings)

Primary Independent Variable:	B	S.E.	Wald	df	Sig.	Exp(B)
Prison						
P6— <i>Reference Category</i>			1424.280	26	0.000	
P1	-0.606	0.379	2.560	1	0.110	0.545
P2	-4.439	0.423	109.869	1	0.000	0.012
P3	-0.657	0.361	3.318	1	0.069	0.518
P4	1.670	0.510	10.727	1	0.001	5.314
P5	0.057	0.331	0.030	1	0.863	1.059
P7	1.856	0.347	28.679	1	0.000	6.398
P8	-1.747	0.320	29.766	1	0.000	0.174
P9	-2.332	0.372	39.389	1	0.000	0.097
P10	-0.268	0.341	0.620	1	0.431	0.765
P11	0.523	0.421	1.547	1	0.214	1.688
P12	-0.408	0.334	1.492	1	0.222	0.665
P13	1.616	0.442	13.386	1	0.000	5.031
P14	-1.798	0.386	21.726	1	0.000	0.166
P15	-2.785	0.347	64.343	1	0.000	0.062
P16	-2.107	0.736	8.203	1	0.004	0.122

P17	0.358	0.328	1.190	1	0.275	1.430
P18	-1.380	0.339	16.546	1	0.000	0.252
P19	1.196	0.365	10.732	1	0.001	3.306
P20	0.155	0.328	0.224	1	0.636	1.168
P21	2.097	0.362	33.506	1	0.000	8.146
P22	0.905	0.405	4.983	1	0.026	2.472
P23	0.534	0.461	1.340	1	0.247	1.706
P24	0.421	0.380	1.226	1	0.268	1.523
P25	0.740	0.323	5.240	1	0.022	2.096
P26	0.961	0.341	7.930	1	0.005	2.614
P27	-2.477	0.377	43.145	1	0.000	0.084
Variables Representing Extralegal Factors						
Age at time of offense	-0.007	0.003	4.542	1	0.033	0.993
Sentence (in days) Log 10 trans	0.233	0.099	5.499	1	0.019	1.262
Race (Black)— <i>Reference Category</i>			10.582	3	0.014	
Race (Hispanic)	0.079	0.101	0.619	1	0.431	1.082
Race (Other)	0.627	0.436	2.070	1	0.150	1.872
Race (White)	-0.186	0.076	6.053	1	0.014	0.830
Street gang status (active)— <i>Reference Category</i>			0.018	2	0.991	
Street gang status (inactive)	-0.028	0.230	0.014	1	0.905	0.973
Street gang status (unknown)	-0.006	0.073	0.007	1	0.932	0.994
Subject to T.I.S. (no)	-0.083	0.149	0.309	1	0.578	0.920
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	0.009	0.085	0.010	1	0.919	1.009
Offense classification (major)	-3.154	0.082	1488.539	1	0.000	0.043
Prior level 100 violent offense (current incarceration) (yes)	-0.357	0.185	3.732	1	0.053	0.700
Found guilty of any prior offense (current incarceration) (yes)	0.024	0.090	0.069	1	0.793	1.024
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.236	0.080	8.803	1	0.003	0.790
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.148	0.073	4.128	1	0.042	0.862
Constant	-0.430	0.342	1.579	1	0.209	0.651
• Sig. value required for statistically significant relationship between primary independent variable/covariates and dependent variable $\leq .05$						
Key Statistical Measures Associated With Model #1						
X ² /df	5,267.13/40		Cox & Snell R Square		.451	
p value	< .001		Nagelkerke R Square		.612	

Classification Table (C.I. 95%)			
Observed	Predicted		
	Other Sanction	Loss or Restriction of Privileges Only	% Correct
Other Sanction	2,671	720	78.8%
Loss or Restriction of Privileges Only	649	4,753	88.0%
Overall %			84.4%

Table 614b. Model #2: Statistics Underlying Single-level Logistic Regression for Loss or Restriction of Privileges Only as Disciplinary Sanction (Level 400 Offenses, No Verbal Warnings)

Variables Included in Single-Level Logistic Regression Model #2			
Extralegal Factors	Age at time of offense; Sentence (in days) Log 10 trans; Race; Street Gang Status; Subject to T.I.S.		
Legal Factors	Number of offenses this ODR; Offense classification; Prior level 100 violent offense; Found guilty of any offense prior to this offense; Placed in disciplinary segregation prior to this offense; Placed in disciplinary segregation during prior incarceration(s)		
Key Statistical Measures Associated With Model #2			
X ² /df	3,120.42/14	Cox & Snell R Square	.299
p value	< .001	Nagelkerke R Square	.406
Classification Table (C.I. 95%)			
Observed	Predicted		
	Other Sanction	Loss or Restriction of Privileges Only	% Correct
Other Sanction	2,329	1,062	68.7%
Loss or Restriction of Privileges Only	720	4,682	86.7%
Overall %			79.7%

Table 614c. Model #3: Statistics Underlying Single-level Logistic Regression for Loss or Restriction of Privileges Only as Disciplinary Sanction (Level 400 Offenses, No Verbal Warnings)

Variables Included in Single-Level Logistic Regression Model #3			
Prison			
Legal factors	Number of offenses this ODR; Offense classification; Prior level 100 violent offense; Found guilty of any offense prior to this offense; Placed in disciplinary segregation prior to this offense; Placed in disciplinary segregation during prior incarceration(s)		
Key Statistical Measures Associated With Model #3			
X ² /df	5,246.67/32	Cox & Snell R Square	.449
p value	< .001	Nagelkerke R Square	.610

Classification Table (C.I. 95%)			
Observed	Predicted		
	Other Sanction	Loss or Restriction of Privileges Only	% Correct
Other Sanction	2,662	729	78.5%
Loss or Restriction of Privileges Only	642	4,760	88.1%
Overall %			84.4%

Multi-Level Logistic Regression Model for Loss or Restriction of Privileges Only as Disciplinary Sanction.

A multi-level statistical model was the appropriate tool for gauging variation in the severity of disciplinary sanctions imposed upon prisoners between and within prisons, as it was assumed that the disciplinary process nested within the 27 prisons included in this analysis was influenced by organizational and cultural factors unique to each prison (Butler & Steiner, 2017; Raundenbush and Bryk, 2002). While the results of the bivariate analyses and single-level logistic regression models reported above provided insight into the extent to which the prison in which a prisoner was subjected to the disciplinary process influenced the severity of disciplinary sanctions, use of a multi-level statistical model is the proper mode of analysis. Because prisoners were nested within prisons, which created distinct groups of prisoners, the assumption of independence of all cases required for viable single-level models was violated (Maas & Hox, 2005). In other words, it is assumed that all prisoners subjected to the disciplinary process embedded in a prison were subjected to a similar contextual context unique to the prison.

In the multi-level model reported in Table 615, “prison” was a grouping variable rather than an independent variable. The variance in whether a “prisoner received restriction or loss of privileges only (no = 0/yes = 1)” as a disciplinary sanction for a level 400 offense existing at the group-level, or variance between prisons, was 30.03%. Thus, the results suggested that the prison in which a prisoner was subjected to the disciplinary process accounted for 30.03% of the

variation in whether a prisoner received a loss or restriction of privileges only as a disciplinary sanction in response to a level 400 offense. This finding adds strong support to the hypothesis that the prison in which a prisoner was sanctioned will influence the severity of the disciplinary sanction a prisoner received. In this instance, “loss or restriction of privileges only = yes (coded as 1)” means that a prisoner had less severe disciplinary sanction imposed upon them in comparison to prisoners who received another sanction(s) (“loss or restriction of privileges only = no (coded as 0)”).

The majority (69.07%) of the variance in the outcome of the dependent variable existed at the individual-level. The results of the model reported in Table 615 suggested that 69.07% of the variation in whether a prisoner received a loss or restriction of privileges only in response to a level 400 offense resulted from individual-level effects measuring prisoner characteristics or the characteristics of the offense. Echoing the findings of the bivariate statistical analyses and the single-level logistic regression models, variables representing select legal factors appeared to be the most strongly associated with the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included in the model.

As the Wald value reported in the results of the single-level logistic regression models were not reported in the output for the multi-level logistic regression models, the z value (absolute value) was used as the benchmark to determine how strongly associated individual-level effects were with the dependent variable after controlling for the influence of the grouping variable (prison) and other individual-level effects included into the model.

Similar to findings of the single-level models, the individual-level effect “offense classification (minor/major)” was the strongest predictor of the dependent variable after controlling for the influence of group-level effects and other variables included in the multi-level

model. Prisoners sanctioned for an offense classified as major were 95.7% less likely to receive a loss or restriction of privileges only (i.e. received a harsher sanction) as a disciplinary sanction than prisoners sanctioned for a level 400 offense classified as minor (reference category).

Of the individual-level effects representing legal factors other than “offense classification,” “placed in disciplinary segregation prior to this offense (current incarceration)” had the strongest association with the dependent variable relative to other legal factors. Prisoners placed in disciplinary segregation for a prior offense were 21.6% less likely to receive a restriction or loss of privileges only as a disciplinary sanction than prisoners who had not been previously placed in disciplinary segregation current incarceration (reference category).

Prisoners who had been placed in disciplinary segregation during a prior incarceration, i.e. a recidivist, were 14% less likely to receive a loss or restriction of privileges only as a sanction than a prisoner who had not been placed in disciplinary segregation during a prior incarceration (reference category). Prisoners who had been found guilty of a prior level 100 violent offense were 30.3% less likely to receive a loss or restriction of privileges only than prisoners who had not been found guilty of a prior level 100 violent offense (reference category). As suggested by the absolute z values, however, the individual-level effects measuring a prisoner’s prior history of being placed in disciplinary segregation and having had committed a violent offense while in prison were only mildly associated with the dependent variable when compared to other individual-level effects representing legal factors. The individual-level effects “found guilty of any prior offense” and “number of offenses this ODR” were not statistically significant predictors of the dependent variable after controlling for the influence of the grouping variable and other variables included in the model.

Of the individual-level effects representing extralegal factors, “age at time of offense,” “sentence,” and one category within the “race” variable were statistically significant predictors of the dependent variable. The results of the multi-level model reported in Table 615 suggested that for every one year older a prisoner was at time of offense, the odds of them receiving a loss or restriction of privileges only as a sanction decreased by 0.7%. Prisoners who served longer sentences were more likely to receive a loss or restriction of privileges only as a disciplinary sanction than prisoners who served shorter sentences. Prisoners identified as White by IDOC were 26.9% less likely to receive a loss or restriction of privileges only than prisoners identified as Black (reference category).

The individual-level effects “street gang status” and “subject to T.I.S.” were not statistically significant predictors of the dependent variable after controlling for the influence of the grouping variable (prison) and other variables included in the model. Additionally, “race” was not a statistically significant predictor of the dependent variable for prisoners identified as Hispanic or “other race” relative to prisoners identified as Black (reference category).

The results of the multi-level logistic regression model reported below supported the hypothesis that the prison in which a prisoner was subjected to the prison disciplinary process will influence the severity of the disciplinary sanction a prisoner received, with 30.3% of the variance in whether a prisoner received a loss or restriction of privileges only as a disciplinary sanction existing at the group-level (prisons). Additionally, the results of the model suggested that an individual-level effect representing a legal factor, “offense classification” was most predictive of the dependent variable after controlling for the influence of the grouping variable and the other individual-level effects included in the model.

Individual-level effects representing extralegal factors were not strong predictors of whether a prisoner received a restriction or loss of privileges only when compared to legal factors according to results of the multi-level logistic regression model reported in Table 615.

Table 615. Multi-Level Logistic Regression Results for Loss or Restriction of Privileges Only as Disciplinary Sanction (Level 400 Offenses, No Verbal Warnings)

Random effects:					
Groups name	Variance		S.D.		
Prisons (intercept)	2.478		1.574		
Number of observations: 8793; groups: Prisons, 27					
Fixed effects:					
	Estimate (B)	S.E.	z value	Sig.	Exp(B)
Intercept	1.812	0.322	5.625	0.001	6.120
Individual-level effects representing extralegal factors					
Age at time of offense (GMC)	-0.007	0.003	-2.112	0.035	0.993
Sentence(in days) Log10 trans (GMC)	0.235	0.099	2.376	0.018	1.265
Race (Hispanic)— <i>Reference Category (Black)</i>	0.077	0.100	0.763	0.445	1.080
Race (Other)	0.626	0.435	1.438	0.151	1.870
Race (White)	-0.185	0.075	-2.453	0.014	0.831
Street gang status (inactive)— <i>Reference Category (active)</i>	-0.028	0.230	-0.123	0.902	0.972
Street gang status (unknown)	-0.005	0.073	-0.074	0.941	0.995
Subject to T.I.S. (yes)	-0.088	0.149	-0.591	0.555	0.916
Individual-level effects representing legal factors					
Number of offenses this ODR (two or more)	0.007	0.085	0.084	0.933	1.007
Offense classification (major)	-3.150	0.081	-38.706	0.001	0.043
Prior level 100 violent offense (current incarceration) (yes)	-0.361	0.184	-1.962	0.050	0.697
Found guilty of any prior offense (current incarceration) (yes)	0.029	0.090	0.321	0.748	1.029
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.244	0.079	-3.075	0.002	0.784
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.151	0.073	-2.083	0.037	0.860
<ul style="list-style-type: none"> • Sig. value required for statistically significant relationship between individual-level effects and dependent variable $\leq .05$ 					

Variance between prisons (group-level)	30.3%
Variance observed at individual-level (effects representing legal and extralegal factors)	69.7%
Conditional R ² (a pseudo R ² measure)	.597
Statistics underlying this model can be found in Appendix C	

CHAPTER SEVEN

RESULTS: SUBANALYSES OF KEY INDEPENDENT VARIABLES

These subanalyses of level 300 and 400 offenses are focused on two independent variables, “offense classification” and “race,” that were included in all bivariate analyses, single-level logistic regression models, and multi-level logistic regression models reported in Chapter Five: Results—B and C, and Chapter Six: Results—B and C. A full description of the variables discussed herein may be viewed within Chapter Four: Methods, pages 38 through 52.

Subanalysis A: Association Between the Variables Offense Classification and Prison.

The results of the analyses reported in Chapter Five: Results—B and C and Chapter Six: Results—B and C strongly suggested that the variable “offense classification,” a legal factor indicating whether an offense was classified as minor or major by a shift supervisor was highly predictive of the dependent variables in the analyses of level 300 and 400 offenses. “Offense classification” was also identified within the Introduction and Methods chapters of this work as a key point in the disciplinary process at which the discretionary authority of prison officials may be exercised in a way that reflects the prevailing cultural and bureaucratic norms of a particular prison. Thus, further probing of this variable’s association with “prison,” the primary independent variable of interest was warranted. The results of bivariate analyses of the association between “offense classification” and “prison” will be parsed by level 300 and 400 offenses, followed by a summary of findings.

