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## **Do Parole Revocations Contribute to Racial Disproportionality in Imprisonment? A Multilevel Analysis of State Prison Admissions from 1990-2009**

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Do Parole Revocations Contribute to Racial Disproportionality in Imprisonment?  
A Multilevel Analysis of State Prison Admissions from 1990-2009

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts in Sociology

by

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University of Arkansas  
Bachelor of Arts in Sociology, Psychology, and Criminal Justice, 2014

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This thesis is approved for recommendation to the graduate council.

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## **Abstract**

Scholars have sought to understand the problem of racial disproportionality in U.S. imprisonment rates for over four decades, but current research has yet to identify the specific correctional mechanisms that exacerbate racial differences in incarceration (Garland, 2013). The rate of parole revocations increased markedly in the 1990s and 2000s, contributing to the growth in imprisonment in the US. Likewise, some research also finds that the likelihood of parole revocation varies by race, but we know little about the effect of parole revocations on imprisonment disparity (Huebner and Bynum, 2008). This study uses a sample of 24 states over a twenty year period (1990-2009) to test the hypothesis that parole revocation admissions contribute to disparity in imprisonment by race. Specifically, this study employs multilevel modeling to assess the extent to which parole revocations account for race differences in prisons admissions, when controlling for individual characteristics as well as state structural factors and policies.

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## I. Introduction

It is well-known that the United States has the largest correctional population in the industrialized world; nearly 7 million people, or 1 in every 32 Americans, are under some form of correctional supervision (Garland, 2013). This “mass incarceration” of the American populace is comparatively and historically unprecedented, and resulted in the incarceration of substantial segments of some demographic groups, specifically young minority males (Garland, 2001; Western, 2006; Alexander, 2010). The most recent statistics from the Sentencing Project (2014) estimate that black men are 6 times more likely to be incarcerated than white men. Likewise, Hispanic men are 2.4 times more likely to be imprisoned than white males (TSP, 2014). Additionally, African American women and Hispanic women are, respectively, 2.2 times and 1.3 times more likely to be incarcerated than white women (TSP, 2014).

Mass incarceration produced a multitude of collateral consequences for minorities, especially those from extremely disadvantaged urban communities (For review, see Clear, 2007). These collateral consequences include but are not limited to: the disintegration of social networks, lack of healthy social norms, and social disorganization of communities (Rose and Clear, 1998; Sampson and Bartusch, 1998; Lynch and Sabol, 2001; Clear, Rose, Warring, and Scully, 2003; Clear, 2007), political disenfranchisement (Behrens et. al, 2002; Uggen and Manza, 2002; Martinez, 2004), loss of earnings (Western, Kling, and Weiman, 2001; Western, 2006), civic isolation (Roberts, 2004; Clear, 2007), high-risk of incarceration for youth with incarcerated parents (Western and Wildeman, 2008, Wildeman and Western, 2009), and various health risks (Massoglia, 2008; Awofeso, 2010). Reversing mass incarceration and its burgeoning discontents requires understanding the social forces and specific policy choices that produced it.

Since the 1980's, scholars have debated the underlying structural forces as well as specific policy changes that produced both the expansion of imprisonment and racial disproportionality in imprisonment. However, whereas numerous studies examine the causes and correlates of the historic growth in incarceration, research on racial disproportionality is far more limited. Typically, research on racial differences focuses on whether disproportionality is the result of differential involvement in crime or discrimination in the criminal justice system. For example, some studies suggest that arrest rates, especially violent crime arrests, explain a large part (80%) of the racial differences in incarceration (Blumstein, 1982; Blumstein, 1993). Other studies suggest that, at the individual-level, minorities receive differential treatment at various stages of the criminal justice system such as police stops and searches, arrest, pretrial detention, sentencing, and release decisions (i.e. Engel and Johnson, 2006; Beckett, Nyrop, and Pfingst, 2006; D'Allesio & Stolzenberg, 2002; Spohn, 2000; Bradley and Engen, 2016). Although there is a great deal of state and regional variation in the racial composition of prisons (Blumstein, 2015), only a handful of studies have examined the influence of state structural factors on racial disproportionality in imprisonment rates (Bridges and Crutchfield, 1988; Yates and Fording, 2005). These studies indicate the importance of state-level political practices, economic conditions, and underlying social processes on racial differences in imprisonment.

It is clear that mass incarceration is the result of major policy shifts stemming from an era of law and order politics that dominated the United States during the 1980's and 1990's. Scholars argue that increasing drug arrests, prison commitments, and time served were the main contributors to growth in imprisonment (Blumstein and Beck, 1999; National Research Council, 2014). Other policy shifts such as changes in the use of parole in many states and the substantial increase in prison admissions due to parole revocations, also may have contributed to mass

incarceration and racial disproportionality (Blumstein and Beck, 1999; Blumstein and Beck, 2005). Parole violation admissions accounted for 27% of the total state prison entries and 8% of federal prison admissions in 2012 (BJS, 2013). Likewise, from 1977-2000, the number of parole violators increased sevenfold (Travis and Lawrence, 2002).

While there is little question that parole revocations played a part in increasing imprisonment rates in the United States (NRC, 2014), very few studies examine the role of parole revocations in explaining racial disproportionality in imprisonment (Huebner and Bynum, 2008). Some studies find evidence of racial disparity in parole revocations at the individual-level, when controlling for other extralegal and legal factors (Steen and Opsal, 2007; Lin, Grattet, Petersilia, 2010), but we do not know how this process contributes to disproportionality overall. Moreover, as with imprisonment rates generally, research has not clearly identified the mechanisms linking structural characteristics of states with disproportionality in imprisonment. Thus, these structural determinants could be working through correctional mechanisms such as parole revocations to exacerbate racial disproportionality.

In summary, despite significant theoretical (Beckett, 1997; Garland, 2001; Alexander, 2010) and empirical (Blumstein, 1982; Bridges, Crutchfield, Simpson, 1987; Bridges and Crutchfield, 1988; Blumstein, 1993; Crutchfield, Bridges, Pitchford, 1994; Sorensen, Hope, Stemen, 2003; Rengifo and Stemen, 2012) scholarship on the issue, it is still unclear what exact policies or mechanisms contributed to racial disproportionality in imprisonment rates. Scholars identify major policy shifts as contributing to mass incarceration, but little is known about how these policies are related to racial disproportionality or how parole revocations contribute to racial disproportionality in prison admissions. This study addresses these gaps by examining whether differences by race in parole revocation-admissions contribute to overall



disproportionality in admissions to prison. By examining prison admissions in 24 states and over 20 years (1990-2009), this research investigates whether the racial composition in prison admissions is related to state-level policies such as determinate sentencing (elimination of discretionary parole) and sentencing guidelines, levels of parole/post-release supervision, or other structural and political characteristics believed to contribute to mass incarceration.

## **II. Literature Review**

### *Criminal Justice Goals and Structures*

During most of the 20<sup>th</sup> century, the goals of rehabilitation and reintegration were central tenets of the United States criminal justice system, although success in achieving these goals appears to have been minimal (Travis and Lawrence, 2002; Steen and Opsal, 2007). Consistent with this guiding philosophy, indeterminate sentencing was the dominant system in America for the bulk of the 20<sup>th</sup> century (Tonry, 1999; Travis and Lawrence, 2002; Steen and Opsal, 2007). Under the indeterminate sentencing model, judges sentenced an offender to a prison term that included a minimum and/or a maximum length of stay (Tonry, 1996). Under this model, parole boards were a key component of the correctional system, controlling release, supervision, and revocation decisions for all offenders (Travis and Lawrence, 2002). By the 1970's, the use of discretionary release (i.e. parole) was at its peak, comprising approximately 72% of the total releases from prison in 1977 (Hughes, Wilson, and Beck, 2001).

However, also in the 1970s, policymakers from all backgrounds began to criticize the indeterminate sentencing model, focusing much of their scrutiny on judicial and administrative (parole board) discretion. Conservatives posited that these officials were too lenient, while liberals asserted that their sentences were often arbitrary and unfair to minorities (Tonry, 1996;

Travis and Lawrence, 2002). These political outcries in combination with social scientific evidence that indeterminate sentencing did not reduce recidivism led to the diminution of the rehabilitative model (Tonry, 1996; Petersilia, 2003). As a result, sentencing and correctional philosophy in the U.S. underwent a major transformation, from a system committed to offender rehabilitation and reintegration to one emphasizing retribution or “just deserts” as well as utilitarian goals of deterrence and incapacitation. For example, determinate sentencing laws developed in many states that reflect this philosophical shift (Tonry, 1996; Petersilia, 2003).

Determinate sentencing eliminates discretionary parole, and thus removes the discretion of parole boards, which many policymakers believed would correct for the fallibility of the indeterminate sentencing system (Tonry, 1996). From 1976 to 2004, 19 states adopted determinate sentencing by abolishing discretionary parole release for most offenses (Rengifo & Stemen, 2012). Many states that retained parole nonetheless imposed restrictions on release decisions; by 2005, only fourteen states gave their parole-boards total discretion to release inmates (Ireland and Prause, 2005).

Despite eliminating discretionary parole, many states maintain “post-release supervision” or mandatory parole (Ireland and Prause, 2005). Consequently, between 70 and 80% of state prisoners are released conditionally before their sentence expires (Ireland and Prause, 2005) through either traditional discretionary parole or mandatory parole. With the abolition of discretionary parole in many states, mandatory release rates began to climb, constituting nearly 41% of releases in 1999 (Hughes et. al, 2001). Research suggests that mandatory release results in less successful outcomes for parolees than discretionary release (Hughes et al, 2001; Petersilia, 2003; Rosenfeld, Wallman, and Fornago, 2005).

Therefore, method of release and sentencing structure of states could play an essential role in racial disproportionality of prison admissions, although only a few studies have examined this issue. One study found a positive correlation between parole use and racial differences in imprisonment, but this relationship diminished with the consideration of other factors (Bridges and Crutchfield, 1988). Nevertheless, the enactment of determinate sentencing in many states completely transformed the way that most parolees are released and this has implications for parole revocations and how this process contributes to prison admissions overall.

### *The Politicization of Crime and Sentencing Reforms*

Scholars argue this shift in the goals of punishment and sentencing philosophies was part of a broader political struggle during this era. Beginning in the 1960s, in response to the civil rights movement, conservative politicians increasingly emphasized “law and order” policies to mobilize white (typically working class) voters opposed racial reform. Thus, from the 1960s to the 1980s, crime as a political issue frequently went hand in hand with discussions of race and poverty (Beckett, 1997; Beckett and Sasson, 2004). Examples include Barry Goldwater’s 1964 presidential campaign that connected street crime to the ongoing civil rights protest as well as the Reagan-Bush war on crack cocaine and violent crime (Beckett, 1997). These political constructions manufactured images of the poor, especially poor minorities, as an “undeserving and ‘dangerous class’ (Beckett, 1997:45).” Moreover, conservative politicians perpetuated these images of the “underclass” as the product of the failures of a government based in social welfare in order to legitimate the disintegration of these policies (Beckett and Sasson, 2004). The political discourse of this era transformed the way that crime and punishment is viewed in the American social milieu, and its perceived connections with race and poverty had significant repercussions for impoverished minorities.

