The Relationship Between Mass Incarceration and Crime in the Neoliberal Period in the United States

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THE RELATIONSHIP BETWEEN MASS INCARCERATION AND CRIME IN THE NEOLIBERAL PERIOD IN THE UNITED STATES

A Dissertation Presented

By

Geert Leo Dhondt

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of Doctor of Philosophy

September 2012

Department of Economics
THE RELATIONSHIP BETWEEN MASS INCARCERATION AND CRIME IN
THE NEOLIBERAL PERIOD IN THE UNITED STATES

A Dissertation Presented

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Geert Leo Dhondt

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ACKNOWLEDGMENTS

This dissertation marks the end of my decade as a graduate student, a decade roughly marked by the anti-globalization movement, which inspired me to study economics, and the current Occupy Wall Street movement, which I now come to armed with the tools I sharpened in graduate school. Reflecting back on my eight years spent in and around Thompson Hall, and acknowledging all those who inspired me, helped me, and kept me sane during that time, is a daunting task. I will surely forget to mention some people.

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lot. I took more classes with him than with any other professor and enjoyed them immensely; one of the intellectual high points of my time at UMass is the class I took with him on C.L.R. James, one of the most important Marxists of the 20th century and whose work strongly influences the way I think about the world. John Bracey, along with others at the New Africa House, gave me a second home. The first time I met Arjun Jayadev was when I walked late into my first allocation meeting, and I was surprised because he already knew my name. Arjun helped me with a countless number of things during my time at UMass, from making us brand-new graduate students feel comfortable in a new place by learning our names before we arrived, to making sure I finished my dissertation, which would not have happened without him.

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During my time as a graduate student, I also discovered and developed a love of teaching. I spent five years teaching in the Social Thought and Political Economy (STPEC) program at UMass, two years as a teaching assistant in the Economics Department, one year leading my own classes in the Economics Department, one year as
an instructor at Massachusetts College of Art, and now three years at John Jay College. My students have taught me so much about teaching, and about economics, history, and politics. And, since I taught about prisons in many of my classes, they also contributed to this dissertation. I feel very lucky to still be in touch with many of them. I would like to thank them all, but particularly Amy, Dion, Aaron, Barak, Sarah B., Chris S., Kathleen, Shaun, Caleb, Emily R., Sara B., Cloee, Rebecca, Alex K., Emilene, Sohini, Kindred, Maya, Shanelle, Simone, Sherizma, Ishani, Robert, Stefan, Bart, Habibatou, Lafern, Delano, Ray, Ashley, Navi, Kendra, Carlos, Anna, Carmen, Bethany, Dorothy, Nicole, Ryan, Gessel, and Lisle.

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While at UMass, I was involved with various political groups both locally and nationally. This work helped me focus, kept me sane, and hopefully kept parts of this dissertation relevant to social movements. Of people I met through these groups, I would especially like to thank Dave, John P., Mike, Emily, Pete, Taryn, Ceci, Katie, Alan, Esther, Chiino, and Stickii.

While this dissertation is about mass incarceration, the first article I ever wrote on prisons was with Freja and Jenny. I would like to thank them for their friendship over all these years, as well as Crystal, Randall, Jake, and Scott.

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ABSTRACT

THE RELATIONSHIP BETWEEN MASS INCARCERATION AND CRIME IN THE NEOLIBERAL PERIOD

IN THE UNITED STATES

SEPTEMBER 2012

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Overview

The United States prison population has grown seven-fold over the past 35 years. This dissertation looks at the impact this growth in incarceration has on crime rates and seeks to understand why this drastic change in public policy happened.

Simultaneity between prison populations and crime rates makes it difficult to isolate the causal effect of changes in prison populations on crime. This dissertation uses marijuana and cocaine mandatory minimum sentencing to break that simultaneity. Using panel data for 50 states over 40 years, this dissertation finds that the marginal addition of a prisoner results in a higher, not lower, crime rate. Specifically, a 1 percent increase in the prison population results in a 0.28 percent increase in the violent crime rate and a 0.17 percent increase in the property crime rate. This counterintuitive result suggests that incarceration, already high in the U.S., may have now begun to achieve negative returns.
in reducing crime. As such it supports the work of a number of scholars (Western 2006, Clear 2003) who have suggested that incarceration may have begun to have a positive effect on crime because of a host of factors.

Most of the empirical work on the question is undertaken at an aggregate level (county, state, or national data). Yet, criminologists (Sampson et al. 2002, Spelman 2005 and Clear 1996, 2007) have long argued that the complex intertwining of crime and punishment is best understood at the neighborhood level, where the impacts of incarceration on social relationships are most closely felt. This dissertation examines the question using a panel of neighborhoods in Tallahassee, Florida for the period 1995 to 2002. I find evidence to support the contention that the high levels of prison admissions and prison cycling (admissions plus releases) is associated with increasing crime rates in disadvantaged neighborhoods. This effect is not found in other neighborhoods. Looking more closely at the issues of race and class, I find that while marginalized neighborhoods experience slightly higher crime rates, they are faced with much higher incarceration rates. In Black neighborhoods in particular, prison admissions are an order of magnitude higher in comparison with non-Black neighborhoods even though underlying crime rates are not very different.

If incarceration does not lower crime, then why did prison populations multiply seven-fold? This dissertation argues that mass incarceration is a central institution in the neoliberal social structures of accumulation. Mass incarceration as an institution plays a critical but underappreciated role in channeling class conflict in the neoliberal social structures of accumulation (SSA). Neoliberalism has produced a significant section of the
working class who are largely excluded from the formal labor market, for whom the threat of unemployment is not a sufficient disciplining mechanism. At the same time, it has undermined the welfare systems that had managed such populations in earlier periods. Finally, the racial hierarchy essential to capitalist hegemony in the United States was threatened with collapse with the end of Jim Crow laws. This dissertation argues that mass incarceration has played an essential role in overcoming these barriers to stable capitalist accumulation under neoliberalism.
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CHAPTER 1

INTRODUCTION

You know, in my life I've rarely been amazed. Rarely been amazed. But I'll tell you what amazed me is that last time I was in [prison, in 1992]. I thought, you know, look at all these guys in here. I thought, all these guys were in there for something, you know, that they had done SOMETHING. But then people started telling me what they were in for. More than half the guys, they were in for drugs, for possession. I mean, for NOTHING. That was truly amazing, you know, to me.

—Ex-gangster, 1994 (Quoted in Gilmore 2007, 87)

If you get dipped in waste, you come out stinking. Prison is like waste, when you go in, you come out stinking.

—Robert Hillary King, former prisoner, Community Church of Boston, Boston, MA, April 5, 2009

They hang the man and flog the woman,
Who steals the goose from off the common,
Yet let the greater villain loose,
That steals the common from the goose.
And geese will still a common lack
Till they go and steal it back.

— 17th Century English protest rhyme against Enclosures

...is there not a necessity for deeply reflecting upon an alteration of the system that breeds these crimes, instead of glorifying the hangman who executes a lot of criminals to make room for the supply of new ones?

—Karl Marx, 1853
In late March 2009, the town of Milton, Massachusetts—a suburb of Boston—was shocked by a brutal murder. When the police arrived on the scene, some officers witnessed a beheading. They watched Kerby Revelus, age 23, decapitate his five-year-old sister, Bianca, while her birthday cake was still on the table. Another sister, Samantha, had already been murdered. The police officers killed Kerby while he was trying to kill a third sister, Saraphina, who had already been stabbed multiple times.

Kerby Revelus had been to prison twice since 2006. “The first time he came out it was, ‘What happened to you?’” she [Jessica Revelus, a 21-year-old sister of Kerby, Samantha, Bianca and Saraphina] said, describing the family's shock over his changed attitude. “The second time it was, ‘Who are you?’ “Jail made him worse,” Jessica explained. After his re-entry into society, neighbor Abdul Kamara said, “Sometimes he was friendly, and sometimes he would just lose it.” This started happening “ever since he came out of jail.” Kerby had been depressed, the Boston Globe reports, because he couldn't get a job due to his having a criminal record.