Details concerning the bivariate statistical tests used in the analyses reported below can be found in the Methods chapter of this work beginning on page 24. As stated in the Methods chapter, all requirements were met for valid Chi-squared tests used throughout these analyses.

Level 300 Offenses.

The results of the Chi-square test suggested that a statistically significant association existed between the prison in which a prisoner was subjected to the disciplinary process and whether an offense was classified as minor or major by a prison's shift supervisor ($X^2 = 3657.17$, $p < .001$), and the strength of the association between these two variables was strong, as indicated by the Cramer's V value of 0.408 ($p < .001$).

Overall, 41.0% of level 300 offenses were classified as major by a prison's shift supervisor across the 27 prisons included in the sample. Table 701a demonstrates that there was substantial variation in the percentage of level 300 offenses classified as major between prisons. When treated as a continuous variable, the percentage of offenses classified as major was normally distributed (skewness = 0.545, kurtosis = -0.609) with values ranging from 14.1% (P4) to 97.3% (P16). The mean value of percentage of offenses classified as major was 43.8%, and one standard deviation from the mean was $\pm 23.8\%$, a range of 47.6%. Thus, within 18 of the 27 prisons (approximately 68%) included in the sample, 20.0% to 67.6% of level 300 offenses were classified as major.

Table 701a. Bivariate Analysis: Prison by Offense Classification for Level 300 Offenses

Prison	n	Offense Classification: Minor (n=12,964)	Offense Classification: Major (n=8,995)	Total: Offense Classification (n=21,959)	% of Sample
$X^2 = 3657.17$, 26 df, $p < .001$; Cramer's V = .408, $p < .001$					
P1	635	59.5%	40.5%	100%	2.9%
P2	1,011	80.1%	19.9%	100%	4.6%
P3	971	78.5%	21.5%	100%	4.4%
P4	927	85.9%	14.1%	100%	4.2%

P5	1,377	61.2%	38.8%	100%	6.3%
P6	484	66.1%	33.9%	100%	2.2%
P7	1,686	46.6%	53.4%	100%	7.7%
P8	694	47.3%	52.7%	100%	3.2%
P9	547	50.1%	49.9%	100%	2.5%
P10	952	46.1%	53.9%	100%	4.3%
P11	866	84.9%	15.1%	100%	3.9%
P12	653	55.3%	44.7%	100%	3.0%
P13	706	67.1%	32.9%	100%	3.2%
P14	448	52.0%	48.0%	100%	2.0%
P15	1,149	69.2%	30.8%	100%	5.2%
P16	147	2.7%	97.3%	100%	0.7%
P17	580	24.5%	75.5%	100%	2.6%
P18	462	78.6%	21.4%	100%	2.1%
P19	847	85.7%	14.3%	100%	3.9%
P20	704	18.5%	81.5%	100%	3.2%
P21	1,369	36.8%	63.2%	100%	6.2%
P22	492	80.1%	19.9%	100%	2.2%
P23	127	18.9%	81.1%	100%	0.6%
P24	720	84.0%	16.0%	100%	3.3%
P25	1,377	39.4%	60.6%	100%	6.3%
P26	1,458	71.5%	28.5%	100%	6.6%
P27	570	26.8%	73.2%	100%	2.6%
Totals:	21,959	59.0%	41.0%	100%	100%

Of the 21,959 prisoners found guilty of a level 300 offense included in the sample, 21,862 (99.6%) were subjected to the disciplinary process in the same prison where the offense occurred. Only 97 (0.4%) of prisoners found guilty of a level 300 offense included in the sample were disciplined in a prison other than the prison in which the offense occurred. Therefore, it was determined that prisoners transferred subsequent to an Offender Disciplinary Report (ODR) being issued did not create a confounding effect in the analysis reported above.

A bivariate statistical test was also used to measure the existence of a statistically significant association between “offense classification” and level 300 offenses. To meet the requirements of a valid Chi-square test, the level 300 offenses were reduced to the three most common level 300 offenses prisoners were found guilty of committing for this analysis. The strength of the bivariate association between “offense classification” and “prison” was strong

(Cramer's $V = 0.413$, $p < .001$) after level 300 offenses were truncated to the three most common offenses. In comparison, the strength of the bivariate association between "offense classification" and three most common level 300 offenses was moderate, (Cramer's $V = 0.299$, $p < .001$). Thus, the results of bivariate statistical tests suggested that strength of association between "offense classification" and place (prison) was stronger than the association between "offense classification" and specific offenses.

Table 701b. Bivariate Analysis: Three Most Common Level 300 Offenses by Offense Classification

Offense	n	Offense Classification: Minor (n=11,713)	Offense Classification: Major (n=7,444)	Total: Offense Classification (n=19,157)	% of Level 300
$X^2 = 1,709.82$, 2 df, $p < .001$; Cramer's $V = .299$, $p < .001$					
304—Insolence	5,723	38.9%	61.1%	100%	26.1%
307—Unauthorized Movement	8,111	71.8%	28.2%	100%	36.9%
308—Contraband/Unauthorized Property	5,323	68.8%	31.2%	100%	24.2%
Totals:	19,157	61.1%	38.9%	100%	87.24%
Bivariate association between prison and offense classification (3 most common level 300 offenses only, n=19,157): Cramer's $V = .413$, $p < .001$					

Level 400 Offenses.

The results of the Chi-square test suggested that a statistically significant association existed between the prison in which a prisoner was subjected to the disciplinary process and whether an offense was classified as minor or major by a prison's shift supervisor ($X^2 = 3,266.11$, $p < .001$), and the strength of the association between these two variables was strong, as indicated by the Cramer's V value of 0.478 ($p < .001$).

Overall, 25.4% of level 400 offenses were classified by a prison's shift supervisor as major across the 27 prisons included in the sample. Table 702a demonstrates that there was substantial variation in the percentage of level 400 offenses classified as major between prisons.

When treated as a continuous variable, the percentage of the offenses classified as major was normally distributed (skewness = 0.866, kurtosis = -0.107) with values ranging from 2.3% (P19) to 90.9% (P16). The mean value of percentage of offenses classified as major was 30.1%, and one standard deviation from the mean was $\pm 24.6\%$, a range of 49.2%. Thus, within 18 of the 27 prisons (approximately 68%) included in the sample, 5.4% to 54.7% of level 400 offenses were classified as major.

Table 702a. Bivariate Analysis: Prison by Offense Classification for Level 400 Offenses

Prison	n	Offense Classification: Minor (n=10,933)	Offense Classification: Major (n=3,730)	Total: Offense Classification (n=14,663)	% of Sample
$X^2 = 3,266.11, 26 \text{ df}, p < .001; \text{Cramer's } V = .472, p < .001$					
P1	227	61.2%	38.8%	100%	1.5%
P2	786	89.6%	10.4%	100%	5.4%
P3	442	87.3%	12.7%	100%	3.0%
P4	354	96.6%	3.4%	100%	2.4%
P5	603	81.9%	18.1%	100%	4.1%
P6	151	72.8%	27.2%	100%	1.0%
P7	802	72.8%	27.2%	100%	5.5%
P8	989	83.0%	17.0%	100%	6.7%
P9	355	42.3%	57.7%	100%	2.4%
P10	566	58.0%	42.0%	100%	3.9%
P11	334	94.3%	5.7%	100%	2.3%
P12	537	55.1%	44.9%	100%	3.7%
P13	580	96.4%	3.6%	100%	4.0%
P14	243	74.5%	25.5%	100%	1.7%
P15	549	84.2%	15.8%	100%	3.7%
P16	55	9.1%	90.9%	100%	0.4%
P17	693	24.8%	75.2%	100%	4.7%
P18	541	81.9%	18.1%	100%	3.7%
P19	771	97.7%	2.3%	100%	5.3%
P20	598	43.5%	56.5%	100%	4.1%
P21	623	60.8%	39.2%	100%	4.2%
P22	405	91.4%	8.6%	100%	2.8%
P23	84	26.2%	73.8%	100%	0.6%
P24	391	96.7%	3.3%	100%	2.7%
P25	1623	83.2%	16.8%	100%	11.1%
P26	874	84.9%	15.1%	100%	6.0%
P27	487	38.4%	61.6%	100%	3.3%
Totals:	14,663	74.6%	25.4%	100%	100%

Of the 14,663 prisoners found guilty of a level 400 offense included in the sample, 14,628 (99.8%) were subjected to the disciplinary process in the same prison where the offense occurred. Only 35 (0.2%) of prisoners found guilty of a level 400 offense included in the sample were disciplined in a prison other than the prison in which the offense occurred. Therefore, it was determined that prisoners transferred subsequent to an ODR being issued did not create a confounding effect in the analysis reported above.

A bivariate statistical test was used to measure the existence of a statistically significant association between “offense classification” and specific level 400 offenses. The strength of the bivariate association between “offense classification” and “prison” was strong (Cramer’s V = 0.472, $p < .001$). In comparison, the strength of the bivariate association between “offense classification” and specific level 400 offenses was also strong (Cramer’s V = 0.319, $p < .001$), but noticeably weaker than the association between “offense classification” and “prison.” Thus, the results of bivariate statistical tests suggested that strength of association between “offense classification” and place (prison) was stronger than the association between “offense classification” and specific offenses.

Table 702b. Bivariate Analysis: Specific Level 400 Offenses by Offense Classification

Offense	n	Offense Classification: Minor (n=10,993)	Offense Classification: Major (n=3,730)	Total: Offense Classification (n=14,663)	% of Level 400
$X^2 = 1,495.35, 4 \text{ df}, p < .001; \text{Cramer's } V = .319, p < .001$					
402—Health, Smoking, or Safety Violations	375	54.1%	45.9%	100%	2.6%
403—Disobeying a Direct Order	5,661	58.3%	41.7%	100%	38.6%
404—Violation of Rules	6,428	86.5%	13.5%	100%	43.8%
405—Failure to Report	1,644	87.1%	12.9%	100%	11.2%
406— Trading or Trafficking	555	78.0%	22.0%	100%	3.8%
Totals:	14,663	74.6%	25.4%	100%	100%

Summary of Findings.

The results of the subanalyses concerning the association between the variables “offense classification” and “prison” suggested that how a shift supervisor exercised their discretionary authority to classify an offense as minor or major may have been largely influenced by the prison in which they operated. The strength of the bivariate association between “offense classification” and “prison” were strong for both level 300 offenses (Cramer’s $V = 0.408$, $p < .001$) and level 400 offenses (Cramer’s $V = 0.472$, $p < .001$).

There was dramatic variation observed between prisons in how shift supervisors classified similar level 300 and 400 offenses. As Tables 701a and 702a demonstrated, most level 300 and 400 offenses were classified as major at several prisons, while similar offenses were rarely classified as major at other prisons. Within the majority of the prisons (approximately 68%) included in the sample 20.0% to 67.6% of level 300 offenses were classified as major, and 5.4% to 54.7% of level 400 offenses were classified as major.

Given that the offenses subjected to this analysis were uniformly defined throughout IDOC by Department Rule 504 (DR 504), it would be highly questionable to attribute the observed variation in “offense classification” across prisons entirely to fact specific narratives underlying the offenses analyzed. The narratives, or statement of facts justifying the charging and guilty finding for each offense were not available to the researcher. Therefore, it was impossible to perform a straightforward analysis as to what impact narratives about an offense contained within an ODR had upon “offense classification.” However, if the substantial amount of the variation observed in “offense classification” was the result of the narratives contained within ODR’s, the variable “offense classification” should have had a stronger bivariate association with specific offenses rather than the “prison” variable. It did not. Bivariate statistical

tests suggested a stronger association existed between “offense classification” and place (prison) than “offense classification” and specific offenses.

The findings of this subanalysis contributed to the research objective of this work, to gauge the extent to which the prison in which a prisoner was subjected to the disciplinary process was determinative of the severity of the disciplinary sanction imposed upon them. The observed variation in “offense classification” between prisons appeared to be strongly correlated with the variance in severity of disciplinary sanctions imposed. This was expected, as “offense classification” represents both a shift supervisor’s discretionary authority to label a given offense as a serious incident and their discretion over which disciplinary committee will adjudicate an offense.

Subanalysis B: Intersectionality of Race and Variables Representing Legal Factors.

The tenets of racial conflict theory are ubiquitous in public discourse surrounding criminal justice related subject matters, and are prevalent throughout academic literature that use sociological based criminological theories in an attempt to explain deviance, punishment, and the decision-making process of key stakeholders in the criminal justice system. This work seeks neither to validate nor discredit racial conflict theory.

The results reported in Chapter Five: Results—B & C, and Chapter Six: Results—B & C suggested variables representing extralegal factors, including “race,” were at best slightly predictive, or not predictive of the severity of disciplinary sanctions imposed upon prisoners in response to level 300 and level 400 offenses relative to variables representing legal factors. Given the prominence of racial conflict theory in public and academic discourse concerning all facets of the criminal justice system, it was determined that the relationship between race and variables representing legal factors required closer examination.

The objective of this research was to gauge the extent to which the prison in which a prisoner was subjected to the disciplinary process was determinative of the severity of the disciplinary sanction imposed upon them. The analyses reported within this work were not designed to test the hypothesis that racial bias influences the prison disciplinary process. An exhaustive analysis searching for racial bias in IDOC's disciplinary process would likely require an alternative methodology than the methodology applied herein. Nonetheless, the results of the analyses reported in Chapter Five: Results—B and C and Chapter Six: Results—B and C, and the bivariate analyses reported below provided valuable insight concerning the intersectionality of race and variables representing legal factors in IDOC's disciplinary process.

The findings of the analyses of level 300 and level 400 offenses strongly suggested that the prison in which a prisoner was subjected to the disciplinary process and select variables representing legal factors were most predictive of the severity of disciplinary sanctions imposed upon prisoners. The findings of these analyses also suggested that the “race” variable was either not predictive or at best slightly predictive of severity of disciplinary sanctions imposed. However, it was possible that racial bias was masked by seemingly race neutral legal factors, such as an IDOC employee's decision to issue an Offender Disciplinary Report (ODR), a shift supervisor's decision to classify an offense as minor or major, an employee's decision as to how many offenses to list within an ODR, and the Adjustment Committee or Program Unit's decision to find a prisoner guilty of a prior offense (Logan, et al, 2017). If racial bias was masked by legal factors included in the analyses of level 300 and level 400 offenses, the results of the bivariate analyses reported below should suggest that the variable “race” was measurably associated with variables representing legal factors.