Policy changes that occurred from the “law and order” attitudes introduced during the 1960s created a system that many considered draconian in its treatment of offenders, especially in terms of drug laws (Tonry, 1995; Beckett, 1997). This politicization of crime led to the institutionalization of a new punitive model in the 1980s and 1990s. Republican and Democratic politicians enacted “...policies that promise to enhance deterrence, retribution, and public safety (mainly through incapacitation)...a top priority (Beckett, 1997: p. 8).” These policies include the development of presumptive and voluntary sentencing guidelines, mandatory minimums, habitual offender/three-strikes, and truth-in-sentencing laws. Although the effects of these specific policies remain in question, many scholars attribute mass incarceration and persistent racial disparities in imprisonment to these major historical shifts in American criminal justice and politics (Tonry, 1995; Beckett, 1997; Caplow and Simon, 1999; Tonry, 2009).

### *The New Penology*

Some scholars argue the policy changes of the 1970s through the 1990s, along with the development of the “get-tough-on-crime” political rhetoric, produced more than a shift in sentencing goals and philosophy; they contributed to an entire reformulation of the American penal state (Feeley and Simon, 1992; Garland, 2001). Specifically, Feeley and Simon (1992) argue that a “new penology” emerged from this era, establishing a penal system with markedly different goals, strategies, and implications. First, the language of corrections is increasingly concerned with risk management of subpopulations, not the rehabilitative treatment of an individual offender. Secondly, the goal is to efficiently quantify and predict the risk of a particular group within the correctional system in order to better control these categories of offenders. This new discourse brings an actuarial rationality to a process that was once discussed in terms of moral responsibility and reformation (Feeley and Simon, 1992). In doing so, the

penal system is able to distance itself from the social purpose of punishment as well as its responsibility for the individual offender. The penal sanction is no longer intended to be transformative for an offender, but a necessary step in the process to manage risky populations (Feeley and Simon, 1992).

Consequently, a variety of new cost-effective techniques evolved to classify risk and promote stricter control (Feeley and Simon, 1992; Petersilia, 2003). These include prisons with little to no rehabilitation programs, electronic monitoring and house arrest, intensive supervision that heavily emphasizes drug testing and surveillance, as well as risk assessments and other statistical techniques for classifying dangerous groups. These innovations ostensibly allow the penal state to accomplish its goals more effectively and at a lower cost than traditional imprisonment (Feeley and Simon, 1992). In support of the new penology, a comprehensive study on intensive supervision suggests that it is no more effective as a crime control mechanism than regular supervision (Petersilia and Turner, 1993). In fact, this study found that this increased surveillance and frequent drug testing during probation resulted in higher incarceration rates (Petersilia and Turner, 1993). These findings demonstrate that some of the techniques of the new penology are achieving the goals laid out by Feeley and Simon (1992).

Many of the sentencing reforms that emerged in this period reflect the new penological emphasis on risk management as well as increased efficiency and actuarial rationality. Habitual offender laws target “career criminals” while mandatory minimum sentences are typically aimed toward drug and weapon offenses (Tonry, 1996). In addition, presumptive sentencing guidelines are based on strictly legal criterion such as offense seriousness and criminal history in order to control judicial discretion and increase efficiency and rationality (Tonry, 1996). Likewise, determinate sentencing and truth-in-sentencing laws are concerned with controlling the release of

offenders, which allows for a predictable process that is relatively free from administrative discretion (Tonry, 1996). Combined, these reforms help to enact the goals of the new penology such as targeting specific groups of offenders in order to increase their length of stay in prison (three-strikes/mandatory minimums), as well as to bringing rationality and efficiency to sentencing and release decisions (determinate/sentencing guidelines/truth-in-sentencing). Moreover, the new penology ideals extend to the traditional indeterminate sentencing model. In a study of parole release decisions in Nebraska, a state that maintains discretionary release, Jon Proctor (1999) concluded that these decisions were highly routinized and based in risk assessment. Likewise, a recent survey of 47 releasing authorities in the U. S. suggests that risk assessment and/or guidelines play an essential role in many of their parole release and revocation decisions (APAI, 2008). Thus, even policies that are not rooted in new penology ideals may help to legitimate the entire process.

The new penology ideals influenced not only sentencing and release decisions; they severely impacted the goals and functions of parole. Under the new penology, state correctional authorities' original purposes of encouraging offender rehabilitation and reintegration were largely abandoned; instead, they use parole mainly as a long-term mechanism of formal social control of offenders (Feeley and Simon, 1992). As a result, community supervision and parole revocation became cost-effective mechanisms with which to monitor and control a troublesome population, not tools of rehabilitation (Feeley and Simon, 1992; Steen and Opsal, 2007). This new emphasis on "waste management" pressures parole officers to view parolees as aggregates defined by the level of risk they pose, rather than as individuals with criminogenic needs (Feeley and Simon, 1992). However, evidence suggests that many parole officers refuse to simply be "waste managers," and many still embrace the traditional rehabilitation role (Lynch, 1998).

One indicator of the supremacy of the new penology is the changing significance and meaning of recidivism. Under the old penology, reducing recidivism was the defining measure of success in the penal system (Feeley and Simon, 1992). In fact, one of the major arguments used to dismantle the indeterminate sentencing system is that it had done little to reduce recidivism rates (Tonry, 1996). Recidivism remains an important concern in the new penology, but for different reasons. The detection of recidivism is offered as evidence for the effectiveness of the social control abilities of the new penal state (Feeley and Simon, 1992). Likewise, offenders are assumed to be irredeemable so that monitoring and detection of technical violations and new, often petty, crimes are paramount. Empirical evidence supports this assertion; revocations for technical violations accounted for 42 percent of the growth in total admissions to state prisons from 1980 to 1999 (Beck, Haas, and Alpert, 1999). Thus, the redirection of parole services under the new penology, emphasizing risk management and organizational efficiency, explain the sharp increase in parole revocations during the 1990's, which directly contributed to the growth in imprisonment.

As for racial disproportionality in imprisonment, Feeley and Simon (1992) do not view the emergence of the new penology and the development of an urban minority underclass as distinct phenomena. The "dangerous class" is a socially and economically marginalized group whose collective existence is viewed as pathological (Beckett, 1997). Thus, whole segments of this irredeemable population need to be effectively and efficiently controlled (Feeley and Simon, 1992; Beckett and Western, 2001). Consequently, a new penal state that emphasizes a managerial rather than a rehabilitative task is the perfect mechanism to control a perpetually marginalized population (Feeley and Simon, 1992). As a result, the development of this new

penology probably contributed to both the growth in imprisonment and the racial disproportionality inherent within it.

### *Research on Imprisonment and Social Forces*

The relationship between social forces and imprisonment is an area of intensive empirical and theoretical study. Essentially, these studies suggest that a multitude of social forces such as economic, political, and social factors appear to exert influence on imprisonment. Three major themes emerge from this literature that may be important to a study in racial disproportionality: normative or functionalist explanations emphasizing the role of crime rates, structural explanations emphasizing inequality and conflict, and the combination of these structural factors with specific policies.

Although crime control is one of the main purposes of legal punishment (Garland, 1990), there is limited evidence to suggest that increase in imprisonment is a direct result of crime. Crime rates declined significantly in the 1990's and the 2000's while imprisonment rates continued to increase in this era and then peaked in 2007 (NRC, 2014). Moreover, despite significant innovations in technology and practices during this same era, policing effectiveness is essentially unchanged and did not appear contribute to imprisonment rates (Blumstein and Beck, 1999). Thus, imprisonment in the United States is not a direct reaction to increased crime or the result of increased police efficacy at solving crimes but rather how the nation chooses to respond to crime.

Nonetheless, punishment is in fact a response to crime (Garland, 1990). Even if mass imprisonment is not a direct result of crime rates, crime may be relevant to explaining variation in state imprisonment rates. Research at the state-level, finds a positive relationship between



crime rates, specifically violent crime, and imprisonment rates (i.e. Greenberg and West, 2001) and all of the studies on imprisonment include some measure of crime in their analysis (Jacobs and Helms, 1996; Jacobs and Carmichael, 2001; Sorensen and Stemen, 2002; Stemen and Rengifo, 2011). Sorensen and Stemen's (2002) findings suggest that the index crime rate was the strongest predictor of prison admissions in their study, while other studies indicate a positive relationship specifically between property crime and incarceration (Stemen, Rengifo, Wilson, 2012; Stucky, Heimer, Lang, 2005). Thus, normative explanations are an important consideration in understanding the growth in incarceration.

The relationship between economic stratification and punishment is one of the most extensively researched topics in criminology, dating back to the early 20th century (Rusche and Kirchheimer, 1939). Rooted in Marxian and Weberian notions of social control and social inequality (Jacobs and Helms, 1996), class conflict perspectives argue that punishment is a means to control surpluses in labor that would be particularly threatening to capitalistic domination in the social order (Spitzer, 1975; Jacobs and Helms, 1996). There is significant empirical support to suggest that unemployment and economic inequality influence overall imprisonment rates, as well as prison admissions, when controlling for crime (For review see Chiricos and Delone, 1992). Likewise, several studies find that states that spend more on social welfare demonstrate a decreased use of imprisonment (Beckett and Western, 2001; Greenberg and West, 2001; Stucky et al, 2005) garnering support that the penal system is another mechanism to control marginal populations. However, other studies suggest that unemployment is unrelated to imprisonment when considering structural factors such as the political and social environment of states (Jacobs and Helms, 1996). Nonetheless, most studies include at least one measure of poverty or inequality indexes.

The power of punishment to racially stratify has a long history in American society, extending from the “black codes” introduced in Southern states following the Civil War and the convict-leasing system under Jim Crow (Blackmon, 2009) to the modern day (Alexander, 2010). In this same vein, racial threat theorists hypothesize that large concentrations of minority populations lead to political and economic threats to the white majority, who employ punitive responses in order to maintain their hegemony (Blalock, 1967). Research finds that the size of black populations is related to indicators of social control ranging from lynching (Tolnay et al, 1989) to police strength (Kent and Jacobs, 2005). Consistent with the racial threat hypothesis, states with large black populations tend to have higher incarceration rates even when controlling for crime rates (Jacobs and Carmichael, 2001; Greenberg and West, 2001; Sorensen and Stemen, 2002; Rengifo and Stemen, 2012).

The strength of racial threat may be conditional on other factors. For example, Rengifo and Stemen (2012) found that the relationship between racial threat and incarceration is stronger in states with determinate sentencing than in states without determinate sentencing, and this relationship is strongest when the fraction of African Americans is relatively small in state populations (Rengifo and Stemen, 2012). Jacobs and Carmichael (2001) findings demonstrate that increased political emphasis on black street crime amplified the effect of African American presence on incarceration rates. Their results also indicate a positive relationship between Hispanic presence and incarceration rates during the 1990’s, a period of a significant increase in Hispanic populations. However, minority threat remained strongest with black populations (Jacobs and Carmichael, 2001) and other studies examining the effect of Latinos on imprisonment were nonsignificant or even negative (Greenberg and West, 2001). Rengifo and Stemen (2012) found that from 1978 to 2004 there was a progressive weakening of the positive

relationship between the size of black populations and incarceration rates. In conclusion, the racial composition of state populations is an important consideration in understanding imprisonment but these ambiguous findings warrant further exploration.

Since the mid 1990's, several studies tested whether political variables are related to state imprisonment rates. Typically, the findings indicate that political conservatism measured through citizen ideology and/or the presence of Republican officials/legislatures, is positively related to prison admission rates (Jacobs and Helms, 1996; Stucky, Heimer, Lang, 2005) and prison populations overall (Beckett and Western, 2001; Greenberg and West, 2001; Jacobs and Carmichael, 2001). Other studies suggest that the strength of the relationship between Republican legislative strength and imprisonment is contingent upon electoral competition (Stucky et al, 2005) Stucky and colleagues found no effect of Republican Governors on imprisonment, which is consistent with some previous research (Greenberg and West, 2001), but contested in other findings (Stemen et. al, 2005; Stemen and Rengifo, 2011). In contrast, William Spelman (2009) argues that once you control for crime rates, sentencing policies, prison overcrowding, and state spending, that political explanations appear to have a negligible effect on the growth in imprisonment.