Kerby was incarcerated for the first time after he was arrested in 2005 at a package store for threatening a clerk with a handgun clip when the clerk refused to serve him. In 2007, Kerby was arrested and incarcerated a second time for illegal possession of a firearm. Two months after he was released from prison for relatively minor crimes, he committed the brutal murder of his sisters. What would make a human being commit
such a terrible act? According to the *Boston Globe* and the *Boston Herald*, family and friends all seemed to agree: prison made him that way.¹

Incarceration exists because it is said to lower crime. This seems to be common sense as well as an understanding reached by academics (Liedka et al. 2006, Useem and Piehl 2008, Levitt 1996, Western 2006, Marvell and Moody 1994, Spelman 2000). But is this really true? Is the tragic example of Kerby Revelus an exception to this common sense view? Does incarceration indeed lower crime and thus increase social welfare in U.S. society?

The State of California sentenced Richard Morgan to 25 years for shoplifting a baseball glove; Eric Simmons to 25 years for possession of three stolen ceiling fans; George Anderson to 25 years-to-life for filing a false driving license application; Clifford Smith to 25 years for trying to cash a forged check for $193 (Stern 2005, 45). Forty years ago, these people would not have been locked up for their crimes. Does imprisoning them lower crime, make us safer and increase our social welfare?

This dissertation suggests that Kerby Revelus is not an exception to the rule and that mass incarceration does not lower crime, make us safer, or increase social welfare. It presents evidence that the opposite relationship holds, that mass incarceration actually increases crime rates, makes us less safe and thus decreases social welfare. It then seeks to answer the question ‘If incarceration does not decrease crime, why does the United States lock up so many of its own citizens?’ This dissertation also analyzes why

incarceration in the United States has increased drastically over the past 35 years, using a social structures of accumulation (SSA) framework.

The United States incarcerates more of its own people than any other country. With just below 5% of the world's population, the United States houses almost 25% of the world's prisoners (Parenti 1999, Stern 2005). While for most of the century the incarceration rate hovered around 100 per 100,000, since the early 1970s it has skyrocketed and is now 750 per hundred thousand. This increase is illustrated in Figure 1.1; it is a seven-fold increase over almost forty years. By 2008, the United States housed 1.6 million in its federal and state prisons, an additional 700,000 in its jails and over 5 million were under supervision in the probation and parole system (Warren 2008). Over 2/3 of all prisoners today are Blacks and Latinos, while 2/3 of all prisoners prior to the prison boom in 1965 were white. Figure 1.2 illustrates the rise of incarceration by race and shows that more than 1 in 3 Black men without a high school diploma are behind bars. The Pew Center on The States’ 2008 report One in 100: Behind Bars in America 2008 calculated that now 1 in 99 adults are behind bars. The report also calculates the incarceration rates by gender, age, and race. Black men between ages 20 and 34 are incarcerated at the rate of 1 in 9 (Warren 2008). But, what does this increased incarceration mean for crime? Did this massive, place-specific, and historically

2 Incarceration is usually measured per 100,000. As of January 1, 2008, the incarceration rate is 750 per 100,000. This number includes jails. The incarceration rate per 100,000, according to Useem and Piehl (2008), increased five-fold between 1973 and 2005 from 96 to 491. These latter rates do not include jail and federal populations.
unprecedented boom in incarceration lower crime and thus increase social welfare in the United States?

A common point of view is that the U.S. has a large prison population because it is a high-crime society. There are no data which supports this view. The U.S. has an exceptionally high murder rate, but with regard to other crimes, both violent and property crimes, it is not near the top compared to other industrial nations. Van Dijk et al. (2008) have an international survey of crime which compares crime victimization across nations. This presents a simple measure of the overall risk of victimization by common crimes at the national level in 30 different nations. The four nations with the highest overall victimization prevalence rates are Ireland, England and Wales, New Zealand and Iceland. Other countries with comparatively high victimization rates are Northern Ireland, Estonia, the Netherlands, Denmark, Mexico, Switzerland and Belgium. These are the nations with overall victimization prevalence rates “that are statistically significantly higher than the average of the 30 participating countries” – what the study calls the high-crime countries (Van Dijk et al. 2008, 42). The victimization prevalence rates of the United States, Canada, Australia and Sweden are near the average. The low-crime countries, using this measure, are Spain, Japan, Hungary, Portugal, Austria, France, Greece and Italy; these nations all have victimization prevalence rates at levels significantly below the average of the 30 surveyed industrial nations. This survey is the

3 They measure the overall one-year victimization prevalence rate, which is the percentage of people per nation which were victimized once or more in 2004 by any of the ten common crimes, based on survey data.
fifth of its kind since 1989. While over this 15-year period the rankings changed, the U.S. was never included in the “high-crime countries” (Van Dijk et al. 2008).

The United Nations publishes international incarceration rates in its Human Development Reports. The Human Development Report 2007/2008 lists the incarceration rates for 177 nations. The data was collected in January 2007. The incarceration rates per 100,000 people of the high-crime countries (in parentheses):
Ireland (72), United Kingdom (124), New Zealand (186), Iceland (40), Estonia (333), the Netherlands (126), Denmark (77), Mexico (196), Switzerland (83) and Belgium (91).
The incarceration rates of low-crime countries (again in parentheses): Spain (145), Japan (62), Hungary (156), Portugal (121), Austria (105), France (85), Greece (90) and Italy (104). For the nations close to the average victimization rate, there incarceration rate is (in parentheses): United States (738), Canada (107), Australia (126) and Sweden (82).
Although it is an average crime country, the United States has the highest incarceration rate by far. The U.S. has 5.5 times the average incarceration rate of 133 for high-crime countries. The U.S. has 6.8 times the average incarceration rate of 108 for low-crime countries and 7 times the average incarceration rate of 105 for average crime countries. The U.S. is an outlier in its use of incarceration, but there is no systematic relationship between crime and incarceration rates at the international level. For example, Spain, which has the lowest rate of victimization, has an incarceration rate of more than triple that of Iceland, which has the highest victimization rates. Clearly whatever social function incarceration serves, it is not a straightforward relationship with crime.
This dissertation explores this relationship between crime and incarceration. The United States has implemented a new public policy of mass incarceration since the 1970s, but what has this done to crime? In Chapters 2 and 3, I find evidence to support that incarceration does not lower crime. Chapter 2 uses the same methodology and structure as the most cited paper on the relationship between prison population size and crime rates. In this renowned paper, Steven Levitt (1996) argues that his state-level analysis better estimates this relationship than do previous studies because of its use of overcrowding litigation as an instrumental variable to overcome the problem of simultaneity. Chapter 2 extends the data and uses a different instrumental variable of marijuana and cocaine mandatory sentencing. I argue that this is a better instrumental variable to use and reflects the reality of the U.S. more than Levitt’s paper does. What Levitt really measured is the effect on crime rates when the marginal prisoner is released. I ask what happens to crime rates when the marginal prisoner is added. My results are very different than Levitt’s. While Levitt finds evidence that supports the idea that incarceration lowers crime, I find the opposite: incarceration has a positive effect on crime and increases crime, not lowers it.

Chapter 3 asks a similar question as Chapter 2, but at a different level of aggregation. Chapter 3 makes an argument that incarceration is very localized. Thus, if we estimate this incarceration-crime relationship at a more aggregate level, we might be getting wrong estimates. Chapter 3 uses a panel data analysis of Tallahassee, Florida neighborhoods to estimate this relationship. I find strong evidence that, indeed, adding prisoners increased crime in the following year.
If incarceration does not lower crime, then why does the United States lock up so many of its citizens? Chapter 4 argues that mass incarceration is a central institution in the neoliberal social structures of accumulation (SSA). Mass incarceration as an institution plays a critical but underappreciated role in channeling class conflict in the neoliberal SSA. Neoliberalism has produced a significant section of the working class who are largely excluded from the formal labor market, for whom the threat of unemployment is not a sufficient disciplining mechanism. At the same time, it has undermined the welfare systems that had managed such populations in earlier periods. Finally, the racial hierarchy essential to capitalist hegemony in the United States was threatened with collapse with the end of Jim Crow laws. This chapter argues that mass incarceration has played an essential role in overcoming these barriers to stable capitalist accumulation under neoliberalism.