For this subanalysis, the sample of prisoners found guilty of a level 300 or level 400 offense was truncated so that the “race” variable was limited to values of Black, Hispanic, and White. Prisoners who fell within the ‘other race’ category for the variable “race” were excluded so that the assumptions required for a valid Chi-square test were met for all bivariate statistical analyses reported herein. Details concerning the bivariate statistical tests used in the analyses reported below can be found in the Methods chapter of this work beginning on page 24. A weighting procedure was not employed in this instance, as the racial composition of the sample reflected the racial composition of all prisoners who exited IDOC between SFY 2011 and 2014 as documented by the exit file dataset, and the racial composition of IDOC’s prison population as of June 30th 2014.

The first bivariate analysis examined the association between “race” and specific level 300 and level 400 offenses. Specific level 300 and 400 offenses were not included in the analyses reported in Chapters Five and Six, but an IDOC employee’s decision to issue an ODR in response to an offense is a critical juncture in the disciplinary process reflecting an employee’s use of discretionary authority.

The Chi-square test suggested that a statistically significant association existed between “race” and specific level 300 offenses ($X^2 = 542.80$, $p < .001$), but the strength of the association between these two variables was weak, as indicated by a Cramer’s V value of 0.111 ($p < .001$). Parsing out the results of the bivariate analysis of “race” and specific level 300 offenses requires an analytical approach atypical of the other bivariate analyses contained within this work, as the results within Table 703a are much nuanced. The degree to which a racial group is over or underrepresented for a given offense sometimes varies dramatically by offense, especially for specific level 300 offenses that constituted a very low percentage of level 300 offenses overall.

Three offenses, 304—Insolence, 307—Unauthorized Movement, and 308—Contraband/Unauthorized property constituted 87.2% of the level 300 offenses included in the sample. The Chi-square test suggested that a statistically significant association existed between “race” and these three most common level 300 offenses ($X^2 = 437.11$, $p < .001$), but the strength of the association between these variables was weak, as indicated by a Cramer’s V value of 0.107 ($p < .001$). There was scant racial disparity observed overall when focusing on these three offenses, with Blacks being underrepresented by 0.3%, Hispanics being overrepresented by 0.5%, and Whites being underrepresented by 0.1% relative to their share of the sample population. The results of a bivariate analysis of “race” and the three most common level 300 offenses listed above were similar to the results of the bivariate analysis of race and all level 300 offenses.

Table 703a. Bivariate Analysis: Specific Level 300 Offenses by Race

Offense Description	n	Black (n=12,394)	Hispanic (n=2,848)	White (n=6,609)	% of Sample by Offense
$X^2 = 542.80$, 18 df, $p < .001$; Cramer’s V = .111, $p < .001$					
302—Gambling	189	47.1%	9.5%	43.4%	0.9%
303—Giving False Information To An Employee	924	65.0%	7.8%	27.2%	4.2%
304—Insolence	5,705	64.5%	8.0%	27.5%	26.1%
305—Theft	1,193	54.1%	15.0%	30.9%	5.5%
306—Transfer Of Funds	72	34.7%	9.7%	55.6%	0.3%
307—Unauthorized Movement	8,069	56.9%	12.8%	30.2%	36.9%
308—Contraband or Unauthorized Property	5,288	47.8%	19.6%	32.6%	24.2%
309—Petitions, Postings, and Business Ventures	16	18.8%	0.0%	81.3%	0.1%
310—Abuse Of Privileges	392	58.7%	11.0%	30.4%	1.8%
311—Failure To Submit To Medical Or Forensic Test	3	33.3%	0.0%	66.7%	0.0%
Totals	21,851	56.7%	13.0%	30.2%	100%
All percentages by race equal 100% for each offense					

The Chi-square test suggested that a statistically significant association existed between “race” and specific level 400 offenses ($X^2 = 72.27$, $p < .001$), but the strength of the association between these two variables was weak, as indicated by a Cramer’s V value of 0.050 ($p < .001$).

Table 703b. Bivariate Analysis: Specific Level 400 Offenses by Race

Offense Description	n	Black (n=8,334)	Hispanic (n=1,848)	White (n= 4,408)	% of Sample by Offense
$X^2 = 72.27$, 18 df, $p < .001$; Cramer’s V = .050, $p < .001$					
402—Health, Smoking, or Safety Violations	373	52.0%	13.7%	34.3%	2.6%
403—Disobeying a Direct Order	5,639	60.8%	10.9%	28.3%	38.6%
404—Violation of Rules	6,389	54.9%	13.2%	31.9%	43.8%
405—Failure to Report	1,637	56.5%	15.3%	28.2%	11.2%
406—Trading or Trafficking	552	50.5%	15.4%	34.1%	3.8%
Totals	14,590	57.1%	12.7%	30.2%	100%
All percentages by race equal 100% for each offense					

The second bivariate analysis examined the association between “race” and “offense classification,” another crucial stage in the IDOC disciplinary process at which the discretionary authority of prison officials was exercised. Also, “offense classification” was most predictive of the variables representing a legal factor included in the analyses of disciplinary sanctions imposed in response to level 300 and level 400 offenses.

The Chi-square test suggested that a statistically significant association existed between the race of prisoners found guilty of level 300 offenses and the variable “offense classification” ($X^2 = 96.97$, $p < .001$), but the strength of the association between these variables was extremely weak, as indicated by a Cramer’s V value of 0.067 ($p < .001$).

Relative to their share of the sample of prisoners found guilty of a level 300 offense, Blacks were overrepresented in the percentage of offenses classified as major by 3.9% and underrepresented in the percentage of offenses classified as minor by 2.7%. In contrast, Whites were underrepresented relative to their share of sample population in the percentage of offenses

classified as major by 2.4% and overrepresented in the percentage of offenses classified as minor by 2.2%. The results for Hispanic were similar to Whites, in that they were underrepresented in the percentage of offenses classified as major by 1.4% and overrepresented in the percentage of offenses classified as minor by 1.1%.

Table 704a. Bivariate Analysis: Offense Classification by Race for Level 300 Offenses

Offense Classification	Black (n=12,394)	Hispanic (n=2,848)	White (n= 6,609)	Total (n=21,851)
$X^2 = 96.97, 2 \text{ df}, p < .001; \text{Cramer's } V = .067, p < .001$				
Minor	54.0%	14.1%	32.0%	100%
Major	60.6%	11.6%	27.8%	100%
Totals	56.7%	13.0%	30.2%	100%

The Chi-square test suggested the absence of a statistically significant relationship between the race of prisoners found guilty of a level 400 offense and “offense classification.”

Table 704b. Bivariate Analysis: Offense Classification by Race for Level 400 Offenses

Offense Classification	Black (n=8,334)	Hispanic (n=1,848)	White (n= 4,408)	Total (n=14,590)
$X^2 = 4.57, 2 \text{ df}, p = .102; \text{Cramer's } V = .018, p = .102$				
Minor	56.6%	12.8%	30.6%	100%
Major	58.6%	12.2%	29.1%	100%
Totals	57.1%	12.7%	30.2%	100%

The third bivariate analysis examined the association between the “race” variable and the number of offenses listed within an ODR a prisoner was found guilty of committing within the samples of level 300 and 400 offenses. The variable “number of offenses this ODR” represented an exercises of discretionary authority by employees who issued ODR’s in addition to the decision to issue an ODR, the Adjustment Committees and Program Units that decided how many offenses listed within an ODR a prisoner was guilty of, and the Warden who signed off on the final disposition of the ODR.

The Chi-square test suggested that a statistically significant association existed between the race of prisoners found guilty of a level 300 offense and the variable “number of offenses this

ODR” ($X^2 = 132.04$, $p < .001$), but the strength of the association between these variables was weak, as indicated by a Cramer’s V value of 0.078 ($p < .001$).

Relative to their share of the population of prisoners found guilty of a level 300 offense, Blacks were overrepresented in the percentage of prisoners whose ODR’s contained more than one offense by 3.9% and underrepresented in the percentage of ODR’s containing one offense by 3.4%. In contrast, Whites were underrepresented relative to their share of sample population in the percentage of ODR’s containing more than one offense by 1.9% and overrepresented in the percentage of ODR’s containing one offense by 1.8%. The results for Hispanics were identical to Whites, in that they were underrepresented in the percentage of ODR’s containing more than one offense by 1.9% and overrepresented in the percentage of ODR’s containing one offense by 1.8%.

Table 705a. Bivariate Analysis: Number of Offenses This ODR by Race for Level 300 Offenses

Number of offenses this ODR	Black (n=12,394)	Hispanic (n=2,848)	White (n= 6,609)	Total (n=21,851)
$X^2 = 132.04$, 2 df, $p < .001$; Cramer’s V = .078, $p < .001$				
One	53.3%	14.8%	32.0%	100%
More than one	60.6%	11.1%	28.3%	100%
Totals	56.7%	13.0%	30.2%	100%

The Chi-square test suggested the absence of a statistically significant association between the race of prisoners found guilty of a level 400 offense and the variable “number of offenses this ODR.”

Table 705b. Bivariate Analysis: Number of Offenses This ODR by Race for Level 400 Offenses

Number of offenses this ODR	Black (n=8,334)	Hispanic (n=1,848)	White (n= 4,408)	Total (n=14,590)
$X^2 = 3.41$, 2 df, $p = .182$; Cramer’s V = .015, $p = .182$				
One	56.8%	12.7%	30.5%	100%
More than one	58.7%	12.4%	28.9%	100%
Totals	57.1%	12.7%	30.2%	100%

The final bivariate analysis examined the association between the race of prisoners found guilty of a level 300 or level 400 offense and the variable “found guilty of any prior offense (current incarceration).” The variable “found guilty of any prior offense” represented an exercise of discretionary authority by Adjustment Committees and Program Units that decided whether a prisoner was guilty of prior offense.

The Chi-square test suggested that a statistically significant association existed between the race of prisoners found guilty of a level 300 offense and the variable “found guilty of any prior offense (current incarceration)” ($X^2 = 93.58$, $p < .001$), but the strength of the association between these variables was extremely weak, as indicated by a Cramer’s V value of 0.065 ($p < .001$).

Relative to their share of the population of prisoners found guilty of a level 300 offense, Blacks were overrepresented in the percentage of prisoners found guilty of any prior offense (current incarceration) by 1.9% and underrepresented in the percentage not found guilty of any prior offense (current incarceration) by 5.2%. In contrast, Whites were underrepresented relative to their share of sample population in the percentage of not found guilty of any prior offense (current incarceration) by 4.6% and overrepresented in the percentage of found guilty of any prior offense (current incarceration) by 1.8%. The results for Hispanics were similar to Whites, in that they were underrepresented in the percentage of not found guilty of any prior offense (current incarceration) by 0.7% and overrepresented in the percentage of found guilty of any prior offense (current incarceration) by 0.8%.

Table 706a. Bivariate Analyses: Found Guilty of Any Prior Offense (current incarceration) by Race for Level 300 Offenses

Found guilty of any prior offense (current incarceration)	Black (n=12,394)	Hispanic (n=2,848)	White (n= 6,609)	Total (n=21,851)
$X^2 = 93.58, 2 \text{ df}, p < .001; \text{Cramer's } V = .065, p < .001$				
No	51.5%	13.7%	34.8%	100%
Yes	58.6%	12.8%	28.6%	100%
Totals	56.7%	13.0%	30.2%	100%

The Chi-square test suggested that a statistically significant association existed between the race of prisoners found guilty of a level 400 offense and the variable found guilty of any prior offense (current incarceration) ($X^2 = 35.68, p < .001$), but the strength of the association between these variables was extremely weak, as indicated by a Cramer's V value of 0.048 ($p < .001$).

Relative to their share of the population of prisoners found guilty of a level 400 offense, Blacks were overrepresented in the percentage of prisoners found guilty of any prior offense (current incarceration) by 1.6% and underrepresented in the percentage not found guilty of any prior offense (current incarceration) by 3.7%. In contrast, Whites were underrepresented relative to their share of sample population in the percentage of not found guilty of any prior offense (current incarceration) by 2.6% and overrepresented in the percentage of found guilty of any prior offense (current incarceration) by 1.1%. The results for Hispanics were similar to Whites, in that they were underrepresented in the percentage of not found guilty of any prior offense (current incarceration) by 1.1% and overrepresented in the percentage of found guilty of any prior offense (current incarceration) by 0.5%.

Table 706b. Bivariate Analyses: Found Guilty of Any Prior Offense (current incarceration) by Race for Level 400 Offenses

Found guilty of any prior offense (current incarceration)	Black (n=8,334)	Hispanic (n=1,848)	White (n= 4,408)	Total (n=14,590)
$X^2 = 35.68, 2 \text{ df}, p < .001; \text{Cramer's } V = .049, p < .001$				
No	53.4%	13.8%	32.8%	100%
Yes	58.7%	12.2%	29.1%	100%
Totals	57.1%	12.7%	30.2%	100%

To summarize, the results of the subanalysis on the intersectionality of race and variables representing legal factors suggested that racial bias was not masked by legal factors in the IDOC disciplinary process. There was either a very weak or no statistically significant association between the variable “race” and the variables representing legal factors reflecting exercises of the discretionary authority by IDOC staff, “offense classification,” “number of offenses this ODR,” and “found guilty of any prior offense (current incarceration).”

The Cramer’s V values well below 0.1 reported in the bivariate analyses above suggest that the existence of a statistically significant association between variables as determined by the Chi-square test for several of the analyses may have been attributable to a large sample size more so than the magnitude of difference between expected counts and observed counts reported in Tables 703b through 706b.

CHAPTER EIGHT

ISSUES AND LIMITATIONS

Use of the Exit File Dataset.

As detailed within the Chapter Three: Data and Sample, the sample subjected to the analyses within this work consisted of prisoners who exited IDOC between July 1st 2010 and June 30th 2014. This may have created a couple of issues and limitations with this work.

One, prisoners serving relatively long sentences and life sentences may have been underrepresented within the exit file dataset when compared to IDOC's static population of SFY 2011 to 2014. Of the prisoners contained within the exit file dataset (n = 91,846), only 3,948 (4.2%) were subject to Truth In Sentencing (T.I.S.), this figure includes 175 (0.2%) prisoners who served the entirety of their life sentence. In contrast, of the prisoners who made up IDOC's static population as of June 30th 2014 (n = 48,814), 13,494 (27.6%) were subject to T.I.S, and 1,257 (2.6%) were serving a life sentence without the possibility of parole. Without knowing the length of the actual sentence being served by prisoners who made up IDOC's static population during SFY 2011 to 2014, it is impossible to know for certain if or to what degree the length of actual sentence served by the sample was representative of the length of sentences served by the static population.