Political explanations for growth in imprisonment assume that the relationship between political conservatism and imprisonment is the result of specific sentencing policies adopted during the tough on crime era. Therefore, recent studies examine the role of sentencing reforms in combination with the aforementioned structural indicators in explaining imprisonment trends. In fact, both determinate sentencing and presumptive sentencing guidelines appear to be consistently and *negatively* related to imprisonment (Sorensen and Stemen, 2002; Zhang, Maxwell, Vaughn, 2009; Stemen and Rengifo, 2011). Stemen and Rengifo (2011) suggest that

these two sentencing policies may insulate sentencing and release decisions from many of the social forces that contribute to high incarceration rates, even if this was not the intention of these reforms when they were enacted.

Other sentencing policies such as mandatory minimums and truth-in-sentencing laws appear to have a limited effect on imprisonment. Using data from 1967-2007, Mark Harmon (2013) found that in most cases, reforms outside of sentencing guidelines, such as the presence of statutory presumptive sentencing, truth-in-sentencing laws, and three strikes lead to an increase in prison populations. By accounting for interactions between sentencing reforms, Harmon (2013) concludes that sentencing reforms did increase imprisonment growth, but with limited effects. Specifically, states with a combination of front-end reforms (statutory presumptive sentencing, sentencing guidelines) and back-end reforms (truth-in-sentencing) experienced the higher rates of imprisonment growth than states with only one sentencing reform (Harmon, 2013). Thus, sentencing policies are an important consideration in understanding imprisonment but their effects on the prison boom and racial disproportionality warrant further study. Likewise, studies consistently find that structural factors are more influential on imprisonment rates than any sentencing reform (Sorensen and Stemen, 2002; Zhang, Maxwell, Vaughn, 2009). However, it could be that in states that did not adopt sentencing reforms such as sentencing guidelines or determinate sentencing, imprisonment rates are influenced more by correctional practices such as parole release and revocations decisions that influence time served in prison.

In conclusion, structural factors exert significant influence on a state's use of penal sanctions. However, it is still ambiguous how these social forces are translated into intensive punitive practices. While many theorists suggest that mass imprisonment is the result of

sentencing reforms developed in multiple states since the mid 1970's, there is only limited evidence to validate this claim. As a result, research needs to consider correctional practices such as parole release and revocation decisions and how these processes may contribute to not only imprisonment growth but racial disproportionality.

### *Research on Racial Disproportionality and Social Forces*

There are significant state differences and consistent regional patterns of racial disproportionality in imprisonment (Bridges and Crutchfield, 1988; Crutchfield, Bridges, Pitchford, 1994). The findings indicate a consistent regional pattern with both Northeastern and Midwestern states with the highest rates of disproportionality and Southern states with the lowest racial differences (Bridges and Crutchfield, 1988; Blumstein, 1993; Blumstein, 2015). The most recent findings employing data from 2011 suggest that Wisconsin displays the highest disproportionality ratio of 14.8 while the lowest disproportionality ratio, 3.2, exists in Mississippi (Blumstein, 2015). Also, disproportionality is lowest in states with the highest imprisonment rates (Blumstein, 2015).

Despite evidence of state variation in racial disproportionality in imprisonment, only a few studies examine the relationship between state structural or policy characteristics and racial disproportionality in imprisonment. Although there is evidence to suggest that a large proportion of racial differences in imprisonment could be the result of differential offending (Blumstein, 1982; Blumstein, 1993; Sorensen, Hope, Stemen, 2005), state structural forces are clearly related to racial disproportionality in imprisonment (Bridges and Crutchfield, 1988; Sorensen, Hope, Stemen, 2003; Yates and Fording, 2005; Keen and Jacobs, 2009; Stemen and Rengifo, 2012; Heimer, Johnson, Lang, Rengifo, Stemen, 2012).

Bridges and Crutchfield (1988) were among the first researchers to examine the role of structural factors in racial disproportionality in imprisonment. Using state-level data from 1982, their findings suggest the urban concentration of blacks and economic inequality increase the likelihood of black imprisonment, even when controlling for the differential arrests of blacks (Bridges and Crutchfield, 1988). The effect of urbanity for black populations on racial disproportionality has also been confirmed in more recent studies (Sorensen et al, 2003; Heimer et al, 2012). Scholars attribute this effect of urbanity to political constructions of the urban minority poor with criminality (Chiricos, Hogan, Gertz, 1997; Chiricos, 1998; Heimer et al, 2012).

Political factors may also contribute to racial disproportionality in imprisonment. Specifically, states with elite conservative environments in judicial and legislative positions may have larger racial differences in imprisonment (Yates and Fording, 2005). Alternatively, states with more black elected officials, female legislators, and a strong black electorate may have lower levels of racial disproportionality (Yates and Fording, 2005). Keen and Jacobs (2009) posit that African Americans political clout in states outside of the Deep South may work to reverse policies that exacerbate racial disproportionality in imprisonment.

Karen Heimer and colleagues (2012) assessed these structural factors on racial disproportionality in women's imprisonment. Their results indicate that states with a higher percentage of urban blacks and higher percentages of the population in poverty exhibit increased imprisonment among black females. Moreover, states with increased spending on welfare display lower women imprisonment rates, regardless of race (Heimer, Lang, Johnson, Rengifo, Stemen, 2012). These researchers also include a measure of a mandatory minimums and sentencing enhancements for drug offenses, which had no effect on racial difference in women's

imprisonment (Heimer et al, 2012). Thus, many of the structural factors associated with the growth in imprisonment such as politics, racial threat, and economic conditions, may also explain the marked differences between states in racial disproportionality in incarceration.

In summary, research on racial disproportionality in imprisonment is limited, but studies identify political conservatism, urban concentration of minorities, and economic inequality as influential on the racial composition of state prisons. Findings in the racial disproportionality literature are similar to those in the literature on overall imprisonment rates but black urban concentration appears to play a more important role in the former. However, as with imprisonment rates generally, research has not clearly identified the mechanisms linking structural characteristics of states with disproportionality in imprisonment. Consistently, these structural factors display a stronger relationship with imprisonment than state sentencing reforms, so research needs to look to other potential mechanisms such as correctional policies and practices. Thus, these structural determinants could be working through correctional mechanisms such as parole revocation decisions to perpetuate stark racial differences in penal sanctions.

#### *Parole Systems and Revocations: State Variation and Evidence of Disparity*

States vary widely in their usage of parole and rates of parole revocations. Parole systems in the U.S. are so fragmented that one set of researchers posit "...it is difficult, perhaps impossible, to define a common American approach to parole at the turn of the 21<sup>st</sup> century (Travis and Lawrence, 2002: 25)." The U.S. parole population is heavily concentrated in California, Texas, Pennsylvania, New York, and Illinois. These five states account for 62 percent of the total parole population (Travis and Lawrence, 2002). This concentration of parole extends

to parole violations. Some states such as Florida, Alabama, and Virginia admit less than 10 percent, whereas, in California, Montana, and Louisiana, parole violators comprise over one-half of prison admissions. In fact, the national average of prison admissions that are parole violators would be drastically reduced without California (67 percent), which has the highest rate of revocation. For example, since the implementation of California's Public Safety Realignment policy to reduce prison populations due to prison overcrowding, parole violation admissions were cut in half (65% to 23%) from 2010 to 2012 (BJS, 2014). Taken together, these findings suggest that the impact of parole revocation on imprisonment disproportionality may vary significantly between states.

Of the small number of studies that have examined racial disparity in parole revocation, a few have found a race effect on failure in parole, especially when combined with other extralegal factors. Sara Steen and Tara Opsal (2005) find that even when controlling for demographic and legal factors, race has a significant impact on the likelihood of revocation in the four states they examined. Their findings suggest that black offenders are 50 percent more likely than whites to have their parole revoked for a technical violation and 19 percent more likely to be revoked for a new offense. Moreover, black offenders with no prior felony incarcerations had higher revocation rates than their white counterparts. The researchers also find marginal evidence that the differential treatment of blacks is more pronounced for less serious offenses such as public order in comparison to property crimes (Steen and Opsal, 2007).

Recent research by Lin, Grattet, and Petersilia (2010) looked at organizational, individual, and community level predictors of parole revocation in what they referred to as "back-end sentencing" in the California parole system. These authors accounted for three types of violation behaviors: new crimes, technical violations, and absconding. Their results suggest



that gender and race/ethnicity affect the likelihood that parole violators will be reimprisoned. Specifically, minorities (African Americans and Hispanics) were more likely to have their parole revoked for criminal violations but not technical or abscond violations. Sex offenders and violent offenders also were more likely than other offenders to have their parole revoked. Likewise, prison overcrowding (organizational pressure) was negatively related to the likelihood of revocation. Furthermore, political punitiveness at the community-level increases the likelihood of revocation for both technical violators and criminal violators that commit a violent offense. Thus, the type of violation as well as the type of parole release may determine disparities in parole revocation along with organizational pressures, and community characteristics.

To summarize, research on mass imprisonment and its racial cast has yet to unpack “the black box” (Garland, 2013) of how structural factors are translated into penal sanctions. Theoretical frameworks such as the new penology suggest that the penal state functions to control and codify entire populations, not to transform the individual offender. As a result, back-end decisions such as parole release and revocation are not tools of reentry but mechanisms of surveillance and control of this dangerous population. This reformulation of penology, combined with the politicization of crime, may help to explain both the marked racial differences of mass imprisonment as well as the increase in parole revocations. Thus, policies and practices within the correctional system itself may be a mechanism through which external pressures like political climate contribute to racial disproportionality in imprisonment. Parole revocations are an essential part of the correctional apparatus but there is limited research on these decisions and none that examines how parole revocations contribute to racial disproportionality in prison admissions at the state-level. The current study contributes to the literature by addressing three fundamental questions: Are black offenders more likely to be admitted to prison on a parole

revocation, controlling for extralegal and legal factors? Do differences by race in parole-revocation admissions contribute to racial disproportionality in prison admissions overall? Finally, do state structural factors, sentencing reforms, and release mechanisms influence racial disproportionality in prison admissions?

*Hypotheses (Within-State)<sup>1</sup>*

H1: The odds that a prison admission is a parole revocation (i.e. revocation-admission) will be greater for black than white or Hispanic offenders.

*Hypotheses (Between-States)*

H2: The odds of parole revocation-admission increases over time.

H3: The odds of revocation-admission will be positively related to the proportion of conditional releases that are mandatory parole.

H4: Racial disproportionality in prison admissions (odds that a person admitted to prison is black) will be positively related to the structural and political characteristics of states.

- a. percent minorities (Black and Hispanic) in a state's population (+)
- b. poverty rate (+)
- c. political conservatism of citizens in the state (+)
- d. governor of the state is from the Republican party (+)

H5: Racial disproportionality in prison admissions will be related to sentencing policies.

- a. Determinate sentencing
- b. Presumptive guidelines
- c. Truth-in-sentencing

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<sup>1</sup> All hypotheses are conditional on controlling for individual and state characteristics.

H6: Racial disproportionality in prison admissions will be positively related to the intensity of parole supervision.

H7: Racial disproportionality in prison admissions will be positively related to racial disproportionality in parole revocations.