This dissertation is a contribution to the debate on the consequences of the penal system and incarceration on the economic and social welfare of contemporary U.S. society. I find evidence that the punitiveness of the penal system and the high levels and duration of incarceration do little to increase societal welfare by increasing social safety and reducing crime. Further, this evidence supports that in several ways, these policies serve to impose significant costs to society which are not included in typical cost-benefit analyses. This dissertation also contributes to an understanding of the neoliberal period in the United States, where it argues that mass incarceration is a central institution. Figure 1.1 illustrates this graphically as the incarceration rate in the United States skyrockets at the advent of the neoliberal era and Figure 1.2 displays the racial disparity.
in this drastic increase in the American prison population. This study also contributes to our understanding of mass incarceration and hopefully can contribute to making sense of the experience of the many young men, like Kerby Revelus, who go in and out of the U.S. prison system.
Table 1.1
Studies of Impact of Incarceration Rates on Crime Rates That Do Not Account for Simultaneity

<table>
<thead>
<tr>
<th>Study</th>
<th>Data</th>
<th>Estimated % change in crime rates due to a 10% increase in incarceration rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devine, Sheley and Smith</td>
<td>National—1948-1985</td>
<td>-28 (violent offenses) -19.9 (property offenses)</td>
</tr>
<tr>
<td>(1988)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marvell and Moody (1994)</td>
<td>49 states—1971-1989</td>
<td>-1.6 (index offenses)</td>
</tr>
<tr>
<td>Besci (1999)</td>
<td>50 states and D.C.—</td>
<td>-0.46 (violent offenses) -0.93 (property offenses)</td>
</tr>
<tr>
<td></td>
<td>1971-1993</td>
<td></td>
</tr>
<tr>
<td>Rapheal and Winter-Ebmer</td>
<td>50 states—1971-1997</td>
<td>Not significant (violent offenses) -1.1 (property offenses)</td>
</tr>
<tr>
<td>(2001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donahue and Levitt (2001)</td>
<td>50 states—1973-1997</td>
<td>Not significant (violent offenses) -1.6 (property offenses)</td>
</tr>
<tr>
<td>Levitt (2001)</td>
<td>50 states—1950-1999</td>
<td>-1.3 (violent offenses) -0.076 (property offenses)</td>
</tr>
<tr>
<td>Defina and Arvenites (2002)</td>
<td>50 states and D.C.—</td>
<td>Not significant (murder, rape, assault, robbery) -1.1 (burglary) -0.56 (larceny)</td>
</tr>
<tr>
<td>Study</td>
<td>Counties/States</td>
<td>Time Period</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Liedka, Piehl and Useem (2006)</td>
<td>50 states and D.C.—</td>
<td>1970-2000</td>
</tr>
</tbody>
</table>
Table 1.2
Studies of Impact of Incarceration Rates on Crime Rates That Do Account for Simultaneity

<table>
<thead>
<tr>
<th>Study</th>
<th>Data</th>
<th>Estimated % change in crime rates due to a 10% increase in incarceration rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levitt (1996)</td>
<td>50 states and D.C.—1971-1993</td>
<td>-3.8 (violent offenses) -2.6 (violent offenses)</td>
</tr>
<tr>
<td>Spelman (2000)</td>
<td>50 states and D.C—1991-1997</td>
<td>-4.0 (index offenses)</td>
</tr>
<tr>
<td>Spelman (2005)</td>
<td>254 Texas Counties—1990-2000</td>
<td>-4.4 (violent offenses) -3.6 (property offenses)</td>
</tr>
<tr>
<td>Kovandzic, Sloan and</td>
<td>188 cities(&gt;100,000)—1980-2000</td>
<td>Not significant (all offenses)</td>
</tr>
</tbody>
</table>
Figure 1.1 Incarceration Rate, 1925-2009

Note: Incarceration Rate 1925 – 2009 per 100,000 of sentenced prisoners under jurisdiction of State and Federal correctional authorities on December 31.
Source: Table 6.28.2009 Sourcebook of Criminal Justice Statistics.
Figure 1.2 Incarceration Rate by Race, 1980-2008

CHAPTER 2
THE EFFECT OF PRISON POPULATION SIZE ON CRIME RATES:
EVIDENCE FROM COCAINE AND MARIJUANA MANDATORY MINIMUM
SENTENCING

2.1 Introduction

Researchers have debated the causes of this sharp increase (Parenti 1999, Gilmore 2008, Levitt 2004, Spelman 2000, Wacquant 2001, Stern 2005, Western 2006, Clear 2008, Useem and Piehl 2008, Dyer 2000, Wilson et al. 2002, Austin et al. 2007, Frampton et al. 2008), and multiple hypotheses about the unusually high level of U.S. incarceration are often presented in the literature. Thus, for example, it is argued that incarceration is a response to the high rates of violent crime in the United States, it is a result of the continuing legacy of racial mistrust, it is a consequence of intolerance for drug crime, it is to make profits for multinational corporations, it is to absorb surpluses created by neoliberal restructuring and so on. For all of these intuitions however, there is an underlying belief that incarceration is fundamentally a containment and deterrent device. That is, they rely on a 'common-sense' notion that the rise in prison population, apart from responding to the requirements of justice, also acts as a deterrent to crime. Crime is the prime mover in the expansion of imprisonment (Useem and Piehl 2008, Liedka et al. 2006, Spelman 2005, Spelman 2000, Levitt 1996, Marvell and Moody 1994). More recent research challenges this simple relationship and suggests that crime and incarceration are complexly linked. Literature from the sociology of crime (Clear 2008,
Clear 2007, Western 2006, Clear et al. 2003) has begun to examine the ways in which incarceration works to destroy the social fabric of marginalized populations, thereby creating the conditions for increased hopelessness and decreased sociality. A consistent theme in this literature is that the level and forms of incarceration that currently prevail may serve to actually reinforce and increase crime and that thus, incarceration may have not hit zero or even decreasing returns in deterring crime.

For the most part, this prediction has not been tested using modern econometric techniques. A major problem with studies on the relationship (from either the orthodox or the revisionist perspective) is that they do not account for endogeneity. Increased incarceration is assumed to reduce the amount of crime but at the same time it is assumed that increases in crime will translate into higher rates of incarceration. This simultaneity will cause the OLS and GLS estimates of the effects of prisons on crime to underestimate the true magnitude of the effect. As of writing, only four published studies (to my knowledge) explicitly address the issue of simultaneity and attempt to separate the effect of incarceration on crime from the effect of crime on incarceration (Levitt 1996, Spelman 2000, Kovandzic et al. 2004, and Spelman 2005). These studies use instrumental variables to break this simultaneity. Table 1.1 and Table 1.2 summarize the results of both sorts of studies.

Among the studies which account for simultaneity, it should be noted that these studies ask slightly different questions. Levitt (1996) and Kovandzic et al. (2004) ask whether prisoner releases affect crime, while Spelman (2005) asks whether prisoner increases affect crime. Econometrically, this corresponds to different LATE estimates,
and suggests the presence of substantial heterogeneity in the relationship between incarceration and crime, even when causality is established\textsuperscript{4}. The population affected by prisoner releases could be substantially different from the population affected by prisoner additions.

Spelman, 2005 is the perhaps the only study which tries to ask whether increasing incarceration at the margin has an effect on crime. The results from his study suggest that increasing incarceration reduces crime. However, there are significant questions about the instruments utilized. In particular, several of the instruments he uses (number of police officers hired, expenditure on police) can be argued to be endogenous to the question at hand and therefore not valid to counter the endogeneity problem.