Two, prisoners contained within the exit file dataset who served long prison sentences and progressed through their term of incarceration without major incident would have had their security classification lowered by IDOC, resulting in a transfer from a maximum-security prison to a medium-security, and maybe a minimum-security prison as a matter of course. Thus, it was

possible the prisoners who were released from a maximum-security prison included in the sample were considered by prison officials to be amongst the most problematic. Also, this very likely resulted an unnaturally low count of prisoners subjected to the prison disciplinary process in IDOC's maximum-security prisons. This was problematic, as maximum-security prisons are typically associated with higher rates of offenses, and by extension, a larger number of prisoners subjected to the prison disciplinary process (Steiner & Wooldredge, 2009, citing Huebner, 2003; Jiang & Fisher-Giorlando, 2002; Jiang & Winfree, 2006; McCorkle et al., 1995).

Additionally, as the exit file dataset was limited to prisoners who exited IDOC, the extent to which the findings of this research may be externalized to prisoners imprisoned outside of Illinois is unknown.

Independent Variables Not Included in the Analyses.

Mental health status was not included as a variable representing an extralegal factor in the analyses. This was a limitation because the empirical literature suggests that mental health status is predictive of prisoner misconduct (Steiner & Wooldredge, 2009) and disciplinary sanctions imposed upon prisoners (Steiner & Cain, 2017). Additionally, a prisoner's mental health status was related to two of the three focal concerns listed within the focal concerns perspective literature regarding the prison disciplinary process, blameworthiness of prisoners and ramifications of disciplinary sanctions upon both prisoners and the prison (Butler & Steiner, 2017; Logan, et al, 2017; Steiner & Cain, 2017).

It was determined that prisoner's mental health status as indicated by the exit file dataset was not a reliable measure of a prisoner's mental health status. In early 2014, IDOC switched from a self-report based mental health screening instrument to a more reliable instrument that utilized observations made by trained mental health staff (Troyer, 2014). The switch in mental

health assessment instruments was in large part prompted by litigation regarding mental health care provided by IDOC, *Rasho et al. v. Walker et al.*, 07-CV-1298 (C.D. Ill.).

Including an independent variable based on information that was the subject of litigation during SFY 2011 to 2014 in the analyses would have been improper. Throughout the pre-settlement stages of the *Rasho* litigation, plaintiffs alleged that IDOC's mental health screening procedures were woefully inadequate. IDOC effectively conceded to this allegation by agreeing to make substantial changes to the mental health screening process in a settlement agreement formalized by the *Rasho* Court in 2016. Additionally, the *Rasho* settlement required IDOC to incorporate input from mental health professionals into the disciplinary process after prisoners identified as Seriously Mentally Ill (SMI) were issued an Offender Disciplinary Report (ODR) (Troyer, 2016). Thus, IDOC also effectively acquiesced to the allegation that when a SMI prisoner was subjected to the IDOC disciplinary process, mental health status was not being considered to the extent it should have been concerning the prisoner's blameworthiness and the ramifications of disciplinary sanctions imposed upon them prior to 2016.

Education level was not included as a variable representing an extralegal factor in the analyses. Education was included in several studies testing hypotheses based upon the focal concerns perspective as applied to the prison disciplinary process. Within this literature, it was posited that prison disciplinary committees may consider a prisoner who had conformed to the conventional social norm of attaining a high school diploma or college degree as being both less blameworthy for an offense and less of a threat to the prison community (Butler & Steiner, 2017; Logan, et al, 2017; Steiner & Cain, 2017). Thus, not having a variable measuring a prisoner's education level may have been a limitation.

Education level was not included as a variable in the analyses because it was unknown whether disciplinary committees had access to, or considered this information when a prisoner was subjected to the disciplinary process.

There were no variables representing family connectedness, an extralegal factor, included in the analyses. Variables attempting to measure family connectedness were also included in several studies testing hypotheses based upon the focal concerns perspective as applied to the prison disciplinary process. Within the focal concerns perspective literature, it was posited that prison disciplinary committees may consider a prisoner who had conformed to the conventional social norm of being involved with family as being less blameworthy for an offense and less of a threat to the prison community (Butler & Steiner, 2017; Logan, et al, 2017; Steiner & Cain, 2017). Also, it was suggested that prison disciplinary committees may refrain from imposing severe sanctions, such as revocation of good time upon prisoners who have demonstrated family connectedness, as this sanction may have an adverse impact upon the bonds shared by prisoners and their families (Steiner & Cain, 2017).

There were no variables that reliably measured a prisoner's connectedness with family included in exit file dataset. Variables adequately measuring a prisoner's connectedness with family may have included indicators of whether a prisoner received visits or mail from family, and if so, how often, and whether a prisoner talked on the phone with family, and if so, how often. IDOC tracked this information, but it was not included in the exit file data set. Such information is sometimes known at the prison-level, but whether this information was available to, or considered by disciplinary committees when a prisoner was subjected to the disciplinary process was uncertain.

Missing Information: Level 400 Offenses—Oral Reprimands and Facts Underlying the Offenses Included in ODR’s Utilized for the Analyses.

If an IDOC employee observed a prisoner committing a level 400 offense, the employee had the discretion to orally reprimand a prisoner rather than issue an ODR (IDOC, 2017). Oral reprimands were not tracked by IDOC. This potentially created two issues and limitations with this research. One, if a sizable proportion of level 400 offenses resulted in oral reprimands, the analyses of level 400 offenses reported in this work was likely biased by an unmeasurable, confounding factor. Two, as oral reprimands were not tracked, there was no possible way to analyze how the discretionary authority of IDOC employees was exercised where oral reprimands were concerned.

The facts underlying each offense included in the analyses were not available to the researcher. Thus, there was no way to accurately measure the extent to which the facts underlying an offense influenced the independent and dependent variables utilized throughout the analyses reported herein. Also, lack of information concerning the facts relative to each offense precluded the researcher from decisively concluding whether facts underlying an offense were more or less likely to influence the disciplinary process for one offense level when compared to another.

CHAPTER NINE

DISCUSSION

The primary objective of this research was to gauge the extent to which the prison in which a prisoner was subjected to the disciplinary process was determinative of the severity of disciplinary sanctions imposed upon prisoners. It was hypothesized that there will be substantial variance observed between prisons in the severity of disciplinary sanctions imposed upon prisoners found guilty of similar offenses. The theoretical basis of the hypothesis was derived from the focal concerns perspective literature. The three key findings of the analyses reported throughout this work and methodological approach to these analyses contributed to the existing body of focal concerns perspective literature as applied to the prison disciplinary process.

Based on research findings reported within existing focal concerns perspective literature applied to the prison disciplinary process, it was expected that the prison staff who effectuated the disciplinary process embedded within the 27 IDOC prisons included in the sample would reduce the uncertainty inherent in their decisions regarding culpability and impact of disciplinary sanctions by developing patterned responses to offenses. These patterned responses would be mostly be guided by three concerns of prison officials: blameworthiness of the prisoner, preservation of the safety and security of the prison community, and the impact of disciplinary sanctions upon both prisoners and the prison in which the prison officials operated. It was also expected that the patterned responses to offenses developed by the IDOC staff who effectuated the disciplinary process within each prison included in the analyses were influenced by the bureaucratic and cultural norms of the prison they were embedded in, and that this would be

reflected by the results of the analyses. Finally, it was expected that the patterned responses to offenses applied by IDOC staff were influenced by legal factors (offense characteristics and a prisoner's disciplinary history) and extralegal factors (characteristics of a prisoner, such as demographic traits) (Butler & Steiner, 2017; Logan, et al., 2017; Steiner & Cain, 2017).

The results of the analyses reported throughout this work supported the hypothesis. Substantial variance was observed between prisons in severity of disciplinary sanctions imposed upon prisoners after controlling for the influence of variables representing extralegal and legal factors. Also, wide disparities were observed between prisons in how the discretionary authority of IDOC staff involved in the disciplinary process was effectuated at two key points of the process, how offenses were classified by shift supervisors and severity of sanctions imposed upon prisoners by prison disciplinary committees. Consistent with the findings of prior research concerning the prison disciplinary process, the results of the analyses reported herein suggested that variables representing legal factors were predictive of the severity of disciplinary sanctions imposed upon prisoners. In comparison to legal factors, variables representing extralegal factors appeared to have little, if any influence upon severity of disciplinary sanctions (Butler & Steiner, 2017; Logan, et al., 2017; Steiner & Cain, 2017).

There were three key findings of this research. One, a relatively high amount of variance was observed between IDOC prisons in the severity of disciplinary sanctions imposed upon the prisoners included in the sample who were found guilty of similar offenses after accounting for the influence of other variables. Two, the variable "offense classification (minor/major)," a legal factor, was highly predictive of the severity of disciplinary sanctions imposed relative to other variables. Also, how similar offenses were classified substantially varied between the IDOC prisons represented in the sample. Three, not only were variables representing extralegal factors

not strongly associated with the severity of disciplinary sanctions imposed after controlling for the effect of legal factors, the results of the analyses suggested that racial bias was not masked by legal factors in the IDOC disciplinary process.

The results reported in Chapter Five and Six provided strong support for the hypothesis that substantial variance will be observed between prisons in the severity of disciplinary sanctions imposed upon similarly situated prisoners who were found guilty of similar offenses. That the reported results strongly supported the hypothesis solidified a central tenet of the focal concern perspective literature, patterned responses to offenses are likely to be shaped by shared beliefs as to what constitutes an appropriate disciplinary sanction for a given offense amongst the prison staff who operate within the same prison.

The variance observed at the group-level after accounting for individual-level effects upon the dependent variables in the multi-level logistic regression models indicated that the prison in which a prisoner was subjected to the disciplinary process was determinative of the severity of disciplinary sanctions imposed. For level 300 offenses, 15.9% of variance in the outcome of the dependent variable “verbal warning (no = 0/yes = 1)” existed at the group-level (prisons) after accounting for the influence of individual-level effects (characteristics of prisoners and the offenses they were found guilty of committing). The results were more pronounced in the multi-level analysis of level 300 offenses where “loss or restriction of privileges only (no = 0/yes = 1)” was used as the dependent variable; 36% of the variance in the outcome of the dependent variable existed at the group-level (prisons) after accounting for the influence of individual-level effects. Throughout the analyses, “loss or restriction of privileges only = yes (coded as 1)” meant that a prisoner received a less severe disciplinary sanction in

comparison to prisoners who received another sanction (“loss or restriction of privileges only = no (coded as 0)”).

The findings of the multi-level analyses of level 400 offenses mirrored the findings specific to level 300 offenses. The model in which “verbal warning (no = 0/yes = 1)” was used as a dependent variable in the analyses of level 400 offenses indicated that 13.1% of variance in the outcome of the dependent variable existed at the group-level (prisons) after accounting for the influence of individual-level effects. The model in which “loss or restriction of privileges only (no = 0/yes = 1)” was used as the dependent variable indicated that 30.3% of variance in the outcome of the dependent variable existed at the group-level (prisons) after accounting for the influence of individual-level effects.

The observed variance at the group-level of the multi-level statistical analyses of level 300 and 400 offenses was striking when juxtaposed with the findings of other research that used multi-level statistical models to examine the prison disciplinary process. For example, Butler and Steiner found that 8% of variance existed at the group-level (prison) when examining the use of disciplinary segregation (2017). However, the difference in the variance observed at the group-level in this work versus the work of Butler & Steiner (2017) likely resulted from the use of dramatically different dependent variables in the respective analyses. Nonetheless, 30% and 36% of variance in the outcome of dependent variables existing at the group-level (prisons) observed in two of the multi-level models strongly suggested that how the IDOC disciplinary process was effectuated by prison staff greatly varied between prisons.

The results of the bivariate analyses and single-level logistic regression models also supported the hypothesis that the prison in which a prisoner was subjected to the disciplinary process was determinative of severity of disciplinary sanctions. Bivariate statistical tests

indicated the existence of a strong, statistically significant association between the “prison” variable and the dependent variables in the four analyses of level 300 and 400 offenses. The results of the single-level logistic regression models provided additional support for the hypothesis in two ways. One, within the models in which “prison” was included as a variable, “prison” was highly predictive of the dependent variable after controlling for the influence of other variables as indicated by the Wald statistic. Two, several single-level logistic regression models were created for each of the four analyses. In all analyses, models including “prison” as an independent variable had more predictive validity in comparison to models in which “prison” was not included as an independent variable. Additionally, the pseudo R squared statistics associated with the models with “prison” included as an independent variable were considerably higher than the models that did not include “prison” as an independent variable. This indicated that the models in which “prison” was included as a variable explained a greater proportion of the variance of the latent variable in comparison to the models that did not include “prison” as a variable.

Overall, the results of the analyses provided strong support for the hypothesis that substantial variance will be observed between prisons in the severity of disciplinary sanctions imposed upon similarly situated prisoners found guilty of similar offenses. The analyses did not, however, provide insight as to why there was substantial variance observed. Because official IDOC disciplinary policy was uniform throughout the IDOC facilities included in the analyses, the observed variance in severity of disciplinary sanctions imposed between prisons should not be attributable to official policy differences existing between prisons.

Thus, additional research is required to answer the question of why prisons are determinative of severity of disciplinary sanctions to the extent that they are. Qualitative research

should be undertaken to assess the viewpoints of prison staff who effectuate the prison disciplinary process regarding blameworthiness of prisoners, the level of severity of disciplinary sanctions required to preserve the safety of their prison, and their level of concern as to the costs of disciplinary sanctions borne by prisoners and the prison. Such research may provide insight as to why there was substantial variance observed between prisons in this instance, thereby furthering focal concerns perspective literature.

The second key finding of this research was the discovery of the prominent role a prison's shift supervisor played in the IDOC disciplinary process as reflected by the "offense classification" variable. Every Offender Disciplinary Report (ODR) issued by an IDOC employee included in the analyses was reviewed, and then classified as a minor or major offense by a shift supervisor. For all level 300 and 400 offenses, shift supervisors exercised discretionary authority to classify an offense as minor or major based on their perception of the seriousness of the offense (IDOC, 2017).

At this stage of the disciplinary process, the shift supervisor could have influenced the severity of the disciplinary sanction imposed upon a prisoner in two ways. One, by classifying the offense as major, the shift supervisor labeled the level 300 or 400 offense as being a relatively serious offense. Two, a shift supervisor determined whether a prison's Adjustment Committee adjudicated the offense by classifying a level 300 or 400 offense as major, whereas a similar offense classified as minor was adjudicated by a prison's Program Unit. A prison's Adjustment Committee could have imposed any sanction allowed by DR 504, while a Program Unit could have imposed any disciplinary sanction allowed by DR 504 other than disciplinary segregation or loss of good time (IDOC, 2017). The potential impact of offense classification upon the analyses was addressed on page 47 of the Methods chapter.