### **III. Methods**

#### *Data Description*

The data employed in this study come from multiple sources including the National Corrections Reporting Program (NCRP) and Annual Parole Surveys (APS) conducted by the Bureau of Justice Statistics (BJS), as well as the Federal Bureau of Investigation's Uniform Crime Reports (UCR). State structural variables such as population demographics and percent of the population under the poverty line are from the U.S. Census. State sentencing policies are collected from previously published research (Harmon, 2013; Stemen, Rengifo, and Wilson, 2005), the presence of a Republican governors from the National Governor's Association, and the measure of citizen ideology is the revised 1960-2013 citizen ideology series developed by political scientists Berry and colleagues (Berry, Ringquist, Fording, and Hanson, 1998).

The Annual Parole Survey (Bureau of Justice Statistics) obtains administrative data from parole agencies in the United States. This survey dates back to 1980 and includes measures of the characteristics of offenders on parole, the total number of adults on parole at the end and beginning of each year, and different types of parole supervision used by states. This data source is used to construct annual measures of the intensity of supervision of parole at the state-level.

My principal data source, the NCRP, collects individual-level data on prison admissions and releases annually since 1983. The data include demographic information, release type,

conviction offenses, time served, sentence length ordered, and type of admission from individual prisoner records. Participation is voluntary and some states do not report every year, but at least 38 states provided data to NCRP in some years since 2000 (BJS website). Despite this limitation, there are many advantages to NCRP. First, the admission type indicates whether the case was a parole revocation or a new court commitment. Likewise, the prison release files provide the type of release for all offenders, including whether they were released on parole (discretionary or mandatory) or released unconditionally. Most importantly, the NCRP is the only source of individual-level data on prison admissions and releases in multiple states over multiple years, allowing me to examine differences in parole revocation-admissions by race, across states, and over time, controlling for offense types, sex, and age. Most research on imprisonment and racial disproportionality examines imprisonment rates, or prison admission rates, which are based on aggregated data, that cannot control for differences in offending or admission/release types by race.

This study uses both the prison admission and release files from the NCRP for each year from 1990 to 2009. This time period is essential to a study of parole revocations because parole revocations as a portion of prison admissions, significantly increased during this time period at the national level (NRC, 2014). The final sample includes states with fifteen years or more of reliable data from the selected time period (See Appendix A and B for details). To ensure that the samples are comparable across states, we limited the data to offenders who were at least 18 years old when admitted to prison, with a maximum sentence length greater than one year, under state (i.e., not federal) jurisdiction, and whose admission type was either a new court commitment

(including probation revocations admitted to prison for the first time) or parole revocation.<sup>2</sup>

Likewise, any cases that are missing critical variables such as race or ethnicity, sex, age and sentence length were eliminated. The final sample includes only blacks, whites, and Hispanics, which eliminated only 2% of the cases from the original sample. The final sample comprises 24 states that reported at least 15 years of reliable data, with a total of 6.2 million individual cases nested in 443 state-years.

### *Dependent Variables*

Most studies of racial disproportionality include only black-white comparisons (e.g. Bridges and Crutchfield, 1988), although some include Hispanics (e.g. Harris, Steffensmeier, Ulmer, and Painter-Davis, 2009). Due to different reporting practices of Hispanic origin across states, as well as differences across states in the presence of Hispanics, the measure of disproportionality compares admissions of blacks versus whites, including Hispanics<sup>3</sup>.

**Race-ethnicity** (white and/or Hispanic = 0; black = 1).

**Admission type** (0 = new commitment or probation revocation; 1 = parole revocation).

### *Individual-Level Independent Variables*

**Age** (in years).

**Sex** (0 = female 1 = male).

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<sup>2</sup> Several states report probation revocations as new court commitments. Thus, I cannot differentiate them in the analyses. Transfers and escapes returned to prison are excluded.

<sup>3</sup> This is a limitation considering that disproportionality measures that do not include Hispanics as a separate category may mask true disproportionality between blacks and whites (see Harris et al, 2009).

**Offense type** (dummy variables indicating whether the most serious conviction offense was a person, drug, property, or other offense).

**Sentence length** (logged months, capped at 100 years).

*State-Level Variables*<sup>4</sup>

The NCRP release files are used to construct two state-level measures, racial disparity in conditional release and the proportion of all conditional releases that were from mandatory parole. Racial disproportionality in conditional release is measured as a ratio of the proportion of black releases that are conditional releases to the proportion of white releases that are conditional release. I also constructed a state aggregate measure of the proportion of all admissions to prison that are from parole revocations, as well as racial disproportionality in parole revocation admissions. Racial disproportionality in parole revocation admissions is operationalized as the ratio of the proportion of all black admissions that are parole revocations to the proportion of all white admissions that are parole revocations.

*Parole Release and Revocation*

**Black to white disproportionality in parole revocation admissions** (ratio)

**Black to white disproportionality in conditional release** (ratio)

**Proportion of all conditional releases from mandatory parole**

*State policies*

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<sup>4</sup> Due to voluntary reporting, certain years from states are missing in the NCRP release files that are present in the admission files. Also there is missing data for parolees under active supervision in the Annual Parole Surveys. Thus, I had to interpolate certain state-year combinations for the two variables (See Appendix D). I tested for the effects of interpolation in a supplementary analysis with no significant changes in results.

Analyses will focus on reforms that directly affect the parole/prison release process, policies that represent the new penology emphasis, and policies known to affect prison admission rates. All policy variables are coded as 1 beginning in the year that these laws were implemented, and 0 otherwise.

**Presumptive sentencing guidelines**

**Truth-in-sentencing** (violent offenders required to serve 85% of their sentence in prison).

*Intensity of parole supervision*

**Percentage of parolees under active supervision**

*Structural and political characteristics*

**Percent black** residents in the state

**Percent Hispanic** residents in the state

**Violent crime rate** (crimes known to police per 1,000 persons).

**Poverty rate** (percent under the poverty line in the state)

**Republican governor** (dummy coded)

**Citizen conservatism** (Originally 0-100 scale of most conservative to most liberal, reverse-coded as a measure of conservatism where 0 is the most liberal value and 100 is the most conservative value)

**Admission year** (calendar year minus 1990)

It became necessary to select only the most theoretically relevant state-level variables for the final models due to a combination of factors including multicollinearity, insufficient variation in some measures, and the modest sample size (i.e.  $N = 24$  states). As a result, the measures of property crime, percent black among conditional releases, state government conservatism, determinate sentencing, and whether states have truth-in-sentencing guidelines for most offenders were dropped from the final models and are not included in this variable description. Moreover, due to data limitations, I was unable to test variables reflecting the techniques of the New Penology such as electronic monitoring and intensive supervision practices (measured as a dichotomy) but this issue will be explored further in a subsequent project.

### *Analytical Strategy*

The main goal of this study is to understand how parole revocations contribute to racial disproportionality in prison admissions at the state-level, controlling for individual and state characteristics. To do this, this study employs a series of logistic multilevel regression models that include two levels (person and state-year), and examining two dependent variables; the likelihood that an offender admitted to prison is black (versus white or Hispanic) and the likelihood that an offender is admitted to prison on a parole revocation (versus a new commitment). Multilevel modeling is appropriate here because individual cases are nested within states, thus individuals within state are more similar than those between states. Unlike traditional logistic regression models, it allows me separate the variance attributed at the state and individual-level, and also simultaneously model state and individual differences in the use of parole revocations and racial disproportionality in prison admissions. All variables in the final models are grand-mean centered. Centering the level-1 variables on their grand means (i.e., the mean for the full sample) allows me to interpret the variation between states and years, as



controlling for compositional differences in offender and offense characteristics (Bryk and Raudenbush, 1992, p. 26). Supplemental analyses using group-mean centering did not lead to substantively disparate findings or conclusions.

These logistic multilevel models allow me to distinguish differences in the racial composition of the offenders admitted to prison as well as differences in the admission type of offenders admitted to prison, at the state-year level, controlling for individual offender characteristics. This two level model includes a level-1 regression equation predicting the outcome (race or parole revocation admission), which is estimated for individuals within states, as well as a set of level-2 equations predicting the intercepts and slopes from the within-state regressions. In the level 1 (within-state) model, the outcome for each offender within a particular state is a function of the intercept for the state, plus the within-state effect of offender and offense characteristics, as well as an error term representing the deviation of that case from the expected outcome in the state. Treating race as the dependent variable may seem counterintuitive, but using this variable as an outcome allows me to estimate the racial composition of prison admissions, net of other individual characteristics. In this model, the level 1 coefficients are not truly effects on race but rather describe the relationship between race and other legal (sentence length, offense type) and extralegal (age, sex, Hispanic origin) characteristics of individual offenders, and to control for the composition of state prison admissions.

In the level 2 (between-state) model, the state intercepts are a function of the average (expected) outcome across states (also known as the fixed effect) plus an error term representing the deviation of a state from this fixed effect. When race is the outcome, the level 2 intercepts represent the log-odds that an offender admitted to prison is black for each state-year pair. In

logistic regression, the odds of an outcome equals the probability of the event (P) divided by the probability of the event not occurring (1-P). Thus, since the outcome is the odds that an offender is black, estimated within each state-year level, each state-year intercept is the equivalent to the ratio of the proportion of prison admissions that are black to the proportion of admissions that are non-black logged. Likewise, any randomly varying slopes are the result of a fixed effect (average effect across states) plus an error term representing the unique effect of each specific state on the slope. Thus, the multilevel model allows me to estimate both of my prison admission outcomes by state and year (the level 2 intercepts), controlling for differences in other individual-level characteristics.

First, I estimate a random-intercept only model, with no independent variables (also known as the null model), to determine the variance between state-years in the racial disproportionality of prison admissions and parole revocation admissions (i.e., the odds that the person admitted to prison is black, and the odds that the admission is a parole revocation, respectively). Subsequently, level 1 measures (e.g. sentence length, offense type, sex, and age) are introduced in order to estimate the relationship between race and parole revocation within state and year, as well as to estimate the variation between state and year on each of the prison admission outcomes, controlling for individual characteristics. Next, level 2 variables (e.g. sentencing policies, population demographics, poverty rate) are introduced to estimate the relationship between state characteristics and the prison admission outcomes. The final models predicting the main dependent variable, the race of an offender, will test cross-level interactions between parole revocation at the individual level and state characteristics. Hypotheses 1 through 3 will be addressed with parole revocation as the outcome variable while Hypotheses 4 through 7 will be addressed with race as the outcome variable.

## IV. Findings

### *Descriptives and Bivariate Relationships*

Table 1 presents descriptive statistics for the final sample of individual and state variables. Table 2 presents the descriptive statistics for the individual variables by the outcomes, admission type (parole revocations vs non-parole revocations) and race (black vs non-black). The full sample is largely male (91%) and white (58%), with a fairly equitable distribution of person, drug, and property offenders. The descriptives based on the dependent variables display a similar demographic composition; both subsamples are also largely male, relatively young, and white. However, as attested to in the literature, parole revocation admissions are more likely to be the result a drug or property offense compared to new court commitments/probation revocations. Black offenders are more likely to be admitted to prison from a person or drug offense compared to non-black offenders. As predicted, black offenders are also more slightly more likely to be admitted to prison on a parole revocation compared to non-black offenders.

Table 3 presents a correlation matrix of all level 2 (state-level) variables included in the final models. The correlation matrix includes two state-level variables that serve as proxies for the level 1 dependent variables. The variable *black admissions* is the proportion of all admissions to state prisons that are black offenders while *total parole revocations* represents the proportion of all admissions to state prisons that are from parole revocations. The third variable *black to white parole revocations* measures racial disproportionality in parole revocations as the ratio of black parole revocations (as a proportion of total black admissions) to white parole revocations (as a proportion of total white admissions).