I ask a similar question to Spelman (2005). Does adding prisoners increase or decrease crime? This chapter however utilizes an alternative, more plausible instrument at a different level of aggregation. Specifically, in order to address the problem of simultaneity, I use cocaine and marijuana mandatory minimum legislation as a plausible instrument for incarceration. The adoption of these laws, as I shall describe below, were not directly related to the level of violent or property crime but did result in significant increases in the prison population. Furthermore, by using this instrumental variable for a panel of 50 states over 45 years, I find that increased incarceration has a significant and positive causal effect on crime. Specifically, a 1 percent increase in the prison population is associated with a .28% increase in the violent crime rate. Such a finding provides the

\textsuperscript{4} See in particular Imbens, Angrist and Krueger (1994) on this point.
first econometrically well-grounded support for the hypotheses espoused by revisionists. It may indeed be that higher incarceration has now actually begun to drive violent crime. While there is a positive effect of incarceration on property crime (an elasticity of .17), this effect is not statistically significant.

The outline of this chapter is as follows. In section 2.2 of this chapter, I discuss the history and implementation of cocaine and marijuana mandatory minimums. Section 2.3 is a discussion of the method and describes the data used in the analysis. The relationship between incarceration levels and crime rates using mandatory minimums for cocaine and marijuana is econometrically estimated in Section 2.4. Section 2.5 offers a brief conclusion and directions for further research.

### 2.2 A Brief History of Mandatory Minimum Sentencing

The indeterminate sentencing structures that dominated state systems through the 1970s fragmented over the last 30 years, replaced by patchworks of determinate and structured sentencing, mandatory sentencing, habitual offender laws, and truth-in-sentencing laws. Through a series of progressions and regressions, states have adopted, abandoned, or altered various sentencing strategies at different points in time to address diverse and often conflicting objectives. After 30 years of experimentation and flux, the fragmentation in sentencing and corrections policies across states has created an array of approaches to the use of imprisonment as numerous as they are complex (Stemen et al. 2006, 1).

Prior to the 1970s, all fifty states had an indeterminate sentencing model where judges exercised broad discretion over the disposition and duration of sentences imposed and parole boards maintained authority over the duration of sentences served through discretionary release (Tonry 1996, Stemen et al. 2006). Sentences were indeterminate in that the sentences received vary greatly from the actual sentence served and that the judge
and the parole board had great discretion to tailor the sentence, including probation, to an individual based on the rehabilitative ideal.

The indeterminate system reflected the ideology of rehabilitation. The goal of indeterminate sentencing was rehabilitation through the individualization of the sentence. This could only be achieved by tailoring a sentence to the unique characteristics of the individual and the particular situation. States did not have standard sentences for particular crimes since this would undermine the rehabilitative ideal by not allowing the judge to wield great discretion to impose a sentence length, within a range set by state statues, based on the judge evaluation of the individual circumstance. State statues included few restrictions for a judge to impose sentence length (including probation). The final authority of the actual sentence served rested with the parole board. Within a wide range of limits, the parole boards had great discretion when to release a prisoner. Parole boards could release a prisoner at any time between some minimal time served and the maximum limit of the sentence.

In a prominent case, George Jackson, a famous Black revolutionary, was sentenced for driving the getaway car in an armed robbery of a gas station in 1960 to one-to-life (James 2003, 84). The release of George Jackson was in the hands of the parole board which could decide to release Jackson in a range of one year or never. In the atmosphere of rebellion in the late 1960s and early 1970s this indeterminate sentencing was confronted as many saw it as putting the power of release of prisoners in the hands of the prison administrators. Radical and liberal activists challenged indeterminate sentencing as they saw the potential for abuse and racial discrimination in the wide
discretion of judges and parole boards. There was also a challenge to indeterminate sentencing from a different constituency of the population. Goldwater's presidential campaign started a war on crime and the indeterminate system was challenged by those who believed that judges were too lenient on criminals and time served by prisoners was too short.

By the mid-1970s sentencing reform was introduced under the political pressure from both constituencies. This led to determinate sentencing in which sentence length was primarily determined by the sentence imposed by the sentencing court and ensured sentence lengths and dispositions were uniform and imposed according to a set of prescribed criteria. These reforms resulted in the initial adoption of new sentencing guidelines which abolished discretionary release by a parole board and reduced the power of the judge by statute.

These initial sentencing reforms focused on a move to determinate sentencing. The first step of this was pushed by the left and parole boards were abolished. These initial reforms mostly abolished the authority of the parole board and were not focused on sentencing decisions but instead about release decisions. Prisoners would be automatically released after their term was up. The push for sentencing reform also came from the right. James Q. Wilson in his 1975 book, *Thinking about Crime*, discusses the problems with the courts, which he describes as the “crucial agency in the system” (Wilson 1975, 163). The main problem is the “idiosyncratic beliefs of the judges” (Wilson 1975, 166). Rehabilitation, according to this view had failed and needed to be abandoned. Instead deterrence should be supported. The way to solve crime, Wilson
argued, was to eliminate the disparities in sentencing and sentences should be the “deprivation of liberty.” Repeat offenders should “invariably result in in an increased deprivation of liberty” (Wilson 1975, 180).

After the initial reforms, a challenge continued from the right to push for more “tough-on-crime” policies to correct what they perceived to be a failed system. Since rehabilitation fell out of favor, harsher punishment began to be in vogue. Mandatory sentences, repeat-offender laws, and truth-in-sentencing laws proliferated through the 1980s and 1990s in a climate which demanded the imposition of harsher and harsher penalties. Mandatory minimum sentencing was introduced as part of this political and ideological battle. This policy was adopted at different times by different states and was premised on a single idea, having strict and visible penalties on crime which were not alterable at discretion by the parole board or judge. The content of each mandatory minimum sentence law has differed considerable from state to state and the particular crimes which come under this purview also differ considerably.

Mandatory minimum laws impact procedural aspects of a state’s sentencing system (by constraining sentencing and release decisions for certain offenses), mandatory sentencing laws are substantively focused at particular offenses (e.g. drug offenses, violent offenses, or sex offenses) or specific triggering events (offenses involving use of a firearm, against a minor, or in proximity to a school). Stemen et al. (2006) reveals three factors that affect mandatory sentencing provisions: 1) whether the law alters the duration of the sentence for the underlying offense, 2) whether the law requires the judge to alter the duration of the sentence imposed, and 3) whether the law requires the judge to impose
incarceration. Based on these factors, Stemen et al. infer several types of mandatory sentencing laws may: 1) discretionary sentence enhancements in which the law alters the duration of the sentence for the underlying offense but allows the judge to impose the same length of sentence for the underlying offense that would otherwise be available by law and still allows the judge to impose a non-incarceration sanction for the underlying offense; 2) mandatory sentence enhancements in which the law alters the duration of the sentence for the underlying offense and requires the judge to impose a different length of sentence than would otherwise be available or required by law, but still allows the judge to impose a non-incarceration sanction; 3) mandatory enhanced incarceration in which the law alters the duration of the sentence for the underlying offense, requires the judge to impose a different length of sentence than would otherwise be required or available by law, and requires the judge to impose incarceration; 4) mandatory incarceration in which the law requires the judge to impose incarceration, but does not alter the statutory term for the underlying offense and does not require a specific length of sentence be imposed; and 5) enhanced mandatory incarceration in which the law alters the duration of the sentence for the underlying offense and requires the court to impose incarceration, but does not require the judge to impose a different length of sentence than would otherwise be required or available by law.

The increased use of mandatory sentencing laws has been held out as a major cause of increases in prison populations since 1973, when the first mandatory sentence was implemented in New York. Stemen et al. (2006) shows that states with more mandatory sentencing laws have higher incarceration rates than other states. States have
imposed more prohibitions against the granting of probation and have proscribed more mandatory minimum sentences for offenses. In many cases, judges are now constrained in their abilities to set either the disposition or duration of many sentences.