“Offense classification” was used as an independent variable representing a legal factor throughout the analyses. In all bivariate analyses, single-level logistic regression, and multi-level logistic regression models used throughout this work, the variable “offense classification (minor/major)” was highly predictive of the outcome of dependent variables relative to other variables.

According to the results of the multi-level statistical models, a prisoner found guilty of a level 300 offense classified by a shift supervisor as major, was 78.3% less likely to receive a verbal warning as a sanction than a prisoner found guilty of a level 300 offense classified as minor after controlling for the influence of other variables. Of the prisoners who did not receive a verbal warning, a prisoner found guilty of a level 300 offense classified as major was 89% less likely to receive loss or restriction of privileges only as sanction than prisoners found guilty of a level 300 offense classified as minor.

A prisoner found guilty of a level 400 offense classified by a shift supervisor as major was 81.3% less likely to receive a verbal warning as a sanction than a prisoner found guilty of a level 400 offense classified as minor after controlling for the influence of other variables. Of the prisoners who did not receive a verbal warning, a prisoner found guilty of a level 400 offense classified as major was 95.7% less likely to receive loss or restriction of privileges only as sanction than prisoners found guilty of a level 400 offense classified as minor.

After controlling for the influence of other variables, the odds of a prisoner found guilty of a level 300 or 400 offense that was classified as major receiving a verbal warning or a loss or restriction of privileges only were dramatically reduced. Thus, the findings of the analyses suggested that prisoners found guilty of an offense classified as major were effectively precluded from receiving one of the two least severe disciplinary sanctions well before their offense was

adjudicated by an Adjustment Committee or Program Unit as a result of an exercise of discretionary authority by a prison's shift supervisor.

The relationship between the variable "offense classification" and the dependent variables was analyzed in Chapters Five and Six. To better understand this critical independent variable, subanalyses were conducted on the "offense classification" variable's association with other variables, the results of which were reported in Chapter Seven. These results of these analyses suggested that "offense classification" was more of a function of place (prison) than offense. The strength of association between "offense classification" and "prison," as indicated by the Cramer's V statistic, was noticeably stronger than the strength of association between "offense classification" and specific level 300 and 400 offenses. Additionally, a substantial amount of variation was observed across prisons in the percentage of level 300 and 400 offenses classified as major.

The findings of the analyses related to the "offense classification" variable reported in Chapters Five, Six, and Seven further supported the tenet of the focal concern perspective literature, patterned responses to offenses are likely to be shaped by shared beliefs as to what constitutes an appropriate disciplinary sanction for a given offense amongst prison staff who operate within the same prison.

In summary, the findings of this research strongly suggested that how a prison's shift supervisor classified an offense (minor or major) was very determinative of the severity of the disciplinary sanction a prisoner received after being found guilty of a level 300 or 400 offense. The findings also suggested that the patterned responses to offenses formed by IDOC staff involved in the disciplinary process were strongly influenced by the cultural norms and bureaucratic structure unique to each prison. To better test this premise, a large-scale qualitative

research project is required. Shift supervisors should be interviewed in an effort to investigate the factors that drive their exercise of discretionary authority when classifying similar offenses as minor or major.

The third key finding of this research was that variables representing extralegal factors were not predictive of the dependent variables after accounting for the effect of the primary independent variable (prison) and variables representing legal factors. Variables representing extralegal factors measured a prisoner's demographic characteristics, in addition to severity of criminal offense and gang membership status. The results of the bivariate statistical tests suggested that either no statistically significant association existed between extralegal factors and the dependent variables, or when a statistically significant association between these variables existed, the strength of the association was extremely weak.

Relative to variables representing legal factors, variables representing extralegal factors were barely, if at all, predictive of the dependent variables in the single-level and multi-level statistical models. What may surprise most is that these analyses indicated that racial identity was not determinative of the outcome of the dependent variables. Additionally, the subanalyses reported in Chapter Seven suggested that seemingly race neutral variables representing legal factors, such as "offense classification" and offense history, did not mask racial bias. In summary, the results of this research indicated that little to no racial bias was found in the outcomes of the dependent variables, or the legal factors considered by IDOC staff who effectuate the disciplinary process.

The methodology employed in this work was not expressly constructed to test for racial bias in the IDOC disciplinary process. However, the results of the analyses indicated that the severity of disciplinary sanctions imposed upon the prisoners included in the sample were evenly

distributed by race. Further research should be conducted to probe for racial bias in the IDOC's disciplinary process and outcomes of the disciplinary process.

To test the hypothesis, analyses were conducted on the disciplinary sanctions most commonly imposed in response to the most common offenses the prisoners who exited IDOC during SFY 2011 to 2014 were found guilty of committing. This methodological approach furthered the existing literature concerning the prison disciplinary process in two ways.

First, the majority (85.9%) of offenses prisoners included in the sample were found guilty of committing were level 300 and 400 offenses, which are considered by prison officials to be low-level, i.e. less serious offenses. It was determined that using low-level offenses as the basis of the analyses was a sound methodological approach to probe the existence of patterned responses to offenses influenced by organizational and culture factors unique to each prison. Not only were low-level offenses most representative of the offenses adjudicated by prison disciplinary committees, the detailed facts, i.e. the narrative describing these offenses contained within every ODR were less likely to be a prominent factor influencing disciplinary outcomes in comparison to more serious offenses such as assault of staff or another prisoner. Thus, the possibility of increased likelihood of uniformity of facts underlying the offenses analyzed may have mitigated the impact of a potentially confounding element that could not be accounted for in the analyses, the exact narrative particular to an offense.

Second, the majority of disciplinary sanctions imposed upon prisoners in IDOC were relatively minor sanctions levied in response to relatively low-level offenses. Because the relatively minor sanctions of verbal warnings and loss or restriction of privileges were the disciplinary sanctions most frequently imposed upon prisoners throughout the 27 IDOC prisons represented in the analyses, these sanctions served as ideal dependent variables to test the

hypothesis and tenets of focal concerns theory. Additionally, no recent literature was found that analyzed factors influencing the most commonly imposed disciplinary sanctions utilized by prison officials. Rather, the existing literature primarily focused upon prison officials' use of the most severe disciplinary sanctions, such as segregation or loss of good time, sanctions that are infrequently imposed in comparison to less severe sanctions such as verbal warnings and loss of privileges (Butler & Steiner, 2017; Flanagan, 1982; Logan, et al, 2017; Steiner & Cain, 2017; also see Tables 405a and 405b located on page 36 within the Methods chapter of this work).

As the research objective was to gauge the extent to which the prison in which a prisoner was subjected to the disciplinary process was determinative of the severity of disciplinary sanctions imposed upon a prisoner, it made sense to use dependent variables that were in essence the least common denominator of disciplinary sanctions imposed throughout IDOC. This better allowed for the analyses to accurately measure variance in the severity of disciplinary sanctions between prisons because the sanctions verbal warning and loss or restriction of privileges were the sanctions most frequently imposed across the 27 prisons represented in the final sample. Thus, this research added to the existing literature related to the prison disciplinary process by measuring the influence of the prison in which a prisoner was subjected to the prison disciplinary process upon whether a prisoner received the most frequently imposed disciplinary sanctions after controlling for the influence of other variables.

Further research concerning the IDOC disciplinary process should include a variable representing a prisoner's mental health status. Current IDOC data reflecting the mental health status of prisoners should be reliable enough for use in contemporaneous research similar to what was conducted in this instance. Gender should be also be accounted for in contemporaneous research similar to what was conducted in this instance. As noted in the Methods chapter, a

group-level variable in a multi-level statistical model would be the proper way to measure the effect of gender on severity of disciplinary sanctions imposed between prisons.

CHAPTER TEN

CONCLUSION

The research findings contained within this work strongly suggested that the severity of a disciplinary sanction imposed upon a prisoner in response to a low-level offense is in large part dictated by location, the prison in which the prisoner was subjected to the prison disciplinary process. The results of the analyses reported herein indicated that a relatively high amount of variance existed between IDOC prisons in the severity of disciplinary sanctions imposed upon similar prisoners who were found guilty of committing similar low-level offenses. Also, the degree to which similar level 300 and 400 offenses were classified differently by shift supervisors across prisons was striking.

It should not be assumed that the wide discrepancy in severity of disciplinary sanctions imposed between prisons in response to low-level offenses or the wide discrepancy in the number of offenses classified as major across prisons was the result of IDOC prison staff being unnecessarily harsh or too lax at certain prisons. There may be valid reasons as to why wide discrepancies existed between prisons in how the IDOC disciplinary process was effectuated by staff and administrators. If there are valid, plausible explanations for why prisoners at certain prisons were likely to be disciplined more or less harshly for similar low-level offenses depending upon the prisons they were housed at, however, IDOC should make these reasons known.

A transparent, consistent disciplinary process is more likely to be viewed as legitimate by prisoners, which will likely result in better outcomes for prison staff and prisoners. As Steiner &

Cain opined, it is important that “laws are applied fairly and equitably so as not to undermine the legitimacy of the justice system” (2017, p. 94). The same is true of the prison justice system, the disciplinary process.

It is unlikely that a prisoner who was transferred from prison P2, where 10.4% of level 400 offenses were classified as major, to prison P17, where 75.2% of the same offenses were classified as major, viewed the prison disciplinary process as legitimate following their transfer. Rather, from the perspective of this prisoner, it probably seemed as if IDOC’s disciplinary practices were arbitrary and unfair. As prisoners have little to no control over the prison they are housed in, the prisoner was more likely to associate the severity of disciplinary sanctions being imposed in response to low-level offenses with luck of the draw rather than a fair, fact-based process uniformly applied throughout IDOC.

Reiterating from the Discussion Chapter, there were three key findings derived from the analyses reported within this work. One, a relatively high amount of variance was observed between IDOC prisons in the severity of disciplinary sanctions imposed upon the prisoners included in the sample found guilty of similar offenses after accounting for the influence of other variables. Two, the variable “offense classification (minor/major),” a legal factor, was highly predictive of the severity of disciplinary sanctions imposed relative to other variables. Also, how similar offenses were classified substantially varied between the IDOC prisons represented in the sample. Three, not only were variables representing extralegal factors not salient predictors of the severity of disciplinary sanctions imposed after controlling for the effect of legal factors, the results of the analyses suggested that racial bias was not masked by legal factors in the IDOC disciplinary process.

The following recommendation is based upon the key findings of this research.

IDOC should increase its partnerships with entities capable of conducting research concerning the disciplinary process and disciplinary sanctions. This may be accomplished by IDOC allowing independent entities to access the department's most recent disciplinary datasets after these datasets have been deidentified. Fulfilling this recommendation will allow for exhaustive data exploration of IDOC disciplinary practices by objective third parties. The findings of such research should be made readily available to the public, specifically key stakeholders.

Increased transparency will benefit IDOC in several ways. Many people have strong feelings about IDOC's disciplinary practices, but few of them have facts about IDOC disciplinary practices. Feelings are not facts, but feelings may lead to policy changes being imposed upon IDOC resulting in suboptimal outcomes for the Department, frontline staff, and prisoners. Increased transparency will result in stakeholders being adequately informed as to IDOC disciplinary practices, thereby enabling officials to enact fundamentally sound disciplinary policies. Additionally, increased transparency may eliminate or temper the effect of costly litigation that may end with a court in part dictating IDOC disciplinary policies.

APPENDIX A: OFFENSE NUMBERS AND DEFINITIONS

DR 504 was modified in April of 2017. The Offense Numbers and Definitions listed below were taken from the version of DR 504 that was in effect when all offenses included in the analyses reported throughout this work occurred. The archived version of DR 504 in effect prior to April 2017 can be found at

https://www.cyberdriveillinois.com/departments/index/register/volume41/register_volume41_issue13.pdf starting at page 3,869.

100. VIOLENT ASSAULT OF ANY PERSON

Causing a person or an object to come into contact with another person in a deadly manner or in a manner that results in serious bodily injury.

101. ARSON

Setting fire in any location whether public or private, including, but not limited to, any part of the facility, its grounds, or State vehicles.

102. ASSAULTING ANY PERSON

Causing a person, substances, or an object to come into contact with another person in an offensive, provocative, or injurious manner or fighting with a weapon.

103. BRIBERY & EXTORTION

Demanding or receiving anything of value in exchange for protection, to avoid bodily injury, or through duress or pressure. Giving or receiving money or anything of value to violate State or federal law or to commit any act prohibited under this Part.

104. DANGEROUS CONTRABAND

Possessing, manufacturing, introducing, selling, supplying to others or using without authorization any explosive, acid, caustic material for incendiary devices, ammunition, dangerous chemical, escape material, knife, sharpened instrument, gun, firearm, razor, glass, bludgeon, brass knuckles, cutting tools, tools which may be used to defeat security measures such as hacksaw blades, keys, and lock picks, any other dangerous or deadly weapon or substance of like character or any object or instrument that is made to appear to be or could be used as a deadly or dangerous weapon or substance.

105. DANGEROUS DISTURBANCES

Causing, directing, or participating in any action or group activity that may seriously disrupt or endanger a facility, persons, or property, including the taking or holding of hostages by force or threat of force and engaging in prohibited group activities such as work stoppages or hunger strikes.

106. ESCAPE OR RUNAWAY

For escape of a felon or runaway of a juvenile delinquent, leaving or failing to return to lawful custody without authorization, including the failure to return from furlough, leave, or authorized absence within 2 hours after the designated time.

107. SEXUAL MISCONDUCT

Engaging in sexual intercourse, sexual conduct, or gesturing, fondling, or touching done to sexually arouse, intimidate, or harass either or both persons; or engaging in any of these activities with an animal.

108. SEXUAL ASSAULT

Causing unwilling contact between the sex organ of one person and the sex organ, mouth, or anus of another person or any intrusion of any part of the body of one person or object into the sex organ or anus of another person by use of force or threat of force, including pressure, threats, or any other actions or communications by one or more persons to force another person to engage in a partial or complete sexual act.

109. ELECTRONIC CONTRABAND

Possessing, selling, receiving, supplying to others, or using without authorization any electronic device, video recording device, computer, or cellular communications equipment, including, but not limited to, cellular telephones, cellular telephone batteries, pagers, computers, and computer peripheral equipment.

110. IMPEDING OR INTERFERING WITH AN INVESTIGATION

Obstructing, impeding, or refusing to provide information relevant to an investigation

201. CONCEALMENT OF IDENTITY

Wearing a disguise or a mask, impersonating another, or otherwise concealing one's identity.

202. DAMAGE OR MISUSE OF PROPERTY

Destroying, damaging, removing, altering, tampering with, or otherwise misusing property belonging to the State, another person, or entity, including the obstruction of locks or security devices, destroying or tampering with bar codes or identification cards, or the use of another person's identification card.