Total parole revocations is negatively and weakly correlated ( $r = -.145$ ) with proportion black prison admissions. However, disproportionality in parole revocations is positively, but weakly correlated ( $r = .157$ ) with black prison admissions. Black prison admissions and total parole revocations are each negatively correlated with admission year, indicating that racial disproportionality in prison admissions and parole revocation-admissions may have decreased over time.

State structural factors are related to both black admissions and total parole revocations. As predicted, percent black in the state population is strongly and positively related ( $r = .863$ ) with black admissions. Likewise, both the violent crime rate ( $r = .565$ ) and the poverty rate ( $r = .330$ ) are moderately and positively correlated with black admissions. Surprisingly, neither citizen conservatism nor the Republican governors are significantly related to black admissions. Total parole revocations are negatively and weakly related to percent black in the population ( $r = -.191$ ), and are positively and moderately correlated with percent Hispanic ( $r = .419$ ).

State sentencing policies and correctional practices are also correlated with black admissions and total parole revocations. For example, there is a weak but positive correlation for both truth-in-sentencing for violent offenders and presumptive guidelines with total parole revocations and black prison admission. Nonetheless, truth –in-sentencing for violent offenders is negatively correlated ( $r = -.110$ ) with racial disproportionality in parole revocation admissions. Percent of parolees under active supervision is also significantly and positively related to total parole revocations ( $r = .196$ ) but not significantly related to black prison admissions. Finally, proportion of conditional releases that are mandatory is positively but weakly correlated to both dependent variables ( $r = .097$  and  $r = .246$ ).

To summarize, some of these bivariate relationships are consistent with theoretically based predictions, but not all. The rate of parole revocation admissions is higher in states with sentencing reforms and active parole supervision. Moreover, the rate of parole revocations may be lower in states with larger black populations but higher in states with larger Hispanic populations. As expected, the proportion black prison admissions is greater in states with higher rates of racial disproportionality in parole revocations, violent crime, poverty, and the percent black in the population. However, contrary to current assumptions neither citizen conservatism nor presence of a Republican governor is significantly related in the predicted (positive) direction to black prison admissions.

#### *Analysis of Parole Revocation Admissions*

The first step in the multilevel analysis investigates the likelihood that an admission to prison is from a parole revocation versus a new court commitment, in order to address Hypotheses 1 through 3. First, I estimated the null (random intercept only) model to determine if there is significant variance in the use of parole revocations between states and over time. This null model (See Table 5) indicates there is significant variance between state-years in the odds that an admission to prison is a parole revocation. Next, I present the individual level (level 1) model to estimate the relationship between offender characteristics and the odds of a parole revocation admission. Finally, I included state level variables into the model to determine the relationship between state characteristics and the odds that an admission to prison is from parole revocations. In this model, I allow the slope for race (black vs nonblack) to randomly vary across states in order to test whether disparity in revocations varies by state-year. The variance components as well as the corresponding chi-square test confirm that race varies significantly by state-year (See Table 5).

Table 4<sup>5</sup> presents the final model predicting the odds that an admission to prison is a parole revocation. The level 1 fixed effects represent the relationship between these individual level factors and parole revocation admissions. These results confirm previous findings on the individual level factors that influence parole revocations (Petersilia, 2003). Most importantly, the individual effect of race (black) on the likelihood of being a parole revocation remains positive and significant controlling for other individual level factors. Specifically, the odds that an admission is a parole revocation are 1.4 times greater for black offenders than nonblack offenders. These results provide support for hypothesis 1, that controlling for extralegal and legal factors, black offenders are more likely to be admitted to prison on a parole revocation than nonblack offenders. Likewise, males are more likely to be admitted to prison on a parole revocation than females. Hispanic offenders are less likely to be admitted to prison on a parole revocation than white non-Hispanic offenders. Moreover, compared to property offenses, all of the offense type dummies except for unknown offense types are negatively related to the odds that a prison admission is from a parole revocation. Specifically, the odds that an admission is a parole revocation decreases by .30 for person offenses and .29 for drug offenses compared to property offenses. Thus, offenders whose most serious offense is a property or unknown crime rather than a person, drug, or other offense are more likely to be admitted to prison on a parole revocation.

The level 2 effects represent the relationship between state characteristics and parole revocation admissions (Table 4). Hypothesis 2 posited that parole revocation admissions increased over time, but the relationship between admission year and parole revocations is non-

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<sup>5</sup> The findings presented in Table 4 are the final run in a series of reduced models; the models were stable throughout the series so little is gained from reporting each model in Table 4. However, I explore any changes in interpretation from model to model in the Discussion chapter.

significant. This suggests that parole revocation-admissions were fairly stable from 1990 to 2009 when controlling for individual and state factors. Hypothesis 3 argued that mandatory releases rates would be positively related to parole revocation admissions. Contrary to this hypothesis, there is no evidence that states with a higher proportion of mandatory releases have higher rates of parole revocations. In fact, states with a higher proportion of releases from mandatory parole have fewer parole revocation admissions. Specifically, the odds of a parole revocation decrease by .46 for a 1 unit increase in proportion of all conditional releases that were mandatory.

Several other state characteristics also related to parole revocation admissions. States with higher black populations and lower Hispanic populations have higher rates of parole revocation admissions. As for the political determinants, states with a Republican governor have an increased rate of parole revocations but neither citizen conservatism nor poverty rates are significantly related to parole revocations. State sentencing policies and parole practices are also related to rates of parole revocations. Truth-in-sentencing for violent offenders and presumptive guidelines are both positively related to parole revocation admissions. The odds of revocation in states with presumptive guidelines is twice that of states without these guidelines ( $\text{Exp (B)} = 2.04$ ), while the odds of revocation increase by 38 percent in truth-in-sentencing states ( $\text{Exp (B)} = 1.38$ ). The percentage of the parole population on active supervision is also positively related to parole revocation admissions. Specifically, the odds of an admission is a parole revocation increases by two percent for a one percent increase in the parole population that is under active supervision. Lastly, racial disproportionality in conditional release (black to white ratio on conditional release) is negatively related to the odds of a parole revocation admission.

Although the final analysis of parole revocation admissions to state prison provide limited support for my hypotheses, the results also reveal several previously unexpected relationships. In sum, I found no support for hypotheses 2 and 3 but the most important prediction, hypothesis 1, remained significant when controlling for many individual and state characteristics. Congruent with hypothesis 1, black offenders are more likely to be admitted to prison on a parole revocation than white and Hispanic offenders, net of case characteristics and state differences that may influence this relationship. However, contrary to my predictions in hypothesis 2, parole revocations did not increasingly contribute to prison admissions over time and were actually fairly stable from 1990 to 2009. Moreover, states that use mandatory parole display lower rates of parole revocations, negating hypothesis 3. Although I did not find evidence that is consistent with these two hypotheses, there are many associations that I did not hypothesize, but that are consistent with the theoretical frameworks mentioned above. For example, state characteristics such as sentencing policies, intensity of parole supervision, and partisan politics are all positively related to parole revocation as an admission type to prison.

#### *Analysis of Racial Composition of Prison Admissions*

So far my results indicate that the odds of a parole revocation are significantly greater for black offenders, controlling for other individual and state characteristics. However, the main goals of this study are to assess if racial disproportionality in parole revocations contribute to racial disproportionality in prison admissions overall (hypothesis 7) and to explore the relationship between state structural factors, policies, parole practices and racial differences in prison admissions (hypotheses 4 through 6). In order to accomplish these goals, the next step of the analysis treats the race of an offender admitted to prison as the dependent variable (odds that an offender is black as compared to white or Hispanic). This analysis includes a fully specified



model with individual (level 1) and state (level 2) predictors. Similar to the parole revocation outcome model, I allow the slope for admission type—representing the relationship between race and revocation—to randomly vary across states. However, in contrast to the previous model, this analysis includes cross-level interactions between the effect of parole revocation at the individual level and my state level variables, in order to test if the relationship between parole revocation and race is contingent upon state characteristics.

Table 6 presents the final model of the individual level effects and state level effects, as well as the interaction between parole revocation at the individual level and state factors<sup>6</sup>. For the sake of clarity, I will refer to the level 2 effects in terms of racial disproportionality and the individual level effect of parole revocation (and the cross-level interaction with state characteristics) as the relationship between race and revocation and/or racial disparity in parole revocations. The null model displays that there is significant variance between states in the likelihood that an offender admitted to prison is black (See Table 7). The variance components for this null model are much larger than the parole revocation outcome model (1.11 and .53 respectively).

The level 1 models predicting race (black versus white or Hispanic) are not the main focus of the analysis, but the results are instructive about the relationship between offender race and the other individual level factors, including admission type. Race is significantly related to sex, age, offense type, and sentence length.<sup>7</sup> Black offenders are more likely to be male, slightly

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<sup>6</sup> The findings presented in Table 6 are the final run in a series of \ reduced models; I explore any changes in interpretation from model to model in the Discussion chapter.

<sup>7</sup> The level 1 effects of age and sex are non-significant using robust standard errors, suggesting that it may be appropriate to model these slopes as randomly varying. However, since these are control variables, and not theoretically predicted to vary, I opted to present the models shown in Table 6.

younger and more likely to be convicted of violent, drug, and other offenses versus property offenders. The odds that an offender is black are 1.4 times greater among those convicted of violent crimes, and 1.7 times greater among drug offenders, versus property offenders. Moreover, black offenders admitted to state prisons have longer sentences than nonblack offenders. Specifically, the odds that an offender is black increases by about six percent with a one percent increase in sentence length ( $\text{Exp}(B) = 1.06$ ).

The level 1 model operationalizes the dependent variable as the race of the offender, so the state-year intercepts represent racial composition of prison admissions. However, controlling for the percent black in the state population in level 2 allows me to interpret the dependent variable as racial disproportionality in prison admissions, in order to test hypotheses 4 through 7. The level 2 effects demonstrate that racial disproportionality is significantly related to state characteristics (See Table 6).

Interestingly, many of the measures of state structural and political characteristics are related to the racial composition of prison admissions but are not in the predicted direction of hypothesis 4. According to hypothesis 4, state social and political characteristics should be positively related to disproportionality in imprisonment. However, the percent black in the state population, is the only state structural factor that is positively related to the racial composition of prison admissions. Thus, as expected, states with larger African American population display higher odds of black prison admissions. In contrast, Hispanic populations have a negligible effect on the odds that an offender admitted to prison is black. The percent of the state population that is below the poverty line is negatively related to the odds that an offender is black. Specifically, the odds that an offender is black decreases by three percent for a one percent increase in the poverty rate. Equally important and contrary to my expectations, having a Republican governor

and higher citizen conservatism each decrease the odds that an admission to prison is a black offender. The odds that an offender is black decreases by 11 percent in states headed by a Republican governor ( $\text{Exp}(B) = .89$ ) while decreasing by 1 percent for a 1 point increase in citizen conservatism ( $\text{Exp}(B) = .99$ ) respectively.