By 2007, these laws had become so pervasive that Raphael and Stoll (2007) conclude that the lion's share of the increase in prison population could be explained because of sentencing laws. These have resulted in an increase in the average time served, and an increase in the likelihood of being sent to prison. “In other words, so many Americans are in prison because through our collective public choices regarding sentencing and punishment we have decided to place so many Americans in prison” (Raphael and Stoll 2007, 34). They estimate that 80 to 85 percent of prison expansion can be explained through these sentencing changes which increased both how long one goes to prison (expansion among the intensive margin) and who goes to prison (expansion along the extensive margin). Raphael and Stoll results show that at the most 17 percent of the expansion can be explained by criminal behavior while the rest is a result of changes in sentencing.

This historical account then gives support to the validity of using the introduction of mandatory minimums as an instrumental variable, one which is not correlated with the crime rate but does increase the prison population. I use further a particular type of mandatory minimum sentencing law—mandatory minimum sentences in cocaine and marijuana, which have differed widely both in scope and timing in different states. For example, Georgia has a mandatory minimum sentence of 120 months for the possession of cocaine, while in Michigan the sentence is for 12 months. Given the variation in both
timing and intensity of the laws, mandatory minimum sentencing is a compelling instrument.

A preliminary graphical check for this is presented in Figure 1. This traces the growth rate of total prison populations in states with marijuana mandatory minimums versus those which did not implement them. The year coefficients depicted are from regression of Prisoners Per Capita on Year, for the two groups. As is evident, prison populations grew faster in states with mandatory minimum sentencing than those without, providing prima facie evidence for the effect.

2.3 Methodology and Data: Correlations Between Marijuana and Cocaine

Mandatory Minimums, Prison Populations, and Crime Rates in the Raw Data

The methodology in this chapter follows that of Levitt (1996) very closely. Levitt’s paper was the first to try to separate the endogeneity issues that mire the relationship between incarceration and crime. Increased incarceration is assumed to reduce the amount of crime but at the same time it is assumed that increases in crime will translate into higher rates of incarceration. This simultaneity will cause the OLS and GLS estimates of the effects of prisons on crime to underestimate the true magnitude of the effect. An obvious solution to the presence of random regressors is the use of an instrumental variable, which can be used to get around this simultaneity. The instrumental variable that is needed is one which is correlated with changes in the size of the prison
population and which is not directly correlated with crime rates, other than through the prison population. Levitt uses the status of state prison overcrowding litigation arguing that prison overcrowding litigation will be related to crime rates only through its impact on prison populations, making it a valid instrumental variable. Such an argument suggests that the change in the prison population on the crime rate can be found by taking the effect of legislation on the crime rate, and dividing by the effect of legislation on the prison population. This logic can also be illustrated in a schematic form:

\[
\frac{\Delta \text{Crime}/\Delta \text{Legislation}}{\Delta \text{Prison Population}/\Delta \text{Legislation}} = \frac{\Delta \text{Crime}}{\Delta \text{Prison Population}}
\]

This chapter uses the same logic and model specification but uses a different instrumental variable: marijuana and cocaine mandatory minimums. As suggested earlier, the marginal addition of a prisoner to the ranks of the incarcerated can have different effects than the marginal removal of a prisoner on the crime rate.

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5 Levitt (1996) employs the status of state prison overcrowding litigation as an instrumental variable. “Over the past 30 years, prisoners' rights groups have brought numerous civil suits alleging unconstitutional conditions in prisons. In twelve states the entire state prison system either is currently or has formerly been under court order concerning overcrowding” (Levitt 1996, 323). Levitt shows that this overcrowding litigation is correlated with a decrease in the size of the prison population and that it is otherwise unrelated to crime rates. But there are some problems with the use of this instrument. The main problem is that this instrument captures the release of the marginal prisoner on the crime rates. The larger point is to evaluate the crime-reduction effectiveness of incarceration on a substantial scale. What should be measured is not the release of the marginal prisoner on crime rates but instead the marginal addition of a prisoner on crime rates. In the current climate of “tough-on- crime” policies a released prisoner faces many obstacles to reintegrate as a productive member of society. In the face of these obstacles it is not difficult to see why most released prisoners return to prison within three years (Travis 2005). Levitt's instrument captures this tendency. Released prisoners increase the crime rate. The instrumental variables, cocaine and marijuana sentencing guidelines, employed in this paper measure the marginal addition of a prisoner. The implementation of both cocaine and marijuana mandatory minimums legislation increased the size of the prison population but is otherwise unrelated to the crime rate.
This chapter uses state level panel data for the 50 states not including the District of Columbia, running from 1971 through 2006 to assess this relationship. The data on prison population recorded the number of people who were in the state prison system on December 31, and were serving sentences of at least a year. This includes prisoners who were under the control of the state prison system but housed in local jails or in prisons in other states due to overcrowding, but it does not include the majority of the incarcerated population in local jails, nor does it include those incarcerated in federal prisons. Thus, the prison population data captures 65% of U.S. Prisoners. Incarceration data is obtained from the Bureau of Justice Statistics.

Crime statistics came from the FBI’s *Uniform Crime Reports*, which compiles annually the number of different types of crimes that are reported to police. Crime data was available for seven different types of crime, which were divided into the categories of violent crime and property crime. Violent crime consists of murder and non-negligent manslaughter, forcible rape, aggravated assault and robbery. Property crimes consist of burglary, larceny and motor-vehicle theft. All other crimes such as drug sale, drug possession, tax-evasion or insider trading are not included in these commonly used crime rates.

The instrumental variable chosen for this chapter is the marijuana and cocaine mandatory minimum laws as coded by the Stemen et al. (2006) study. In this study there are a series of coded mandatory minimum law variables associated with cocaine and marijuana including the severity levels of cocaine and marijuana, possession of cocaine and marijuana and the sale of cocaine and marijuana. There exists great variation in these
mandatory minimum laws. The study coded this variation, from the types of offenses targeted to the lengths of sentences mandated to the impact the laws have on judicial discretion and release from prison. For the mandatory minimum laws, the data was taken from the following study ICPSR 4456: Impact of State Sentencing Policies on Incarceration Rates in the United States, 1075-2002.

Other variables that I use include control variables such as per capita income in the state, its unemployment rate, the percentage of the state’s population that is Black, the percentage of the population that lived in metropolitan areas, the number of police per capita, and the percentage of the population in different age groups. This data was taken from the Statistical Abstract of the United States. Table 2.1 gives summary statistics for 50 states for the data described used in the analysis.

Table 2.2 looks at the effect of varies coded cocaine and marijuana laws on prison populations, violent crime and property crime. Two effects can be observed. First, some of the coded legislation does not have a large impact on prison populations and some even a negative effect. Overall the coded cocaine and marijuana legislation does have a positive impact. For certain coded legislation it has a positive impact on prison population which is even significant. The second observation is that overall the coded legislation does not have a significant impact on crime rates. All regressions in Table 2.2 are OLS estimates with White-heteroskedasticity consistent standard errors in parentheses. All regressions are robust clustered state effects.