203. DRUGS AND DRUG PARAPHERNALIA

Possessing, manufacturing, introducing, selling, supplying to others, or receiving alcohol, any intoxicant, inhalant, narcotic, syringe, needle, controlled substance, or marijuana; or being under the influence of any of the above substances; or refusing to be tested for drug or alcohol use, including failure to provide a specimen within 2 hours after the request; or destroying or tampering with drug or alcohol tests or testing equipment.

204. FORGERY

Forging, counterfeiting, or reproducing without authorization any document, article of identification, money, security, or official paper.

205. SECURITY THREAT GROUP OR UNAUTHORIZED ORGANIZATIONAL ACTIVITY

Engaging in security threat group or unauthorized organizational activities, meetings, or criminal acts; displaying, wearing, possessing, or using security threat group or unauthorized organizational insignia or materials; or giving security threat group or unauthorized organizational signs.

206. INTIMIDATION OR THREATS

Expressing by words, actions, or other behavior an intent to injure any person or property that creates the reasonable belief that physical, monetary or economic harm to that person or to another will result

208. DANGEROUS COMMUNICATIONS

Engaging in verbal or written communication that is likely to encourage violence against persons or that is likely to disrupt or endanger the safety and security of the facility, including, but not limited to, escape plans and manufacture of weapons.

209. DANGEROUS WRITTEN MATERIAL

Possessing or causing to be brought into the facility written material that presents a serious threat to the safety and security of persons or the facility, including, but not limited to, written material relating to methods of escape and the manufacture of weapons.

210. IMPAIRMENT OF SURVEILLANCE

Using curtains, coverings, or any other matter or object in an unauthorized manner that obstructs or otherwise impairs the line of vision into an offender's cell or room or which obstructs or otherwise impairs any viewing panel or surveillance equipment, both audio and visual, within the facility.

211. POSSESSION OR SOLICITATION OF UNAUTHORIZED PERSONAL INFORMATION

Possessing or soliciting unauthorized personal information regarding another offender, releasee, employee, or former employee, including, but not limited to, personnel files, master files, medical or mental health records, photographs, social security numbers, home addresses, financial information, or telephone numbers, except as authorized by a court order or as approved in writing by the Chief Administrative Officer.

212. FRIVOLOUS LAWSUIT

A pleading, motion, or other paper filed by the offender for which the court, in accordance with 730 ILCS 5/3-6-3, has found to be frivolous

213. FAILURE TO REVEAL ASSETS

For adult offenders and juvenile offenders tried as adults, failing to fully cooperate in revealing financial assets on the form provided, including tangible and intangible property and real and personal property; providing false or inaccurate information regarding financial assets or dependents on the forms provided; or refusing to cooperate in revealing financial assets on the form provided.

301. FIGHTING

Fighting with another person in a manner that is not likely to cause serious bodily injury to one or the other and that does not involve the use of a weapon.

302. GAMBLING

Operating or playing a game of chance or skill for anything of value, making a bet upon the outcome of any event, or possessing any gambling device. This shall include participating in any lottery.

303. GIVING FALSE INFORMATION TO AN EMPLOYEE

Lying or knowingly providing false information to an employee, either orally or in writing.

304. INSOLENCENCE

Talking, touching, gesturing, or other behavior that harasses, annoys, or shows disrespect.

305. THEFT

Taking property belonging to another person or entity or the facility without the owner's authorization.

306. TRANSFER OF FUNDS

Causing money to be transferred from one trust fund to another or through an outside source to the account of another offender or entering into contracts or credit agreements without written approval from the Chief Administrative Officer.

307. UNAUTHORIZED MOVEMENT

Being anywhere without authorization or being absent from where required to be or returning late or not traveling directly to or from any authorized destination without prior staff approval.

308. CONTRABAND OR UNAUTHORIZED PROPERTY

Possessing, giving, loaning, receiving, or using property that an offender has no authorization to have or to receive and that was not issued to the individual through regular procedures, including the unauthorized possession of food or clothing or the possession of property in excess of that authorized by the facility; or property that has been altered from its original state.

309. PETITIONS, POSTINGS, AND BUSINESS VENTURES

Writing, signing, or circulating a petition without authorization; unauthorized distributing or posting of any printed or written materials, including surveys; engaging in an unauthorized business venture; or representing oneself as a corporation or official of a corporation without authorization.

310. ABUSE OF PRIVILEGES

Violating any rule regarding visits, mail, the library, yard, commissary, telephone, or recreational activities. This includes corresponding or communicating with a victim, a victim's family member, or any other person after the offender has received notice that such person has informed the Department that he or she does not wish to receive correspondence from the offender.

However, if the conduct also constitutes a violation of federal or State law, a committed person may also be charged under #501.

311. FAILURE TO SUBMIT TO MEDICAL OR FORENSIC TESTS

Willfully refusing to submit to, or cooperate with, testing, examinations, or the provision of samples required by court order, State law, or current standards of public health and safety, including the refusal to submit to annual tuberculosis screening and mandatory HIV or DNA testing.

402. HEALTH, SMOKING, OR SAFETY VIOLATIONS

Smoking in an unauthorized area; tattooing or body piercing, including, but not limited to, piercing of the ear, nose, or lip; or disregarding basic hygiene of any person, cell, living or work area, or other place in the facility or its grounds.

403. DISOBEYING A DIRECT ORDER

Willfully refusing or neglecting to comply with an order, including the refusal to participate in educational testing; to accept a work, educational, or housing assignment; or to perform a work assignment.

404. VIOLATION OF RULES

Willfully disobeying any rule of the facility. If the specific offense is stated elsewhere in this Part, a committed person may not be charged with this offense. The rule violated must be specified in the disciplinary report.

405. FAILURE TO REPORT

Failure to report for a work, educational, or program assignment or for transport.

406. TRADING OR TRAFFICKING

Trading or trafficking with any person.

501. VIOLATING STATE OR FEDERAL LAWS

Committing any act that would constitute a violation of State or federal law. If the specific offense is stated elsewhere in this Part, an offender may not be charged with this offense except as otherwise provided in this Section. The State or federal offense must be specified in the disciplinary report.

601. AIDING AND ABETTING, ATTEMPT, SOLICITATION, OR CONSPIRACY

Aiding and abetting any person in the commission of any of these offenses; attempting to commit any of these offenses; making plans to commit any of these offenses; soliciting another to commit any of these offenses; or conspiring to commit any of these offenses shall be considered the same as the commission of the offense itself and shall carry the penalty prescribed for the underlying offense.

APPENDIX B: TABLES OF THE SINGLE-LEVEL LOGISTIC REGRESSION MODELS
NOT FULLY REPORTED IN CHAPTERS FIVE AND SIX

From Chapter Five, Results of Single-Level Logistic Regression Models—Level 300 Offenses.

Model #2: Single-level logistic regression of effects of variables on whether or not a prisoner received verbal warning as dependent variable (no= 0/yes= 1); corresponds with Table 509b.

	B	S.E.	Wald	df	Sig.	Exp(B)
Variables Representing Extralegal Factors						
Age at time of offense	0.015	0.002	95.466	1	0.000	1.015
Sentence (in days) Log 10 trans	0.414	0.049	71.509	1	0.000	1.512
Race (Black)— <i>Comparison Group</i>			17.308	3	0.001	
Race (Hispanic)	-0.197	0.053	13.824	1	0.000	0.821
Race (Other)	-0.115	0.229	0.252	1	0.616	0.891
Race (White)	0.029	0.039	0.531	1	0.466	1.029
Street gang status (active)— <i>Comparison Group</i>			9.961	2	0.007	
Street gang status (inactive)	-0.233	0.125	3.457	1	0.063	0.792
Street gang status (unknown)	0.085	0.040	4.541	1	0.033	1.089
Subject to T.I.S. (no)	-0.123	0.077	2.522	1	0.112	0.884
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	0.047	0.034	1.866	1	0.172	1.048
Offense classification (major)	1.482	0.040	1368.736	1	0.000	4.402
Prior level 100 violent offense (current incarceration) (yes)	-0.161	0.126	1.642	1	0.200	0.851
Found guilty of any prior offense (current incarceration) (yes)	-1.069	0.041	682.881	1	0.000	0.344
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.254	0.046	29.852	1	0.000	0.776
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.214	0.040	27.923	1	0.000	0.808
Constant	-3.197	0.176	331.306	1	0.000	0.041
Key Statistical Measures Associated With Model #2						
X ² /df	2913.89/14		Cox & Snell R Square		.124	
p	< .001		Nagelkerke R Square		.184	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Verbal Warning: No	Verbal Warning: Yes	% Correct			
Verbal Warning: No	15,538	971	94.1%			
Verbal Warning: Yes	4,238	1,212	22.2%			
Overall %				76.3%		

Model #3: Single-level logistic regression of effects of variables on whether or not a prisoner received verbal warning as dependent variable (no= 0/yes= 1); corresponds with Table 509c.

	B	S.E.	Wald	df	Sig.	Exp(B)
P9— <i>Reference Category</i>			1495.968	26	0.000	
P1	-0.340	0.152	4.990	1	0.025	0.712
P2	0.824	0.131	39.795	1	0.000	2.279
P3	0.050	0.133	0.142	1	0.707	1.052
P4	0.384	0.134	8.261	1	0.004	1.468
P5	-2.165	0.172	157.689	1	0.000	0.115
P6	0.325	0.152	4.551	1	0.033	1.383
P7	0.555	0.126	19.573	1	0.000	1.743
P8	-0.521	0.158	10.852	1	0.001	0.594
P10	-0.335	0.143	5.466	1	0.019	0.716
P11	0.463	0.134	11.934	1	0.001	1.590
P12	-1.370	0.178	59.171	1	0.000	0.254
P13	0.076	0.143	0.281	1	0.596	1.079
P14	0.551	0.156	12.436	1	0.000	1.735
P15	0.275	0.130	4.444	1	0.035	1.316
P16	-2.440	0.725	11.336	1	0.001	0.087
P17	-1.199	0.202	35.079	1	0.000	0.302
P18	0.644	0.151	18.183	1	0.000	1.904
P19	-0.904	0.147	37.777	1	0.000	0.405
P20	-1.988	0.244	66.226	1	0.000	0.137
P21	1.033	0.129	64.181	1	0.000	2.808
P22	0.667	0.149	20.123	1	0.000	1.948
P23	0.156	0.260	0.361	1	0.548	1.169
P24	-0.839	0.150	31.323	1	0.000	0.432
P25	0.093	0.132	0.497	1	0.481	1.098
P26	-0.876	0.134	42.905	1	0.000	0.416
P27	-1.331	0.200	44.264	1	0.000	0.264
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	-0.314	0.037	72.752	1	0.000	0.731
Offense classification (major)	-1.498	0.044	1144.965	1	0.000	0.224
Prior level 100 violent offense (current incarceration) (yes)	0.016	0.132	0.014	1	0.905	1.016
Found guilty of any prior offense (current incarceration) (yes)	-1.282	0.042	923.490	1	0.000	0.277
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.020	0.047	0.173	1	0.677	0.981
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.148	0.041	13.324	1	0.000	0.862

Constant	-1.437	0.071	408.255	1	0.000	0.238
Key Statistical Measures Associated With Model #3						
X ² /df	4,596.31/32		Cox & Snell R Square		.189	
p	< .001		Nagelkerke R Square		.280	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Verbal Warning: No	Verbal Warning: Yes	% Correct			
Verbal Warning: No	15,692	871	95.1%			
Verbal Warning: Yes	3,842	1,608	29.5%			
Overall %				78.8%		

Model #2: Single-level logistic regression of effects of variables on whether prisoner received loss or restriction of privileges only as dependent variable (no= 0/yes= 1); corresponds with Table 514b.

	B	S.E.	Wald	df	Sig.	Exp(B)
Variables Representing Extralegal Factors						
Age at time of offense	0.008	0.002	22.112	1	0.000	1.008
Sentence (in days) Log 10 trans	0.122	0.050	5.874	1	0.015	1.130
Race (Black)— <i>Comparison Group</i>			9.719	3	0.021	
Race (Hispanic)	-0.131	0.054	5.830	1	0.016	0.877
Race (Other)	0.201	0.263	0.581	1	0.446	1.222
Race (White)	-0.095	0.042	5.192	1	0.023	0.910
Street gang status (active)— <i>Comparison Group</i>			5.809	2	0.055	
Street gang status (inactive)	-0.231	0.124	3.495	1	0.062	0.793
Street gang status (unknown)	0.045	0.040	1.290	1	0.256	1.046
Subject to T.I.S. (no)	-0.238	0.078	9.357	1	0.002	0.788
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	-0.190	0.035	29.232	1	0.000	0.827
Offense classification (major)	-1.644	0.035	2181.713	1	0.000	0.193
Prior level 100 violent offense (current incarceration) (yes)	-0.005	0.102	0.003	1	0.957	0.995
Found guilty of any prior offense (current incarceration) (yes)	0.249	0.047	27.902	1	0.000	1.282
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.697	0.043	267.743	1	0.000	0.498
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.320	0.040	64.279	1	0.000	0.726
Constant	-0.730	0.176	17.238	1	0.000	0.482

Key Statistical Measures Associated With Model #2			
X ² /df	3,178.21/14	Cox & Snell R Square	.175
p	< .001	Nagelkerke R Square	.235
Classification Table (C.I. 95%)			
Observed	Predicted		
	Other Sanction	Loss or Restriction of Privileges Only	% Correct
Other Sanction	5,022	2,238	69.2%
Loss or Restriction of Privileges Only	2,724	6,525	70.5%
Overall %			69.9%

Model #3: Single-level logistic regression of effects of variables on whether prisoner received loss or restriction of privileges only as dependent variable (no= 0/yes= 1); corresponds with Table 514c.