In partial support of hypothesis 5, only one measure of state sentencing policies is significantly related to racial differences in imprisonment. Presumptive guidelines appear to exacerbate racial disproportionality in prison admissions. The odds that an offender is black increases by 73 percent in states with presumptive guidelines compared to states that do not have these guidelines. In contrast, truth-in-sentencing for violent offenders is unrelated to racial differences in prison admissions. Hypothesis 6 posited that the percent of parolees under active supervision would be positively related to disproportionality, but the results demonstrate no relationship between intensity of parole supervision and racial disproportionality in prison admissions. Congruent with hypothesis 7, racial disproportionality in parole revocation is positively related to racial disproportionality in prison admissions. A 1 unit increase of disproportionality in parole revocations double the odds that an offender is black, net of other state and individual characteristics.

Although it was not predicted in my set of hypotheses, I can speak to the changes over time in the racial differences of prison admissions based on this time series. My analysis indicates that racial differences in prison admissions decreased over time, so much so that the odds that an offender is black decreases by four percent for every year. Likewise, violent crime is not a significant predictor of the odds that an offender is black, which suggests that rather than crime rates directly, political and policy responses to crime predict racial differences in imprisonment. Moreover, even though the active supervision of parolees is unrelated, other state

parole practices are related to racial disproportionality in prison admissions. Racial disproportionality in parole revocations and in mandatory release rates each increase the odds that an offender is black. Specifically, the odds that an offender is black increases by 53 percent for a one unit increase in the proportion of conditional releases that are mandatory ( $\text{Exp}(B) = 1.53$ ) and by 41 percent for a one unit increase in the black to white conditional release ratio ( $\text{Exp}(B) = 1.41$ ) respectively.

The final stage of the analysis tests cross level interactions between parole revocation at the individual level and other state level characteristics (See Table 6). Markedly, the fixed effect of disproportionality in revocations remains even when controlling for the interaction of racial disproportionality in parole revocations with the individual relationship between parole revocation and race, net of other state characteristics. This finding provides additional support for hypothesis 7, that racial differences in parole revocation admissions are positively related to disproportionality in admissions overall.

There are also many interesting relationships between the interaction of parole revocation and state characteristics that are unanticipated in my hypotheses. In line with the new penology paradigm, the intensity of parole supervision at the state level moderates the relationship between parole revocation and race. Specifically, the positive effect of parole revocation increases by .002 with a 1 percent increase in percent of parolees under active supervision. Likewise, truth-in-sentencing policies appear to diminish the relationship between parole revocations and race but presumptive guidelines appear to strengthen the association. Substantively, this finding suggests that truth-in-sentencing policies may diminish the ability of parole revocations to perpetuate racial disproportionality but presumptive guidelines may exacerbate the use of parole revocations as a contributor to racial disproportionality. Neither proportion mandatory releases nor racial

disproportionality in conditional release moderate the relationship between parole revocations and race.

The structural, political, and crime characteristics of states also moderate the relationship between parole revocations and race. A lower percent black and higher percent Hispanic in the total population intensifies the relationship between parole revocations and race. Moreover, the relationship between parole revocation and race is contingent upon citizen conservative ideology; higher rates of citizen conservatism strengthen the relationship between parole revocations and racial disproportionality in imprisonment. Interestingly, the relationship between race and parole revocation is also conditional on the violent crime rate. Specifically, the positive association between parole revocation and the odds that an offender is black increases by two percent for a one violent crime increase per 1,000 persons in the state population.

Much like the parole revocation outcome models, the black outcome models produced support for some of my hypotheses, but not others. As predicted, racial disproportionality in parole revocations is positively related to racial disproportionality in prison admissions, which is consistent with hypothesis 7. I found only partial support for hypothesis 4 and 5 and no support for hypothesis 6. Thus, state structural and political characteristics are not all positively related to racial disproportionality; in fact many are in the opposite direction of my predictions, such as the poverty rate, citizen conservatism, and the presence of Republican governors. Moreover, neither the active supervision of parolees nor truth-in-sentencing reforms are directly associated with racial disproportionality in prison admissions as predicted in hypotheses 5 and 6. However, both of these policies/practices do appear to condition the relationship between parole revocation and race within states.

## V. Discussion

The aim of this study was to further understanding of parole revocations in explaining racial disproportionality in imprisonment. Specifically, I examined whether racial differences in parole revocations exist within states, controlling for individual characteristics and state differences, and if these differences are positively related to differences between states and over time in racial disproportionality of prison admissions. I also investigated the extent to which racial disproportionality in imprisonment is related to state structural and political characteristics, policy choices, and how these predictors may condition the relationship between parole revocation and racial differences in imprisonment. Lastly, I assessed the relationship between the state characteristics and parole revocation admissions to prison. To my knowledge, this thesis is the first to systematically address state variation in the use of parole revocations and how this correctional practice contributes to racial differences in prison admissions. As a result, the findings offer new insights into a largely unexplored realm of the correctional process and challenge some common assumptions about parole revocations and racial disproportionality in imprisonment.

To summarize, the results of this study suggest that racial disparity in the odds of parole revocations exist within states and that state differences in the use of parole revocations partially explain racial disproportionality in prison admissions. Likewise, congruent with my predictions, states with larger black populations and states with presumptive sentencing guidelines have increased odds that an offender admitted to prison is black. However, rebutting current assumptions and my predictions, Republican party strength, poverty rates, and citizen conservatism appear to mitigate racial disproportionality in imprisonment. Violent crime, the intensity of supervision, and truth-in-sentencing reforms are not directly related to racial

disproportionality in imprisonment but they each condition the relationship between parole revocation and race (an observation that would have gone unnoticed had I not used multilevel modeling). Finally, over time parole revocations as admissions to prison were stable and are actually less likely to occur in states that use mandatory parole.

### *Parole Revocations and Racial Disproportionality in Prison Admissions*

The most important finding of this study is that parole revocations contribute to the racial disproportionality of state prisons. States with higher racial disproportionality in parole revocation admissions display greater racial differences in prison admissions overall. This is evident both within states, and between states. However, in a reduced model (not shown), the racial disproportionality in conditional releases also significantly predicted racial disproportionality in prison admissions but once you incorporate racial differences in revocations, racial disproportionality in conditional release is no longer a significant predictor. This suggests that disproportionality in revocations mediates the relationship between disproportionality in conditional release and racial disproportionality in prison admissions. Thus, even though disproportionality in revocations is the more direct mechanism, disproportionality in conditional release is also an important consideration in understanding racial disproportionality in prison admissions. This relationship occurs not just in the state aggregate but at the individual level as well. Specifically, black individuals are more likely to be admitted to prison on a parole revocation even when controlling for the state jurisdiction and individual characteristics. Although this finding does not say definitively that race is a determining factor in parole revocations; it does appear to be an important predictor of parole revocations.

Evidence suggests that the percentage of state prison admissions that were parole revocations more than doubled from 1980 to 1999 (Hughes, Wilson, and Beck, 2001), but I find

that parole revocations appear to be a stable source of entry into state prison systems from 1990 to 2009. Thus, my future analyses will test for period specific effects to see if the direction of this relationship changes from 1990 to 1999 and 2000 to 2009 respectively. Despite evidence that mandatory parole release is associated with diminished success on parole at the individual-level (Petersilia, 2003), states with higher rates of mandatory parole release are associated with lower rates of parole revocation admissions to prison. Since states often have multiple release structures, perhaps the abolition of discretionary parole (determinate sentencing) results in higher rates of unconditional release as well (i.e. more offenders complete their sentence in prison). Unconditional release rates would be negatively associated with parole revocations because there are fewer “parolees” to be revoked and new court commitments would be the singular path for an offender to reenter the penal system.

#### *State Characteristics and Racial Disproportionality in Prison Admissions*

My analysis also demonstrates that state factors are related to racial disproportionality in imprisonment. First, the evidence suggests that racial disproportionality in prison admissions diminished over time. Many states began to reduce their state prison populations during this time, so much so that the states’ average increase in imprisonment dropped from a mean increase of 131 prisoners per 100,00 residents in the 1990s to 28 in the 2000s (Phelps and Pager, 2015). This move toward deincarceration could also ameliorate racial differences in imprisonment but further exploration is needed to see if our prison system is reducing the stark racial differences in imprisonment produced by the prison boom.

Moreover, this could also be the result of a decline in parole revocations as admissions to prison in the mid to late 2000’s. Some descriptive evidence during a small segment of my time period supports this notion. Specifically from 2006 to 2011, parole revocation admissions



decreased by 31 percent (BJS, 2012). Of course, this evidence is a small segment of my time period, and I need more evidence of period specific relationships with parole revocation admissions to determine if this is truly the case. I tested for a non-linear relationship in parole revocation admissions over time employing year-squared in initial models (not shown) but found no support for this type of association.

Social forces play an important role in understanding the rise of mass incarceration but the results of this study deviate extensively from the other findings. For example, the poverty rate is negatively related to racial differences in prison admissions in this study. This finding could be the result of using the total poverty rate instead of race-specific measures of poverty (Bridges and Crutchfield, 1988) or modeling the ratio of black to white prison admissions rather than separately modeling the outcome of each race (Heimer et al, 2012). The total poverty rate may act as an equalizer of punishment, in that poor white and poor minorities alike may be more susceptible to imprisonment than their more affluent counterparts. This logic is congruent with Bruce Western's (2006) discovery that the most substantial inequities produced by mass imprisonment (failing marriage rates and income gap) separate impoverished blacks from middle class blacks most substantially, rather than the inequality between whites and blacks overall.

My findings also suggest that states with Republican governors and higher rates of citizen conservatism have lower levels of racial disproportionality in prison admissions. Others studies have found either that states with Republican governors exacerbate racial disproportionality in imprisonment (Yates and Fording, 2005) or find no relationship at all (Keen and Jacobs, 2009). Likewise, previous research finds a similar relationship (Keen and Jacobs, 2009), or lack thereof (Yates and Fording, 2005), between citizen conservatism and racial disproportionality in imprisonment. Thus, my results complicate the common narrative that Republicans' often

racially coded “get tough on crime” strategies perpetuate racial inequities in imprisonment. Recent work examining the role of liberal politics of the 1940’s and 1950’s on the expansion of the federal system also challenges this assumption (Murakawa, 2014). Another important political consideration is that decreases in imprisonment rates during the 2000’s are often highest in states with diminished fiscal capacities (Phelps and Pager, 2015). Thus, this negative relationship between conservatism and racial disproportionality may be mediated by diminishing state budgets. State revenues could no longer substantiate a booming carceral system, leading to a decrease in imprisonment rates and perhaps in disproportionality as well. Recently, influential conservatives of the “Right on Crime” movement have framed the issue of mass incarceration as a budgetary issue, claiming that “Conservatives are known for being tough on crime, but we must also be tough on criminal justice spending (Right on Crime website).” Essentially, the political determinants of punishment and its influence on racial inequality in the United States are evolving and we need more empirical research examining these changes as well as our possibly specious but nonetheless established assumptions.

Research to date has yet to find a definitive relationship between sentencing policies and racial disproportionality in imprisonment (Carroll and Cornell, 1985; Yates and Fording, 2005; Heimer et al, 2012). I find that states with presumptive guidelines exhibit increased rates of racial disproportionality in their prison admissions compared to those without presumptive guidelines. This is unexpected considering that presumptive sentencing guidelines developed to reduce judicial discretion by requiring a judge to stay within a prescribed range of sentencing options. Moreover, another general reason behind the use of presumptive sentencing guidelines was to control for prison overcrowding (Marvell and Moody, 1996). Thus, this attempt to curtail discretion and prison growth may actually perpetuate racial inequality in revocations and prison

admissions overall rather than serve as buffer to it. This finding is puzzling considering that studies of overall imprisonment rates find presumptive guidelines, or the combination of presumptive guidelines and determinate sentencing decrease imprisonment rates (Stemen et al, 2005; Stemen and Rengifo, 2011). My findings suggest sentencing reforms that appear to decrease imprisonment rates overall may not have the same implications for racial disproportionality in imprisonment. There is at least one theoretical argument that might explain this relationship. According to new penology, this sentencing reform's purpose of increasing the predictability of sentencing could have serious repercussions for minorities. Specifically, they are no longer individuals but aggregates, tied to specific categories on a guideline matrix of criminal history and offense seriousness that may implicitly disadvantage minorities. However, there are only three states in my sample with presumptive guidelines so subsequent research needs to explore the role of sentencing reforms further with a larger sample of states.