6 This four year study was conducted under leadership of Don Stemen at the Vera Institute of Justice with funding provided by a grant from the National Institute of Justice Grant No.: NIJ 2002-IJ-CX-0027.
2.4 Estimates of the Elasticity of Crime with Respect to Prisoner Populations

Following Levitt (1996), the basic specification used to estimate the elasticities of crime with respect to the prison population is:

$$\Delta \ln (\text{Crime}_st) = \beta \Delta \ln (\text{Prison}_{st-1}) + X_{st} q + \gamma_{st} + \varepsilon_{st}$$

Where the subscript $s$ corresponds to states, and $t$ indexes years. Crime and Prison are the relevant per capita crime and incarceration rates. The variables are either the change from the previous year or the growth rate from the previous year, to help avoid the bias associated with non-stationary time-series data. In addition, year controls are included to correct for consistent differences in growth rates between years. Logs are used so that results will be reported in elasticities and can be compared to other studies. The prison variable is lagged since data on prison populations are snapshots as of December 31. $X_{st}$ is a vector of covariates, and $y_{st}$ is a vector for year dummies. In some of the cases, the state-fixed effects are also included. Levitt uses the litigation status as an instrument for the prison population. $\beta_{st}$ is the elasticity of the crime rate with respect to the prison population, which Levitt predicted to be negative and with a stronger negative effect when using the instrumental variable. If no instruments were used, simultaneity would make the number of prisoners be positively correlated with the residuals of the crime equation, potentially inducing a positive bias in the estimates of $\beta_{st}$. But if the instrumental variable is a valid instrument the estimation should lead to consistent estimates.
Formally: the first-stage equation is thus given by:

$$\Delta \ln (\text{Prisoners}_{\text{st}-1}) = \lambda_{-1} Z + X'_{\text{st}} \gamma + \varepsilon_{\text{st}}$$

However, suppose the true model is instead

$$\Delta \ln (\text{Crime}_{\text{st}}) = \beta_{-1} \Delta \ln (\text{Prisoners}_{\text{added}_{\text{st}-1}}) + \beta_{-2} \Delta \ln (\text{Prisoners}_{\text{released}_{\text{st}-1}}) + X'_{\text{st}} \gamma + \varepsilon_{\text{st}}$$

with the first stage equation given by:

$$\Delta \ln (\text{Prisoners}_{\text{released}_{\text{st}-1}}) = \lambda_{-1} Z + X'_{\text{st}} \gamma + \varepsilon_{\text{st}}$$

Where $Z$ is a vector of legislation corresponding to Levitt's instruments. While the resulting estimates of $\beta_{-1}$ will be consistent and internally valid, they may not be the parameters of interest. Given that the macro trend in incarceration has been a steep increase, the more relevant parameter for understanding the recent history of imprisonment in the US is likelier to be $\beta_{-1}$ thus, I use a different first stage equation given by:

$$\Delta \ln (\text{Prisoners}_{\text{added}_{\text{st}-1}}) = \lambda_{-2} \text{MM} + X'_{\text{st}} \gamma + \varepsilon_{\text{st}}$$

where MM refers to a vector of mandatory minimum sentencing laws.

Given that I do not observe separate flows for released and added prisoners, the true model is not estimable. Thus I estimate equation 1 with TSLS, where the first-stage equation is:

$$\Delta \ln (\text{Prisoners}_{\text{st}-1}) = \lambda_{-1} Z + X'_{\text{st}} \gamma + \varepsilon_{\text{st}}$$
If the resulting coefficients are substantially different, and the exclusion restrictions are satisfied by both instruments, then this suggests the presence of substantially treatment effect heterogeneity. As Imbens and Angrist (1994) have shown, the IV estimate is only valid for the population of "compliers", the subset of the population whose behavior is altered by the instrument. If mandatory minimums affect a different population of potential criminals than prison overcrowding legislation, then the two estimates are likely to differ, despite both being internally valid.

Table 2.3 summarizes the estimates of the elasticities of crime with respect to prison populations. The OLS estimates are negatively correlated but not significant. The 2SLS estimates are positively correlated for both the violent crime and the property crime. The violent crime estimate is significant but the property crime rate is not. The results show that an increase incarceration leads to an increase in violent crime. The percent Black and the Police per capita are positively correlated but are also not significant. For violent crime the 2SLS result shows that for a 1% increase in the prison population there will be a .28% increase in the violent crime rate. This result is different from previous studies. Levitt finds a significant negative elasticity on violent crime of - .42, for example. In addition, the estimate precision is higher using the mandatory minimums instrument, with a standard error on the 2SLS estimate of .11, compared to .24 for the overcrowding legislation IV estimates. The only other study which shows a

7 The difference between the estimates in this paper and Levitt's is likely due to the heterogeneity in treatment effects as described above.
positive correlation is Liedka, Phiel and Useem (2006) study where there is a positive correlation for high incarceration states.

2.5 Conclusion and Further Research

Using mandatory minimums for marijuana and cocaine as an instrument for changes in the prison population, this chapter attempts to estimate the marginal productivity of increased incarceration on crime. The estimates obtained are in the opposite direction of those estimates obtained by most previous studies. Increasing incarceration does not have a negative effect on crime but instead has a positive effect. A one-percent increase in incarceration leads to a .28 percent increase in violent crime.

The results in this chapter point to the fact the incarceration does not just reduce crime, but that increased incarceration may lead to an increase in crime. Our society has relied heavily on incarceration and this might not increase our social welfare and might actually even decrease it. In light of these results we should reconsider the massive use of incarceration to solve our problems.

Theoretically, incarceration can decrease crime through the following four mechanisms. The first mechanism is deterrence. This means that the threat of incarceration will deter a potential offender from committing a crime. Secondly, incapacitation, which means that if a person is removed from society they cannot commit any crimes for the time period they are removed. Third, rehabilitation is the belief that a person will become rehabilitated while incarcerated and when they are returned to society
the ex-offender will become a productive member of society again. Lastly is the idea of retribution, the sudden loss of liberty will shock an offender to leave the life of crime behind.

But these are not the only possible effects of incarceration on crime. Clear (1996) discusses three crime-enhancing effects of incarceration: A replacement effect, a normalization effect and a disrupted community effect. We can also imagine a number of possible crime-enhancing effects of incarceration: crowding-out of preventative funding, obstacles to re-entry, increasing inequality, extending the 'criminal age' or the various institutional incentives. A positive relationship between crime and incarceration might point to the fact that these crime-enhancing effects tend to become stronger during periods of high incarceration. The empirical results of this chapter support the possibility of these crime-enhancing effects of incarceration.

Further studies should follow two different paths. Since incarceration is very group and place specific, studies should disaggregate to the lowest possible levels. The best possible studies will be done at the neighborhood or block-group level. A second path of further should explore how incarceration rates produce changes that relate to social welfare. Quite a few scholars have started to address the social collateral consequences of mass incarceration. What has not been done yet is how these collateral consequences feedback to crime. These studies will give us a more complete picture of the effects of incarceration on crime and vice versa.
Table 2.1
Summary Statistics
per 100,000 residents where applicable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
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<tbody>
<tr>
<td>Prison Population</td>
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<td>202.4</td>
<td>20.3</td>
<td>1920.9</td>
</tr>
<tr>
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<td>457.7</td>
<td>301.4</td>
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<td>Murder</td>
<td>1826</td>
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<td>6.7</td>
<td>0.2</td>
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<td>14.2</td>
<td>4.1</td>
<td>100.7</td>
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</tr>
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<tr>
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<td>425.8</td>
<td>301.1</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Severity Levels</td>
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<td>0</td>
<td>7</td>
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<tr>
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<td>2.2</td>
<td>1.8</td>
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<td>-----</td>
<td>-----</td>
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</tr>
<tr>
<td><strong>Number of Enhancements</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>6</td>
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<tr>
<td><strong>Maximum Sentence (FO)</strong></td>
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<td>52.8</td>
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<td>240</td>
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<tr>
<td><strong>Cocaine Sale</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of Severity Levels</strong></td>
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<td>1.8</td>
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<td>6</td>
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<td><strong>Maximum Sentence (small)</strong></td>
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<td>266.8</td>
<td>12</td>
<td>999</td>
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<td><strong>Minimum Sentence (28oz)</strong></td>
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<td>0</td>
<td>240</td>
</tr>
<tr>
<td><strong>Cocaine Sentencing</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Number of Enhancements</strong></td>
<td>1603</td>
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<td>3.5</td>
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<td>18</td>
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<td></td>
<td></td>
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<tr>
<td><strong>Presence of</strong></td>
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<td>0.2</td>
<td>0</td>
<td>1</td>
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<td><strong>Police Employees</strong></td>
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<td>2.9</td>
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<td>0.25</td>
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<td><strong>Black (% of Population)</strong></td>
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<td>0.11</td>
<td>0.12</td>
<td>0.002</td>
<td>0.71</td>
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## Table 2.2