	B	S.E.	Wald	df	Sig.	Exp(B)
P25— <i>Reference Category</i>			1521.787	26	0.000	
P1	-0.382	0.153	6.211	1	0.013	0.682
P2	0.865	0.132	43.190	1	0.000	2.374
P3	0.038	0.134	0.081	1	0.776	1.039
P4	0.317	0.136	5.407	1	0.020	1.373
P5	-2.329	0.174	178.891	1	0.000	0.097
P6	0.366	0.155	5.599	1	0.018	1.442
P7	0.550	0.127	18.803	1	0.000	1.733
P8	-0.561	0.160	12.335	1	0.000	0.571
P9	-0.360	0.144	6.256	1	0.012	0.698
P10	0.386	0.135	8.161	1	0.004	1.470
P11	-1.369	0.179	58.367	1	0.000	0.254
P12	0.043	0.145	0.086	1	0.769	1.044
P13	0.633	0.159	15.870	1	0.000	1.883
P14	0.280	0.131	4.568	1	0.033	1.323
P15	-2.555	0.726	12.399	1	0.000	0.078
P16	-1.165	0.203	32.981	1	0.000	0.312
P17	0.753	0.153	24.392	1	0.000	2.124
P18	-0.939	0.148	40.187	1	0.000	0.391
P19	-1.961	0.245	64.031	1	0.000	0.141
P20	0.952	0.130	53.846	1	0.000	2.592
P21	0.595	0.150	15.709	1	0.000	1.813
P22	0.090	0.263	0.116	1	0.734	1.094
P23	-1.048	0.153	47.008	1	0.000	0.351
P24	0.149	0.134	1.246	1	0.264	1.161
P26	-0.853	0.135	40.010	1	0.000	0.426
P27	-1.354	0.201	45.384	1	0.000	0.258

Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	-0.225	0.042	29.074	1	0.000	0.798
Offense classification (major)	-2.192	0.047	2185.758	1	0.000	0.112
Prior level 100 violent offense (current incarceration) (yes)	0.150	0.118	1.618	1	0.203	1.162
Found guilty of any prior offense (current incarceration) (yes)	-0.030	0.055	0.301	1	0.583	0.970
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.269	0.049	29.883	1	0.000	0.764
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.090	0.044	4.220	1	0.040	0.914
Constant	-0.628	121.500	0.000	1	0.996	0.534
Model Summary						
X ² /df	7,577.42/32		Cox & Snell R Square		.368	
p	< .001		Nagelkerke R Square		.493	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Other Sanction	Loss or Restriction of Privileges Only	% Correct			
Other Sanction	5,573	1,687	76.8%			
Loss or Restriction of Privileges Only	1,640	7,609	82.3%			
Overall %			79.8%			

From Chapter Six, Results of Single-Level Logistic Regression Models—Level 400 Offenses.

Model #2: Single-level logistic regression of effects of variables on whether or not a prisoner received verbal warning as dependent variable (no= 0/yes= 1); corresponds with Table 609b.

	B	S.E.	Wald	df	Sig.	Exp(B)
Variables Representing Extralegal Factors						
Age at time of offense	0.014	0.002	63.456	1	0.000	1.014
Sentence (in days) Log 10 trans	0.670	0.055	147.122	1	0.000	1.954
Race (Black)— <i>Comparison Group</i>			2.875	3	0.411	
Race (Hispanic)	-0.060	0.057	1.109	1	0.292	0.941
Race (Other)	-0.167	0.257	0.424	1	0.515	0.846
Race (White)	-0.063	0.043	2.112	1	0.146	0.939
Street gang status (active)— <i>Comparison Group</i>			0.937	2	0.626	

Street gang status (inactive)	0.105	0.128	0.667	1	0.414	1.111
Street gang status (unknown)	0.029	0.043	0.457	1	0.499	1.029
Subject to T.I.S. (no)	-0.115	0.087	1.733	1	0.188	0.892
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	-0.055	0.049	1.243	1	0.265	0.947
Offense classification (major)	-1.500	0.049	921.254	1	0.000	0.223
Prior level 100 violent offense (current incarceration) (yes)	-0.099	0.131	0.567	1	0.452	0.906
Found guilty of any prior offense (current incarceration) (yes)	-1.301	0.045	821.037	1	0.000	0.272
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.104	0.049	4.410	1	0.036	0.901
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.151	0.044	11.761	1	0.001	0.860
Constant	-3.024	0.197	236.663	1	0.000	0.049
Key Statistical Measures Associated With Model #2						
X ² /df	2,271.52/14		Cox & Snell R Square		.144	
p	< .001		Nagelkerke R Square		.194	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Verbal Warning: No	Verbal Warning: Yes	% Correct			
Verbal Warning: No	7,456	1,337	84.8%			
Verbal Warning: Yes	3,244	2,626	44.7%			
Overall %				68.8%		

Model #3: Single-level logistic regression of effects of variables on whether prisoner received verbal warning as dependent variable (no= 0/yes= 1); corresponds with Table 609c.

	B	S.E.	Wald	df	Sig.	Exp(B)
P24— <i>Reference Category</i>			1280.706	26	0.000	
P1	0.358	0.191	3.506	1	0.061	1.431
P2	1.744	0.138	158.768	1	0.000	5.719
P3	1.165	0.151	59.277	1	0.000	3.205
P4	1.050	0.160	43.128	1	0.000	2.858
P5	-1.595	0.180	78.407	1	0.000	0.203
P6	0.758	0.212	12.739	1	0.000	2.135
P7	0.722	0.135	28.480	1	0.000	2.059
P8	-0.025	0.133	0.035	1	0.852	0.975
P9	0.392	0.173	5.153	1	0.023	1.481
P10	0.641	0.147	18.881	1	0.000	1.898
P11	0.970	0.160	36.838	1	0.000	2.639

P12	-0.537	0.160	11.227	1	0.001	0.585
P13	0.769	0.141	29.934	1	0.000	2.158
P14	1.172	0.181	41.765	1	0.000	3.228
P15	0.968	0.144	45.035	1	0.000	2.633
P16	-0.584	0.507	1.329	1	0.249	0.558
P17	0.937	0.147	40.871	1	0.000	2.552
P18	0.722	0.145	24.715	1	0.000	2.058
P19	-0.671	0.141	22.598	1	0.000	0.511
P20	-0.539	0.164	10.827	1	0.001	0.583
P21	1.774	0.145	148.936	1	0.000	5.891
P22	1.056	0.153	47.685	1	0.000	2.875
P23	1.774	0.275	41.582	1	0.000	5.897
P25	0.172	0.124	1.938	1	0.164	1.188
P26	-0.019	0.133	0.021	1	0.886	0.981
P27	0.304	0.158	3.698	1	0.054	1.355
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	-0.302	0.053	32.362	1	0.000	0.739
Offense classification (major)	-1.630	0.057	819.245	1	0.000	0.196
Prior level 100 violent offense (current incarceration) (yes)	0.145	0.138	1.105	1	0.293	1.156
Found guilty of any prior offense (current incarceration) (yes)	-1.363	0.047	846.953	1	0.000	0.256
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	0.066	0.052	1.634	1	0.201	1.068
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.141	0.044	10.037	1	0.002	0.869
Constant	-0.642	0.073	76.348	1	0.000	0.526
Key Statistical Measures Associated With Model #3						
X ² /df	3,524.50/32		Cox & Snell R Square		.214	
p	< .001		Nagelkerke R Square		.289	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Verbal Warning: No	Verbal Warning: Yes	% Correct			
Verbal Warning: No	7,147	1,646	81.3%			
Verbal Warning: Yes	2,464	3,406	58.0%			
Overall %				72.0%		

Model #2: Single-level logistic regression of effects of variables on whether or not a prisoner received loss or restriction of privileges only as dependent variable (no= 0/yes= 1); corresponds with Table 614b.

	B	S.E.	Wald	df	Sig.	Exp(B)
Variables Representing Extralegal Factors						
Age at time of offense	0.001	0.003	0.232	1	0.630	1.001
Sentence (in days) Log 10 trans	0.233	0.083	7.999	1	0.005	1.263
Race (Black)— <i>Comparison Group</i>			17.733	3	0.000	
Race (Hispanic)	-0.076	0.086	0.789	1	0.374	0.926
Race (Other)	0.465	0.411	1.281	1	0.258	1.591
Race (White)	-0.253	0.064	15.839	1	0.000	0.777
Street gang status (active)— <i>Comparison Group</i>			0.523	2	0.770	
Street gang status (inactive)	-0.062	0.202	0.094	1	0.759	0.940
Street gang status (unknown)	-0.043	0.062	0.490	1	0.484	0.957
Subject to T.I.S. (no)	-0.302	0.127	5.707	1	0.017	0.739
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	0.033	0.069	0.228	1	0.633	1.034
Offense classification (major)	-2.547	0.056	2057.193	1	0.000	0.078
Prior level 100 violent offense (current incarceration) (yes)	-0.539	0.162	11.032	1	0.001	0.583
Found guilty of any prior offense (current incarceration) (yes)	0.225	0.073	9.577	1	0.002	1.253
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.715	0.066	117.171	1	0.000	0.489
Placed in disciplinary segregation during prior incarceration(s) (yes)	-0.390	0.062	39.960	1	0.000	0.677
Constant	-0.998	0.290	11.873	1	0.001	0.369
Key Statistical Measures Associated With Model #2						
X ² /df	3,120.42/14		Cox & Snell R Square		.299	
p	< .001		Nagelkerke R Square		.406	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Other Sanction	Loss or Restriction of Privileges Only	% Correct			
Other Sanction	2,329	1,062	68.7%			
Loss or Restriction of Privileges Only	720	4,682	86.7%			
Overall %				79.7%		

Model #3: Single-level logistic regression of effects of variables on whether prisoner received loss or restriction of privileges only as dependent variable (no= 0/yes= 1); corresponds with Table 614c.

	B	S.E.	Wald	df	Sig.	Exp(B)
P6— <i>Reference Category</i>			1424.280	26	0.000	
P1	-0.606	0.379	2.560	1	0.110	0.545
P2	-4.439	0.423	109.869	1	0.000	0.012
P3	-0.657	0.361	3.318	1	0.069	0.518
P4	1.670	0.510	10.727	1	0.001	5.314
P5	0.057	0.331	0.030	1	0.863	1.059
P7	1.856	0.347	28.679	1	0.000	6.398
P8	-1.747	0.320	29.766	1	0.000	0.174
P9	-2.332	0.372	39.389	1	0.000	0.097
P10	-0.268	0.341	0.620	1	0.431	0.765
P11	0.523	0.421	1.547	1	0.214	1.688
P12	-0.408	0.334	1.492	1	0.222	0.665
P13	1.616	0.442	13.386	1	0.000	5.031
P14	-1.798	0.386	21.726	1	0.000	0.166
P15	-2.785	0.347	64.343	1	0.000	0.062
P16	-2.107	0.736	8.203	1	0.004	0.122
P17	0.358	0.328	1.190	1	0.275	1.430
P18	-1.380	0.339	16.546	1	0.000	0.252
P19	1.196	0.365	10.732	1	0.001	3.306
P20	0.155	0.328	0.224	1	0.636	1.168
P21	2.097	0.362	33.506	1	0.000	8.146
P22	0.905	0.405	4.983	1	0.026	2.472
P23	0.534	0.461	1.340	1	0.247	1.706
P24	0.421	0.380	1.226	1	0.268	1.523
P25	0.740	0.323	5.240	1	0.022	2.096
P26	0.961	0.341	7.930	1	0.005	2.614
P27	-2.477	0.377	43.145	1	0.000	0.084
Variables Representing Legal Factors						
Number of offenses this ODR (two or more)	0.012	0.085	0.022	1	0.883	1.013
Offense classification (major)	-3.172	0.081	1516.872	1	0.000	0.042
Prior level 100 violent offense (current incarceration) (yes)	-0.277	0.182	2.323	1	0.127	0.758
Found guilty of any prior offense (current incarceration) (yes)	0.090	0.087	1.061	1	0.303	1.094
Placed in disciplinary segregation prior to this offense (current incarceration) (yes)	-0.187	0.076	6.006	1	0.014	0.829
Placed in disciplinary segregation during prior	-0.188	0.068	7.576	1	0.006	0.828

incarceration(s) (yes)						
Constant	-0.152	0.104	2.164	1	0.141	0.859
Key Statistical Measures Associated With Model #3						
X ² /df	5,246.67/32		Cox & Snell R Square		.449	
p	< .001		Nagelkerke R Square		.610	
Classification Table (C.I. 95%)						
Observed	Predicted					
	Other Sanction	Loss or Restriction of Privileges Only		% Correct		
Other Sanction	2,662	729		78.5%		
Loss or Restriction of Privileges Only	642	4,760		88.1%		
Overall %				84.4%		

APPENDIX C: SUPPLEMENTARY INFORMATION ON MULTI-LEVEL STATISTICAL
MODELS

Level 300 Offenses—Verbal Warning: Statistics for Multi-Level Logistic Regression Model
(Null Model)

AIC	BIC	LogLink	Deviance	df.residual
22792.3	22808.3	-11394.1	22788.3	21957
Scaled residuals:				
Min.	1 st Quartile	Median	3 rd Quartile	Max.
-.8915	-.6841	-.4650	-.1762	5.6762
Random effects:				
Group name	Variance		S.D.	
Prisons (intercept)	.8691		.9322	
Number of observations: 21959, groups: Prisons, 27				
Fixed effects:				
	Estimate	Std. Error	z value	Sig.
Intercept	-1.3650	.1811	-7.538	< .001
Conditional intraclass correlation coefficient: .2090				
Conditional R²: 0.209				
Indicators of properly fit model:				
Convergence_ok: true (2.92169078210167e-06)				
Is_singular: false				
Skewness value of residuals: 1.083				

Level 300 Offenses—Verbal Warning: Statistics for Multi-Level Logistic Regression Model
Reported in Table 510

AIC	BIC	LogLink	Deviance	df.residual
19887.7	20015.7	-9927.9	19855.7	21943
Scaled residuals:				
Min.	1 st Quartile	Median	3 rd Quartile	Max.
-2.6802	-0.5547	-0.3083	-0.0692	13.2320
Conditional intraclass correlation coefficient: .159				
Variance components of mixed models:				
Fixed: 1.092				
Random: 0.813				
Residual: 3.290				
Dispersion: 0.000				
Distribution: 3.290				
Conditional R²: 0.370				
Indicators of properly fit model:				
Convergence_ok: true (0.000181198315130253)				
Is_singular: false				
Skewness value of residuals: 1.04				

Level 300 Offenses—Loss or Restriction of Privileges Only: Statistics for Multi-Level Logistic Regression Model (Null Model)

AIC	BIC	LogLink	Deviance	df.residual
18075.6	18091.0	-9035.8	18071.6	16507

Scaled residuals:				
Min.	1 st Quartile	Median	3 rd Quartile	Max.
-2.7416	-0.7206	0.4334	0.6642	4.3566
Random effects:				
Group name		Variance	S.D.	
Prisons (intercept)		2.549	1.596	
Number of observations: 16509, groups: Prisons, 27				
Fixed effects:				
	Estimate	Std. Error	z value	Sig.
Intercept	-0.06787	0.30763	-0.221	0.825
Conditional intraclass correlation coefficient: .437				
Variance Components of Mixed Models:				
Fixed: 0.000				
Random: 2.525				
Residual: 3.290				
Dispersion: 0.000				
Distribution: 3.290				
Conditional R²: 0.437				
Indicators of properly fit model:				
Convergence_ok: true (3.86532457666225e-06)				
Is_singular: false				
Skewness value of residuals: -0.340				