Consistent with the predictions of the new penology, states with high levels of active supervision of parolees intensify racial differences in prison admissions. Thus, parole's role as a tool of surveillance and risk management may actually exacerbate racial differences in prison admissions. However, I interpret this finding with uncertainty due to the possible lack of construct validity of this measure. Active supervision is defined in the Annual Parole Surveys as parolees who are "required to regularly contact a supervisory parole authority in person, by mail, or by telephone (APS Codebook, 2007)." One could argue this measure is not reflective of the techniques of intense surveillance and detection described by Feeley and Simon (1992) but rather just a certain form of conditional release. However, this is the closest measure of a supervision technique that I could find for the time period and states I use in my sample. I wish to further

explore the new penology paradigm by examining measures of the techniques of the new penology such as electronic monitoring and intensive supervision in a future analysis.

Although mandatory parole is often associated with less successful chances on parole at the individual-level (Petersilia, 2003), this relationship does not appear to apply to the state level as displayed in the parole revocation outcome model. In fact, revocations are lower in states with higher rates of mandatory parole release. However, states with higher rates of mandatory parole releases also display higher rates of racial disproportionality in prison admissions. The meaning of these two findings is quite ambiguous based on the predictions of the new penology perspective and previous research on parole success. Even though mandatory release is negatively related to parole revocations, it contributes to racial disproportionality in prison admissions, but this of course could be a reflection of the release structure in that blacks may just be more likely to be released to mandatory parole in general. Thus, I do not wish to overstate these relationships because the components of sentencing policies and release mechanisms, as well as their subsequent application, vary substantially across jurisdictions making it nearly impossible to capture all this variation with a single theoretical paradigm. Likewise, the creators of the new penology delineate it as an “interpretive net” (Feeley and Simon, 1992, p.460) that may bring coherence to some of the recent developments in the realm of punishment. So far the findings of this study suggest that the net of the new penology does “catch fish” (Feeley and Simon, 1992: p. 460) and this becomes even more apparent in the contributions of state characteristics to the relationship between parole revocations and racial disproportionality in prison admissions.

*Interaction of State Predictors and Parole Revocations with Racial Disproportionality*

Whereas the violent crime rate is unrelated to racial disproportionality in prison admissions, the relationship between parole revocation admissions and racial differences in imprisonment appears to be contingent upon violent crime. Specifically, the relationship between parole revocation and racial disproportionality in imprisonment is stronger in states with elevated violent crime rates. States with heightened levels of violent crime may experience political or social upheavals that in turn influence the parole revocation process and diminish its ability to remain equitable across race.

Interestingly, citizen conservative ideology, but not Republican governors, strengthen the relationship between parole revocation and racial disproportionality in prison admissions. Whether this is a reflection of the nature of the parole revocation process itself or an artifact of omitted variable bias remains to be seen. Perhaps the department and officials who conduct parole revocation hearings are less insulated from the influence of political pressures of citizens. According to a census of parole supervisory agencies, parole revocation decisions are mainly made by a parole board or a combination of the supervisory agency such as the department of corrections and a parole board (BJS, 2006). In some states parole boards are more autonomous from the state governors while others are governor appointments but parole agencies and boards varying autonomies from the political process warrant further exploration before we can interpret this finding with more confidence.

As for sentencing reforms, truth-in-sentencing laws appear to mitigate the relationship between parole revocation and racial disproportionality. These laws developed in many states after the passage of The Violent Crime and Law Enforcement Act of 1994 and only 10 states in my sample do not have this law from 1990 to 2009. This federal law distributed funds for prison

construction and expansion to any state that would place a requirement of violent offenders to serve 85 percent of their total sentence (Piehl and LoBuglio, 2005). It could be that these laws bring more equity to the release process, which in turn influences the relationship between parole revocation and racial differences in prison admissions, which would contradict the predictions of the new penology<sup>8</sup>.

In contrast with truth-in-sentencing, states with presumptive guidelines display a bolstered connection between parole revocation and racial disproportionality. Again, this finding is exploratory and a result of only three states, one of which (Michigan) only has these laws for half of the time period examined. Subsequent research should explore further the interaction between these sentencing reforms and parole revocations to see if these findings are robust. Likewise, although it is beyond the ascribed goals of this study, we still know very little about the influence of other sentencing policies such as voluntary guidelines, presumptive sentences, and mandatory minimums and how these policies may interact with other key decisions in the criminal justice system (plea bargaining, sentencing, release) on racial disproportionality in imprisonment.

#### *Other Limitations and Directions for Future Research*

The analysis and data of this study have several limitations that must be addressed. The first concerns the operationalization of my dependent variables. Since I am using prison admissions rather than incarceration rates, I am only truly examining the flow of prisoners into state prison. Therefore, I am unable to account for time served in prison which could influence racial disproportionality in imprisonment (Bradley and Engen, 2016). Subsequent studies could

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<sup>8</sup> There is some indirect evidence for this in the cross-level interaction of the parole revocation outcome model (not presented here but available upon request) which significantly diminished the effect of the black slope on the intercept.

incorporate the NCRP term records that include an individual identifier for each event of admission and release from prison to explore this issue of further.

The relationships presented in this study could also be the result of omitted variable bias. For example, I can't account for differences in enforcement and prosecution which is also tied to prison admissions. Likewise, although I was able to account for the maximum offense a prisoner was convicted of upon admission to prison, I am unable to account for criminal history directly<sup>9</sup>. This is a limitation considering that criminal history could be another individual level contributor to racial differences in imprisonment and parole revocations as well. Specifically, Steen and Opsal (2007) found that offenders with prior felony incarcerations are 121% more likely to have their parole revoked for a new offense and 80% more likely to have their parole revoked for technical violations.

Many states in the NCRP do not reliably report the violation type of a parole revocation. Thus, I am unable to disaggregate revocations to determine if the revocation is the result of a technical violation, a new criminal offense, or a combination of the two. This is a limitation considering that technical violations of parole are an important aspect of the new penology account and there is some evidence that these violations are influenced by race (Steen and Opsal, 2007). Moreover, my measure of offense type only accounts for the most serious offense for which the individual was originally admitted to prison, but is unable to account for the offense committed if the violation was a new offense. There is evidence to suggest that new offenses and technical violations are both more likely for black offenders (Steen and Opsal, 2007) and that the type of violation interacts with offense type by race (Steen and Opsal, 2007; Lin et al, 2010).

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<sup>9</sup> Although this should be partially/indirectly controlled for by my sentence length variable in that a substantial criminal history typically translates into a lengthy sentence.

Thus, the violation type is important to uncover if racial differences in offending mediate the relationship between parole revocations and race. However, it is worth mentioning that while race differences in arrest for violent crime (but not drug and property crime) correspond closely to racial differences in imprisonment from 1980 to 1990, this same relationship does not hold true for the first decade of the millennium. In the 2000's, racial differences in arrest did not mirror the racial composition of imprisonment for drug, property, and violent crimes (NRC, 2014).

Two other missing variables in this analysis may be key components to understanding racial disproportionality in imprisonment, the urban concentration of minorities and racial threat. Due to the constraints of measuring these trends over time, I am unable to incorporate a measure of urban concentration of minorities which is an important predictor in the literature of racial disproportionality (Bridges and Crutchfield, 1988; Heimer et al, 2012). This omitted variable is so important that one pair of researchers posit that it explains regional variation of racial disproportionality in imprisonment (Sorensen, Hope, and Stemen, 2003). As it pertains to my specific research questions, prisoner reentry is concentrated in a few states, specifically, in core (metropolitan) counties. For example, two-thirds of the 500,000 releases in 1996 were to core counties (Lynch and Sabol, 2001). As a result, the majority of reentry occurs in a few select urban areas, which presumably further diminishes impoverished inner-city neighborhoods already marginal resources. Thus, in these inner-city neighborhoods where there is typically a heightened minority presence, there may be more parole revocations. Consequently, the relationship between parole revocations and racial disproportionality in imprisonment may be contingent upon the urban concentration of minorities. Thus, future studies of racial disproportionality could include the urban concentration of minorities to explore its role in the



context of parole revocations or other criminal justice decisions on racial disproportionality in imprisonment. Likewise, violent and drug crime is concentrated in minority and impoverished urban communities so race-specific measures of these crimes could also prove fruitful in studies of racial disproportionality (Wilson, 1987; Ulmer, Harris, Steffensmeier, 2012).

The racial/minority threat hypothesis is another unexplored avenue in this research. Studies of racial disproportionality in imprisonment typically examine race-specific rates (prison admissions/population) and/or the ratio of race-specific imprisonment rates. Since I am unable to control for the proportion black in the population in my dependent variable, I control for the proportion black in the population as an independent variable. The disadvantage of this is that I cannot interpret the effect of percent black as representing racial threat. The typical linear racial threat argument does not hold in studies of racial disproportionality like overall imprisonment rates, in fact some studies have found that larger African American populations are negatively related to racial discrepancies in imprisonment (Bridges and Crutchfield, 1988; Yates and Fording, 2005). Recent work by Keen and Jacobs (2009) suggests that a curvilinear effect between minority populations and racial disproportionality exists once you control for expansion of black populations in the Deep South. These authors posit that African Americans political clout in non-Confederate states works to reverse policies that may exacerbate racial disproportionality in imprisonment. Thus, scholars need to explore further the relationship between minority threat and racial disproportionality in imprisonment and its contingency upon the South.

## **VI. Conclusion**

Whether mass incarceration in the United States is a modern iteration of a racial caste system (Alexander, 2010) or a reflection of a culture of control that progressed unhinged

(Garland, 2001), there is little doubt that its consequences fell mainly on impoverished minorities and their communities. Research up to this point delineates that states vary widely in the racial disproportionality of their prisons and that the political and social characteristics of states may exacerbate racial differences. Nonetheless, we still know very little about the specific correctional practices and policy choices that contribute to this system of stratification. This study suggests that correctional practices such as parole revocations contribute to racial disproportionality in imprisonment, but is unable to determine if parole revocations are the mediator between structural forces and racial differences in imprisonment. However, it does appear as though the relationship between parole revocation and race is contingent upon state characteristics such as population demographics, citizen conservatism, sentencing policies, and the intensity of parole supervision. Therefore, research on mass incarceration should continue to explore the correctional mechanisms by which social forces such as minority threat and partisan politics are expressed.

A final concern involves issues of fragmentation within state criminal justice systems. Garland (2013) argues that these “systems” are not a fully-realized whole but rather the intertwinement of various organizations with their own versions of discretion, decision-making structures, internal autonomies, and autonomies from outside forces (Garland, 2013). Parole revocation and release decisions vary substantially from state-to-state and within the parole supervisory institutions there are various actors and workgroups that contribute to this sole decision in a broader correctional system. Much of the current research on racial disproportionality and imprisonment, and on overall imprisonment rates, focus solely on structural or policy characteristics and ignore the various intra-institutional processes through which these characteristics are translated. Future research needs to focus on identifying the direct

mechanisms that may produce and perpetuate racial disproportionality in imprisonment through both quantitative and qualitative means. Ultimately, scholars need to examine the intersection of the social forces and penology in order to inform better correctional policies and practices in order to bring an end to the epoch of mass imprisonment in the United States.