**Short-run Impact of Drug Legislation**

<table>
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<tr>
<th></th>
<th>( \Delta ) In Prison Property Population (1)</th>
<th>( \Delta ) In Violent Crime (2)</th>
<th>( \Delta ) In Crime (3)</th>
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<td>Marijuana Possession</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Number of Severity Levels</td>
<td>( .002 (.004) )</td>
<td>( -.0001 (.016) )</td>
<td>( -.0001 (.013) )</td>
</tr>
<tr>
<td>Minimum Sentence</td>
<td>( .065 (.021)* )</td>
<td>( .012 (.009) )</td>
<td>( .008 (.013) )</td>
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<tr>
<td>Marijuana Sale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Severity Levels</td>
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<td>( .018 (.024) )</td>
<td>( .012 (.019) )</td>
</tr>
<tr>
<td>Minimum Sentence</td>
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<td>( .012 (.033) )</td>
<td>( .006 (.012) )</td>
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<tr>
<td>Marijuana Sentencing</td>
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<td></td>
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</tr>
<tr>
<td>Number of Enhancements</td>
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<td>( -.003 (.018) )</td>
<td>( .001 (.012) )</td>
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<td>Cocaine Possession</td>
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</tr>
<tr>
<td>Number of Severity Levels</td>
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<td>( .0001 (.013) )</td>
<td>( .0002 (.009) )</td>
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<tr>
<td>Minimum Sentence (FO)</td>
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<td>( .016 (.016) )</td>
<td>( .015 (.021) )</td>
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<tr>
<td>Maximum Sentence (FO)</td>
<td>( .026 (.019) )</td>
<td>( .008 (.011) )</td>
<td>( .006 (.017) )</td>
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</tr>
<tr>
<td>Number of Severity Levels</td>
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<td>( .0002 (.008) )</td>
<td>( .002 (.013) )</td>
</tr>
<tr>
<td>Maximum Sentence (small)</td>
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<td>( .004 (.012) )</td>
<td>( .005 (.001) )</td>
</tr>
<tr>
<td>Minimum Sentence (28oz)</td>
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<td>( .010 (.007) )</td>
<td>( .023 (.021) )</td>
</tr>
<tr>
<td>Cocaine Sentencing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Enhancements</td>
<td>( .003 (.003) )</td>
<td>( -.001 (.004) )</td>
<td>( -.003 (.002) )</td>
</tr>
<tr>
<td>Habitual Offender laws for Drugs</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Presence of</td>
<td>( -.004 (.003) )</td>
<td>( -.003 (.006) )</td>
<td>( .001 (.013) )</td>
</tr>
<tr>
<td>( \Delta ) In Police</td>
<td>( .088 (.039)* )</td>
<td>( .081 (.042) )</td>
<td>( .022 (.015) )</td>
</tr>
<tr>
<td>( \Delta ) In % Black</td>
<td>( .031 (.014)* )</td>
<td>( .004 (.059) )</td>
<td>( .005 (.012) )</td>
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</table>

<table>
<thead>
<tr>
<th>Robust, Cluster by State</th>
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<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>( R^2 )</td>
<td>.35</td>
<td>.42</td>
<td>.57</td>
</tr>
<tr>
<td>Observations</td>
<td>1434</td>
<td>1328</td>
<td>1328</td>
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</table>

*Note: estimates in bold and * are statistically significant at .05 level*
Table 2.3
The Impact of Prison Populations on Aggregate Crime Categories

<table>
<thead>
<tr>
<th></th>
<th>Δ In Violent Crime</th>
<th>Δ In Property Crime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS (1)</td>
<td>IV (2)</td>
</tr>
<tr>
<td>Δ In Prison Population (t-1)</td>
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<td>.28 (.11)*</td>
</tr>
<tr>
<td>Δ In Police</td>
<td>.037 (.043)</td>
<td>.042 (.048)</td>
</tr>
<tr>
<td>Δ In % Black</td>
<td>.023 (.029)</td>
<td>.029 (.017)</td>
</tr>
</tbody>
</table>

Year Controls | Yes | Yes | Yes | Yes
State Controls | Yes | Yes | Yes | Yes
Instrument | No | Yes | No | Yes

note: estimates in bold and * are statistically significant at .05 level

Figure 2.1
Prison Population Total Growth:
Mandatory Minimum State vs. No Mandatory Minimum States
CHAPTER 3

THE BLUNTNESS OF INCARCERATION: CRIME AND PUNISHMENT IN TALLAHASSEE NEIGHBORHOODS, 1995 TO 2002

By employing incarceration — the bluntest of instruments — as the primary response to social disorder, policy makers have significantly missed the mark. The very laws intended to punish selfish behavior and to further common social interests have, in practice, strained and eroded the personal relationships vital to family and community life. Crime cannot go unpunished. But by draining the resources of families, by frustrating the norm of reciprocity that inheres in family life, and by stigmatizing poor and minority families, our current regime of criminal sanctions has created a set of second-order problems that furthers social detachment.

—Donald Braman, 2004

3.1 Introduction

Criminal justice policy over the last four decades has used incarceration as the primary tool to combat crime. This has led to a seven-fold increase in incarceration during this time period, and at the current juncture more than 1 in every 100 Americans are in the prison system. In the 1990s, however, crime rates began to decline dramatically. For supporters of the “lock ’em up and throw away the key” approach, this fact has been welcomed as vindication that more punitive incarceration has worked. Several researchers have provided evidence for the benefits of incarceration in reducing crime (Marvell and Moody 1994, Levitt 1996, Spelman 2000, Spelman 2005, Liedka et al. 2006 and Useem and Piehl 2008), while other scholars have argued that other factors — an improving economy, the ending of the crack-cocaine epidemic, the legalization of

abortion, changing demographics and the measurement and reporting of crime data, among others — were equally or more relevant (Levitt 2004, Reiman 2007, Zimring 2007).

While the economics literature has for the most part supported the idea that incarceration reduces crime, researchers in the sociology and anthropology of crime (Clear 1996, Rose and Clear 1998, Rose and Clear 2003, Clear et al. 2003, Braman 2004, Western 2006, Clear 2007, Clear 2008) have challenged this notion. Through a series of case studies and theoretical and empirical papers, they argue that incarceration may not succeed in reducing crime rates in socially dysfunctional, highly fractured neighborhoods. Their argument is straightforward: Incarceration works to destroy the social fabric of already disadvantaged populations and limit the ability of informal means of social control to prevent crime. As a result, after a certain point, incarceration is powerless to have an impact on crime prevention, so punitive incarceration becomes self-defeating and also leads to several socially damaging side effects. Given that informal modes of social control are only effective on a relatively small scale, such an approach suggests that econometric analyses of the relationship between incarceration and crime at aggregate levels (city, state or country) would gloss over this set of effects. Most importantly, aggregate empirical studies miss critical social processes that occur at the level of neighborhoods which might in fact be more relevant as a guide to social policies.

This chapter assesses these competing claims. I use a unique panel dataset which records crime and incarceration at the most disaggregated level yet — that of neighborhoods — in a city that experienced remarkable decreases in crime rates in the
1990s: Tallahassee, Florida. The data were collected by Clear et al. (2003) and have not been used previously. It is the first panel dataset of crime and incarceration at the neighborhood level of which I am aware. I find that although crime fell in Tallahassee between 1995 and 2002 while incarceration rates rose, there is no evidence at the level of the neighborhood to indicate that increased incarceration reduced crime. Instead, I find relatively strong evidence to support the hypothesis that, in disadvantaged neighborhoods, increased incarceration in one year is associated with increased crime the following year. Furthermore, I find little evidence that incarceration may be associated with decreased crime in other neighborhoods. In examining the correlates of incarceration in this chapter, I find evidence of what I term 'differential incarceration' in certain neighborhoods and use this to hypothesize that incarceration has as much or more to do with the social and demographic characteristics of policed populations as with observed crime in particular neighborhoods.