Level 300 Offenses—Loss or Restriction of Privileges Only: Statistics for Multi-Level Logistic Regression Model Reported in Table 515

AIC	BIC	LogLink	Deviance	df.residual
15240.5	15363.9	-7604.2	15208.5	16493
Scaled residuals:				
Min.	1 st Quartile	Median	3 rd Quartile	Max.
-5.7306	-0.5758	0.2425	0.5143	11.9684
Conditional intraclass correlation coefficient: .360				
Variance Components of Mixed Models:				
Fixed: 1.312				
Random: 2.566				
Residual: 3.290				
Dispersion: 0.000				
Distribution: 3.290				
Conditional R²: 0.542				
Indicators of properly fit model:				
Convergence_ok: true (0.000213863304610529)				
Is_singular: false				
Skewness value of residuals: -0.291				

Level 400 Offenses—Verbal Warning: Statistics for Multi-Level Logistic Regression Model
(Null Model)

AIC	BIC	LogLink	Deviance	df.residual
18432.2	18447.4	-9214.1	18428.2	14661
Scaled residuals:				
Min.	1 st Quartile	Median	3 rd Quartile	Max.
-1.4981	-0.7751	-0.5180	0.9416	2.9755
Random effects:				
Group name			Variance	S.D.
Prisons (intercept)			0.5476	0.74
Number of observations: 14663, groups: Prisons, 27				
Fixed effects:				
	Estimate	Std. Error	z value	Sig.
Intercept	-0.4316	0.1444	-2.989	< .01
Conditional intraclass correlation coefficient: .143				
Variance Components of Mixed Models:				
Fixed: 0.000				
Random: 0.546				
Residual: 3.290				
Dispersion: 0.000				
Distribution: 3.290				
Conditional R²: 0.143				
Indicators of properly fit model:				
Convergence_ok: true (3.44170511977489e-06)				
Is_singular: false				
Skewness value of residuals: 0.384				

Level 400 Offenses—Verbal Warning: Statistics for Multi-Level Logistic Regression Model
Reported in Table 610

AIC	BIC	LogLink	Deviance	df.residual
16048.5	16170.0	-8008.3	16016.5	14647
Scaled residuals:				
Min.	1 st Quartile	Median	3 rd Quartile	Max.
-3.9742	-0.6757	-0.3255	0.7443	9.2140
Conditional intraclass correlation coefficient: .131				
Variance Components of Mixed Models:				
Fixed: 1.084				
Random: 0.657				
Residual: 3.290				
Dispersion: 0.000				
Distribution: 3.290				
Conditional R²: 0.348				
Indicators of properly fit model:				
Convergence_ok: true (7.85249068704855e-05)				
Is_singular: false				

Skewness value of residuals: 0.366

Level 400 Offenses—Loss or Restriction of Privileges Only: Statistics for Multi-Level Logistic Regression Model (**Null Model**)

AIC	BIC	LogLink	Deviance	df.residual
8872.3	8886.4	-4434.1	8868.3	8791
Scaled residuals:				
Min.	1 st Quartile	Median	3 rd Quartile	Max.
-4.4483	-0.8395	0.3688	0.4715	3.9907
Random effects:				
Group name			Variance	S.D.
Prisons (intercept)			2.653	1.629
Number of observations: 8793, groups: Prisons, 27				
Fixed effects:				
	Estimate	Std. Error	z value	p value
Intercept	0.3621	0.3155	1.148	0.251
Conditional intraclass correlation coefficient: .446				
Variance Components of Mixed Models:				
Fixed: 0.000				
Random: 2.629				
Residual: 3.290				
Dispersion: 0.000				
Distribution: 3.290				
Conditional R²: 0.446				
Indicators of properly fit model:				
Convergence_ok: true (3.22193520589834e-06)				
Is_singular: false				
Skewness value of residuals: -0.449				

Level 400 Offenses—Loss or Restriction of Privileges Only: Statistics for Multi-Level Logistic Regression Model Reported in Table 615

AIC	BIC	LogLink	Deviance	df.residual
6630.7	6744.0	-3299.3	6598.7	8777
Scaled residuals:				
Min.	1 st Quartile	Median	3 rd Quartile	Max.
-8.7623	-0.4004	0.2010	0.3404	7.0464
Conditional intraclass correlation coefficient: .303				
Variance Components of Mixed Models:				
Fixed: 2.386				
Random: 2.460				
Residual: 3.290				
Dispersion: 0.000				
Distribution: 3.290				
Conditional R²: 0.597				
Indicators of properly fit model:				

Convergence_ok: true (2.52382866137659e-05)
Is_singular: false
Skewness value of residuals: -0.430

Syntax used for models.

Null models:

```
MLM1 <- glmer ( [Dependent variable] ~ 1 + ( 1 | [Grouping variable] ) ,
  data = [dataset] , family = binomial ,
  control = glmerControl(optimizer = "bobyqa" ,
  optCtrl = list (maxfun = 2e5 )))
```

Full models:

```
MLM2 <- glmer ( [Dependent variable] ~
  [individual-level effect 1] + [individual-level effect 2] +
  [individual-level effect...] + ( 1 | [Grouping Variable] ) ,
  data = [dataset] , family = binomial ,
  control = glmerControl (optimizer = "bobyqa" ,
  optCtrl = list (maxfun = 2e5 )))
```


APPENDIX D: LISTING OF “R PACKAGES”

Base R program:

R Core Team. (2018). “R: A Language and Environment for Statistical Computing.” The R Foundation for Statistical Computing. Vienna, Austria.

lme4: R package used to create multi-level logistic regression models:

Bates, D., Machler, M., Bolker, B., & Walker, S. (2015). “Fitting Linear Mixed-Effects Models Using {lme4}.” *Journal of Statistical Software*, 67(1), 1-48.

sjstats: R package used to supplement and translate results of models generated by lme4 package:

Ludecke, D. (2019). “sjstats: Statistical Functions for Regression Models (Version 0.17.3).”

dyplyr: R package used for data manipulation (recoding variables):

Wickham, H., Francois, R., Henry, L., & Muller, K. (2018). “dplyr: A Grammar of Data Manipulation.”

The base R Package and other R packages listed above can be found at <https://CRAN.R-project.org>

LIST OF REFERENCES

- Abbiati, M., Palix, J., Gasser, J., & Moulin, V. (2017). Predicting physically violent misconduct in prison: A comparison of four risk assessment instruments. *Behavioral Sciences & the Law*. 2019; 37: 61—77.
- Akoglu, H. (2018). User's Guide to Correlation Coefficients. *Turkish Journal of Emergency Medicine*, 18(3), 91-93.
- Bales, W. D., & Miller, C. H. (2012). The impact of determinate sentencing on prisoner misconduct. *Journal of Criminal Justice*, 40(5), 394–403.
- Bonner, H. S., Rodriguez, F. A., & Sorensen, J. R. (2017). Race, ethnicity, and prison disciplinary misconduct. *Journal of Ethnicity in Criminal Justice*, 15(1), 36–51.
- Brinkley-Rubenstein, L., Sivaraman, J., Rosen, D., Cloud, D. H., Junker, G., Proescholdbell, S., Shanahan, M. E., & Ranapurwala, S. I. (2019). Association of Restrictive Housing During Incarceration With Mortality After Release. *Journal of the American Medical Association (JAMA) Network Open*.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2752350>
- Butler, H. D., & Steiner, B. (2017). Examining the Use of Disciplinary Segregation within and across Prisons. *JQ: Justice Quarterly*, 34(2), 248–271.
- Camp, S. D., Gaes, G. G., Langan, N. P. & Saylor, W. G. (2003). The Influence of Prisons on Inmate Misconduct: A Multilevel Investigation. *JQ: Justice Quarterly*, 20(3), 501–533.
- Devers, L. (2011). Plea and Charge Bargaining, Research Summary. Bureau of Justice Statistics, U.S. Department of Justice.
<https://www.bja.gov/Publications/PleaBargainingResearchSummary.pdf>
- Ellison, J. M., Steiner, B., Brennan, P., & Chenane, J. L. (2016). Age Group Differences in the Predictive Validity of the Level of Service Inventory–Revised. *Prison Journal*, 96(6), 828–853.
- Flanagan, T. J. (1982). Discretion in the Prison Justice System. *Journal of Research in Crime & Delinquency*, 19(2), 216–237.
- Gendreau, P., Goggin, C. E., Law, M. A. (1997). Predicting prison misconducts. *Criminal Justice & Behavior*, 24(4), 414.

- Griffin, M. L., & Hepburn, J. R. (2006). The effect of gang affiliation on violent misconduct among inmates during the early years of confinement. *Criminal Justice & Behavior*, 33(4), 419.
- Hartley, R. D., Maddan, S., & Spohn, C. C. (2007). Concerning Conceptualization and Operationalization: Sentencing Data and the Focal Concerns Perspective--A Research Note. *Southwest Journal of Criminal Justice*, 4(1), 58–78.
- Haynes, S. H., Ruback, B., & Cusick, G. R. (2010). Courtroom Workgroups and Sentencing. *Crime & Delinquency*, 56(1), 126–161.
- Hox, J. (2010) *Multilevel Analysis Techniques and Applications, Quantitative Methodology Series 2nd ed.* New York, NY: Routledge.
- Huebner, B. M., & Bynum, T. S. (2006). An Analysis of Parole Decision Making Using a Sample of Sex Offenders: A Focal Concerns Perspective. *Criminology*, 44(4), 961–991.
- Hu, B., Shao, J., & Palta, M. (2006). Pseudo-R² in Logistic Regression Model. *Statistica Sinica*, 16(3), 847-860.
- Illinois Department of Corrections (IDOC) (2017). DR 504 Administration of Discipline, A User's Guide for Policy Implementation. Internal IDOC document; on file with author.
- Lens, V. (2012). Judge or Bureaucrat? How Administrative Law Judges Exercise Discretion in Welfare Bureaucracies. *Social Service Review*, 86(2), 269-293.
- Logan, M. W., Dulisse, B., Peterson, S., Morgan, M. A., Olma, T. M., & Paré, P.-P. (2017). Correctional Shorthands: Focal Concerns and the Decision to Administer Solitary Confinement. *Journal of Criminal Justice*, 52, 90–100.
- Maas, C. J. M., & Hox, J. (2005). Sufficient Sample Sizes for Multilevel Modeling. *Methodology*, Vol. 1(3): 86-92.
- Mangiafico, S.S. (2016). Summary and Analysis of Extension Program Evaluation in R, version 1.18.1. rcompanion.org/handbook.
- O'Keefe, D. (2003). Colloquy: Should Familywise Alpha Be Adjusted? Against Familywise Alpha Adjustment. *Human Communications Research*, 29(3), 431-447.
- Olson, D. E. & Stemen, D. (2019). An Examination of Factors Influencing the Sentencing of Convicted Felons in Illinois. Illinois Criminal Justice Information Authority. <http://www.icjia.state.il.us/assets/articles/An%20Examination%20of%20Factors%20Influencing%20the%20Sentencing%20of%20Convicted%20Felons%20in%20IL.pdf>

- Poole, E. D., & Regoli, R. M. (1980). Race, Institutional Rule Breaking and Disciplinary Response: A Study of Discretionary Decision Making Prison. *Law & Society Review*, 14(4), 931–946.
- Raudenbush, S. W. & Bryk, A. S. (2002). *Hierarchical Linear Models Applications and Data Analysis Methods 2nd ed.* Thousand Oaks, CA: Sage Publications.
- Steiner, B., Butler, H. D., & Ellison, J. M. (2014). Causes and correlates of prison inmate misconduct: A systematic review of the evidence. *Journal of Criminal Justice*, 42(6), 462–470.
- Steiner, B., & Cain, C. M. (2017). Punishment within Prison: An Examination of the Influences of Prison Officials' Decisions to Remove Sentencing Credits. *Law & Society Review*, 51(1), 70–98.
- Steiner, B., & Wooldredge, J. (2009). The relevance of Inmate Race/Ethnicity Versus Population Composition for Understanding Prison Rule Violations. *Punishment & Society*, 11(4), 459–489.
- Troyer, G. (2014). Monitoring Report Stateville Northern Reception & Classification Center. John Howard Association of Illinois.
<https://static1.squarespace.com/static/5beab48285ede1f7e8102102/t/5d15694fb24260000133613c/1561684303941/Stateville+Northern+Reception+%26+Classification+Center+Report+2014.pdf>
- Troyer, G. (2016). JHA's Summary and Guide to IDOC's Mental Health Settlement in *Rasho*. John Howard Association of Illinois.
<https://static1.squarespace.com/static/5beab48285ede1f7e8102102/t/5d30cd1bed00cd0001b4a61e/1563479324427/JHA+Rasho+Settlement+Summary+Rev+Mar+2017.pdf>

TABLE OF CASES

Rasho et al. v. Walker et al., 07-CV-1298 (C.D. Ill.) [pending litigation as of December 9th 2019]

Sandin v. Conner, 515 U.S. 472 (1995).

Superintendent v. Hill, 472 U.S. 445 (1985).

Wolff v. McDonnell, 418 U.S. 539 (1974).

VITA

Phillip Whittington earned a degree of Associate in Arts with High Honors from Elgin Community College in 2009. He then graduated from Loyola University Chicago in 2012 with a degree of Bachelor of Arts, Magna Cum Laude. Phillip subsequently enrolled in Loyola University Chicago's Criminal Justice and Criminology program. While a graduate student at Loyola, he was awarded a graduate research assistantship for 2016-2017 working under Dr. David Olson and Dr. Donald Stemen, Professors of Criminal Justice and Criminology. He earned a degree of Master of Arts with Distinction from the program in 2020 and was honored with the Thesis of the Year Award in the Social Sciences by the Council of Graduate School Programs.

While enrolled in Loyola University as an undergraduate, Phillip was placed for an internship in 2012 at the John Howard Association of Illinois (JHA), the state's only independent monitor of prisons and authority on correctional policies and practices, and was later hired by JHA as a full-time staff member in 2013. He serves as the Correctional Policy Analyst for JHA as of the date this work was published. Phillip also has served on the Illinois' Department of Corrections Advisory Board by appointment of Illinois' Governor since 2014, and has been Chair of the Board since 2018.

Phillip became involved with the criminal justice system at the age of 15, and consistently cycled in and out of the system as a junkie, probationer, jail inmate, or prison inmate for too many years that followed. Although he is appreciative of the above-mentioned awards and opportunities granted to him this past decade, Phillip often marvels that his role has shifted from being the object of criminal justice analyses to the person conducting such analyses. He

does not consider himself to be remarkable in any way. Rather, he believes there are many people caught up in our criminal justice system who can do just as well, if not better than he has these past ten years if only they are given the chance to do so.