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Table 1. Descriptive Statistics for Final Sample					
Individual Level Variables (N = 6201189)			State Level Variables (N = 443)		
	M	SD		M	SD
Male	.91	.29	Black to White Parole Revocations	1.29	.26
Age	32.46	9.50	Percent Black	11.71	9.53
Black	.42	.49	Percent Hispanic	7.49	8.88
Hispanic	.21	.41	Poverty Rate	13.46	3.47
Parole Revocation	.42	.49	Violent Crime Rate	4.75	2.28
Person Offense	.29	.46	Black to White Conditional Release	.99	.07
Drug Offense	.33	.47	Citizen Conservatism	52.41	11.48
Property Offense	.30	.46	Republican Governor	.58	.49
Other Offense	.06	.23	Truth in Sentencing (Violent)	.47	.50
Unknown Offense	.01	.11	Presumptive Guidelines	.11	.31
Sentence Length (ln)	3.94	.85	Proportion Mandatory Releases	.18	.31

	Black Offenders (N = 2618297)		Non-Black Offenders (N = 3582892)			Parole Revocations (N = 2595714)		Non-Parole Revocations (N = 3605476)	
	M	SD	M	SD		M	SD	M	SD
Male	.91	.29	.90	.30	Male	.92	.27	.89	.31
Age	32.10	9.50	32.70	9.60	Age	34.20	8.80	31.20	9.80
Parole Revocation	.43	.50	.41	.49	Black	.43	.50	.42	.49
Person Offense	.31	.46	.28	.45	Hispanic	.23	.42	.20	.40
Drug Offense	.38	.49	.29	.46	Person Offense	.27	.45	.31	.46
Property Offense	.27	.44	.33	.47	Drug Offense	.33	.47	.33	.47
Other Offense	.03	.16	.08	.27	Property Offense	.34	.47	.28	.45
Unknown Offense	.01	.10	.01	.12	Other Offense	.04	.19	.07	.25
Sentence Length (ln)	4.04	.83	3.87	.83	Unknown Offense	.02	.13	.01	.09
					Sentence Length (ln)	3.86	.83	4.01	.86

Table 3. Correlation Matrix of Level 2 Variables (N = 443)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Black Admissions	1.00														
2. Total Parole Revocations	-.145**	1.00													
3. Black to White Parole Revocations	.157**	-.235**	1.00												
4. Admission Year	-.116*	.043	.110*	1.00											
5. Percent Black	.863**	-.191**	.111*	.031	1.00										
6. Percent Hispanic	-.080	.419**	-.050	.166**	-.107*	1.00									
7. Black to White Conditional Release	.163**	-.150**	.189**	-.045	.135**	-.093*	1.00								
8. Violent Crime Rate	.565**	.102*	-.026	-.287**	.607**	.278**	.000	1.00							
9. Poverty Rate	.330**	-.102*	.030	-.288**	.469**	-.182**	.160**	.454**	1.00						
10. Republican Governor	-.082	.154**	-.121*	.069	-.044	.119*	-.221**	-.057	-.065	1.00					
11. Citizen Conservatism	-.066	-.122*	.058	-.195**	.120*	-.180**	-.149**	-.023	.143**	.044	1.00				
12. Truth in Sentencing (Violent)	.198**	.128**	-.100*	.278**	.339**	.060	-.027	.147**	.262**	.079	.087	1.00			
13. Presumptive Guidelines	.114*	.170**	.036	.057	-.129**	-.174**	-.038	-.123**	-.182**	-.024	-.264**	-.083	1.00		
14. Percent Active	.054	.196**	.001	-.009	.014	-.107*	.102*	-.106*	-.057	-.098*	.119*	.122*	.040	1.00	
15. Proportion Mandatory Releases	.097*	.246**	-.012	.095*	-.097*	.443**	.031	.042	-.261**	.063	-.276**	.096*	.224**	.290**	1.00

\*p<.05 \*\*p<.01

Table 4. Final Hierarchical Logistic Model Predicting Parole Revocation-Admission

<i>Level 1 Fixed Effects</i>	B	S.E.	Odds Ratio
Intercept	-1.12**	.03	--
Male	.45**	.003	1.57
Age	.03**	.0001	1.03
Black	.37**	.01	1.45
Hispanic	-.22**	.003	.80
Person Offense	-.50**	.002	.61
Drug Offense	-.34**	.002	.71
Other Offense	-.80**	.005	.45
Unknown Offense	.53**	.008	1.70
Sentence Length (ln)	.15**	.001	1.16
<i>Level 2 Fixed Effects</i>			
Admission Year	-.01	.01	.99
Percent Black	-.03**	.01	.97
Percent Hispanic	.04**	.01	1.04
Violent Crime Rate	.01**	.02	1.01
Black to White Conditional Release	-1.05**	.41	.35
Poverty Rate	.01	.01	1.01
Citizen Conservatism	-.01	.003	1.00
Republican Governor	.16**	.06	1.17
Truth in Sentencing (Violent)	.32**	.07	1.38
Presumptive Guidelines	.72**	.10	2.04
Percent Active	.02**	.002	1.02
Proportion Mandatory Releases	-.61**	.12	.54

\*p&lt;.05 \*\*p&lt;.01

Table 5. Variance Components for Parole Revocation Models				
	Variance	df	$\chi^2$	Variance Explained
<i>Null Model</i>				
Intercept	.53**	442	1604888.5	--
<i>Level 1 Only Model</i>				
Intercept	.60**	442	1691211.4	-13%
Black	.04**	442	6779.7	--
<i>Final Model</i>				
Intercept	.33**	430	377837.2	37%
Black	.03**	430	4875.2	25%

\*p<.05 \*\*p<.01

Table 6. Final Hierarchical Logistic Models Predicting Racial Composition of Prison Admissions

<i>Level 1 Fixed Effects</i>	B	S.E.	Odds Ratio
Intercept	-.47**	.02	--
Male	.02**	.003	1.02
Age	-.001**	.0001	.99
Parole Revocation	.38**	.01	1.47
Person Offense	.36**	.002	1.43
Drug Offense	.54**	.002	1.71
Other Offense	-.78**	.01	.46
Unknown Offense	.07**	.009	1.07
Sentence Length (ln)	.06**	.001	1.06
<i>Level 2 Fixed Effects</i>			
Admission Year	-.04**	.005	.96
Percent Black	.10**	.004	1.10
Percent Hispanic	.00004	.004	1.00
Violent Crime Rate	.01	.01	1.01
Black to White Conditional Release	0.34	.32	1.41
Poverty Rate	-.03**	.008	.97
Citizen Conservatism	-.01**	.002	.99
Republican Governor	-.11*	.05	.89
Truth in Sentencing (Violent)	.02	.05	1.02
Presumptive Guidelines	.55**	.08	1.73
Percent Active	.001	.002	1.00
Proportion Mandatory Releases	.44**	.09	1.53
Black to White Parole Revocations	.69**	.09	2.00
<i>Cross Level Interactions</i>			
Year*ParoleRev	-.002	.001	1.00
PctBlack*ParoleRev	-.01**	.001	.99
PctHisp*ParoleRev	.01**	.001	1.01
Violent*ParoleRev	.02**	.04	1.02
BWConRel*ParoleRev	-.06	.09	.94
Poverty*ParoleRev	-.001	.002	.99
CitCons*ParoleRev	.002**	.001	1.00
GOPGov*ParoleRev	.02	.01	.89
TIS*ParoleRev	-0.04**	.01	.96
PG*ParoleRev	.08**	.02	1.08
Active*ParoleRev	.002**	.0004	1.00
Mandatory*ParoleRev	-.04	.02	.96
BWParoleRev*ParoleRev	.80**	.03	2.22

\*p&lt;.05 \*\*p&lt;.01

Table 7. Variance Components for Race Models				
	Variance	df	$\chi^2$	Variance Explained
<i>Null Model</i>				
Intercept	1.11**	442	586871.3	--
<i>Level 1 Only Model</i>				
Intercept	1.10**	442	468043.4	.01%
Parole Revocation	.04**	442	7305.6	--
<i>Population Demographics Only Model</i>				
Intercept	0.37**	440	148665.4	67%
Parole Revocation	0.04**	440	6337.6	0%
<i>Final Model</i>				
Intercept	0.20**	429	117960.7	82%
Parole Revocation	.01**	429	2221.8	75%

\*p<.05 \*\*p<.01



Appendix A: State Representation by Year (1990-2009)

State	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Alabama	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Arkansas	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X
California	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Colorado	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Georgia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	
Iowa	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Kentucky	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Louisiana			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Michigan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	
Minnesota	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Missouri	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Nebraska	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X
Nevada	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
New Hampshire	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
New Jersey	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
New York	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pennsylvania	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
South Carolina	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
South Dakota		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Texas	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Utah	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
Virginia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
West Virginia		X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Wisconsin	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

(X represents year present, gray box represents year not present)

## Appendix B: Year Selection Criteria for Final Admissions Sample

One specific example of year selection criteria is that Alabama reports no parole revocations as admissions for 2005 but in every other year it reports parole revocation-admissions ranging from 643-1471 cases. There are several examples of unreliable reporting years for many states that were selected out of the final data set: 2009 in Georgia, 1991 and 1992 in Kentucky, 2004 and 2005 in Nebraska, 2007 in Nevada, 1991, 2007, 2008, and 2009 in Texas, as well as 1990 to 1993 in West Virginia. Arkansas, Georgia, Kentucky, Louisiana, Michigan, New Hampshire, New Jersey, South Dakota, Utah, and Wisconsin all have at least one but no more than 4 years where they did not report any prison admission data to NCRP.

## Appendix C: State Sentencing Guidelines in Final Sample (Year Enacted)

(Source: Harmon, 2008)

STATE	Presumptive Guidelines	Determinate Sentencing	Truth-In-Sentencing
Alabama	-	-	-
Arkansas	-	-	-
California	-	1976	1994
Colorado	-	79-85	-
Georgia	-	-	1995
Iowa	-	-	1996
Kentucky	-	-	-
Louisiana	-	-	-
Michigan	1999	-	1994
Minnesota	1980	1982	1993
Missouri	-	-	1994
Nebraska	-	-	-
New Hampshire	-	-	-
New Jersey	-	-	-
New York	-	-	1995
North Dakota	-	-	1995
Pennsylvania	1982	-	1991
South Carolina	-	-	-
South Dakota	-	-	1996
Texas	-	-	-
Utah	-	-	1985
Virginia	-	1995	1995
West Virginia	-	-	-
Wisconsin	-	-	1999

#### Appendix D: State-Years Interpolated for Level 2 Independent Variables

Proportion mandatory releases and black to white disparity in conditional release are interpolated for the following states and years: California in 2003, Minnesota in 2008, Missouri in 2004, Nebraska in 2006, Nevada from 2008 to 2009, New Jersey from 1990 to 1992, Texas in 1990 and 1992, and Virginia in 2009. In addition, the percent of parolees under active supervision (from Annual Parole Surveys) is missing, and therefore interpolated, for all states in 1991 that are not already missing this year in the admission files, and for these additional state-year combinations: Alabama in 1992 and 1993, California in 1993, Iowa in 2007, Nevada in 1996 - 1997 and 2003, New Hampshire from 1999 to 2005, as well as New Jersey in 1999.