The outline of this chapter is as follows. In Section 3.2 I discuss the literature on the relationship between incarceration and crime, showing in particular that there is a considerable theoretical ambiguity, more than one might expect, in terms of direction of effect. Several approaches suggest that incarceration decreases crime, while other approaches suggest that incarceration can increase crime in certain social contexts. In Section 3.3, I outline the data and methodology used in this chapter, and in Section 3.4 I

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9 I would like to thank Todd Clear for generously sharing this data. This study is based and inspired by Clear et al (2003) and uses their construction of neighborhoods, but while their study uses prison data in 1996 and 1997, this current study is a panel-data analysis from 1995 to 2002.
present the results. Section 3.5 provides a brief discussion of differential incarceration, and Section 3.6 offers a brief conclusion and directions for further research.

### 3.2 The Relationship Between Crime and Incarceration

In the popular imagination, prisons are thought of as a crime fighting technology: incarcerating offenders immediately and effectively reduces crime in the future by removing 'bad eggs' from society and by deterring other would-be criminals through the demonstration effect that this entails. Such a 'common sense' perspective began governing penal policy in the early 1970s, and since then the United States has increased the size of its prison population sevenfold (Rotman 1995, Rothman 1995, Western 2006, Parenti 1999, Gilmore 2007). However, the rate of expansion of the penal system has not been accompanied by an equivalent decrease in crime. This and other facts have caused some scholars to argue that the popular view of the prison is simplistic because it fails to account for the unintended consequences of imprisonment (see for e.g. Mauer and Chesney-Lind 2002). This “critical” perspective argues that unforeseen effects in terms of social destabilization are subtle and modest but can have major accumulated effects that undermine the efficacy of incarceration to reduce crime.

The critical perspective suggests that the debate about incarceration policy has been wrongly dominated by an atomistic view of criminal behavior — a view of the world in which individuals who engage in crime are influenced by simple cost-benefit analyses independent of the contexts in which they live. In the “mainstream” view, the threat of incarceration then becomes a significant cost to consider and prevents rational
but criminally minded individuals from carrying out their illicit desires. Decisions to engage in crime are seen as products of the likelihood and degree of punishment if caught, and little else. The critical perspective provides an alternative view of criminal behavior. These accounts are typically less parsimonious and attempt to paint a more holistic perception of the potential offender — as a person who lives in particular areas with more or less criminogenic potential, interacts with fellow citizens, and responds to various life circumstances with choices based on a grounded understanding of the consequences of those choices. Given this perspective, one must question whether increasing incarceration is always likely to reduce crime, since the criminogenic environment is a key element. It is useful at the outset to briefly examine and classify the various sub-strands of theoretical accounts used to support the mainstream perspective and the critical perspective, respectively. There are broadly four reasons that might lead a researcher to believe that incarceration reduces crime: retribution, rehabilitation, deterrence and incapacitation. Retribution suggests that the 'moral' punishment involved in incarceration decreases crime over the medium term through the shock of the loss of liberty experienced by the criminal. This shock keeps the convict from committing a crime again upon release. Retribution also establishes a moral order of what is right and what is wrong (Gilmore 2007, Golash 2005) that becomes prevalent in social mores. As a variant on this theme, some scholars suggest that the process of incarceration is primarily a way to promote rehabilitation toward more pro-social behavior. Thus theorists suggest that incarceration is used to 'correct' an offender's behavior (Foucault 1977, Rothman 1995, Rotman 1995) so that a new and more well-behaved citizen is remolded
while behind bars. A third reason for incarceration is that it provides a demonstration effect, in that a potential offender calculating the expected utility of crime is faced with a potent and observable disutility from undertaking the action – in other words, a deterrence. Clearly, the actual workings of the criminal justice system contribute to the perceived threat of incarceration, and three factors — certainty, severity and swiftness of punishment — come into play (Becker 1968, Levitt 2004). The more certain, severe and swift a punishment is, the more effectively it will deter potential offenders. Finally, incarceration is said to reduce crime through the process of incapacitation. In such an account, incarceration works to reduce crime by locking up criminally minded predators since such offenders are likely to commit crimes if freed (Levitt 1996, Miller 1996); locking up the few but potent 'super predators' or criminal elements will therefore have large impacts on crime control by inoculating society from these people.

Throughout most of the 20th century, conversation about crime policy was dominated by the idea that individual offenders require reform or rehabilitation (Rotman 1995, Rothman 1995). The belief now in vogue is that they require control. Of course, these approaches differ in several important respects, but they share a common analytic foundation: crime and its control are best understood in regard to the thoughts and emotions of specific individuals who commit crimes or want to commit crimes, with offenders seen as individual actors who behave largely in isolation of their environments. The tendency to view crime as a phenomenon defined by wayward individuals and their desires is not only ingrained in penology but also reinforced by popular media.
The critical perspective suggests that these accounts are seriously mistaken in that they focus on the individual as the locus of crime and ignore the social causes of crime (Reiman 2007). As a result, the critical perspective posits, theorists have tended to overlook the fact that incarceration is not a self-contained process; locking a person up cause many individual and social effects (personal trauma, reorientation toward criminal behavior, family breakdowns, and social upheaval, to name a few) that are not typically witnessed or examined. Adopting a framework that does examine these effects provides some reasons to believe in counter processes, or counter-tendencies, generated by incarceration that can serve to undermine the efficacy of incarceration in reducing crime (Clear 1996, Golash 2005). These counter-tendencies can be summarized in three broad categories.

First, even without looking at the social effects of incarceration, the mainstream perspective ignores other individual level effects. These include scarring, school of crime and the relocation of crimes within the prison. Scarring refers to the idea that when offenders are released from prison they are scarred by their experience inside (lack of health care, sexual abuse, institutionalization, and exposure to a hyper-violent environment) and discriminated against upon their release, their punishment seemingly never-ending as it continues with employment discrimination, housing discrimination, denial of voting rights, and denial of student loans (Mauer and Chesney-Lind 2002). This, in turn, does the opposite of rehabilitation and instead creates a more anti-social individual. Another set of reasons why incarceration can actually serve to increase criminal behavior in the individual is the idea that prison is a 'school of crime' in which
criminals first learn and then improve their skills at criminal behavior and create connections with other criminals. This account implies that incarceration removes prisoners from social networks connected with employment and instead connects them to social networks associated with criminal activity. Finally, some scholars have argued that incarceration does not necessarily reduce crime but merely 'relocates' it behind bars. What is considered crime, such as rape and gang activity, is much more prevalent inside a prison than outside (Parenti 1999).

A second set of considerations arises from the recognition that incarceration is not a self-contained process and that the removal of the so-called 'bad apple' has larger social effects on families, neighborhoods and extended networks. Formal social control (police, prison, school, welfare, and so on) is thought to only partly contribute to public safety. An equally important contribution is informal social control, such as the relationships, social capital and collective efficacy among neighbors. In theory, formal social control could supplement informal social control, but in a series of articles, Todd Clear and co-authors have suggested why this might not be the case (Clear et al. 2003, Rose and Clear 1998, Clear et al. 2003, Clear 2007, Clear 2008). The primary message from this set of articles is that prison is a blunt form of control, and one that promotes 'coercive mobility' (i.e. removing large populations through the prison system) over less destructive forms of social control. This thesis argues from the viewpoint of social disorganization theory and suggests that incarceration weakens the families and communities left behind by offenders to such a degree that the community experiences breakdown and potentially more crime.
Social relationships, ties and interaction among neighbors, together with the willingness to intervene on behalf of their neighbors is called collective efficacy (Sampson et al. 1997). Clear et al. (2003) argue that high rates of residential mobility contribute to higher crime rates. Residential mobility creates neighbors who are isolated from each other with a low degree of integration, and this reduces collective efficacy and neighborhood stability. Incarceration can be theorized as a form of involuntary or coercive mobility. High rates of incarceration undermine the collective efficacy and social stability of neighborhoods, which could lead to a situation in which formal social control undermines informal social control and thus in which incarceration could lead to higher crime rates in marginalized and vulnerable neighborhoods.

Riley (2004, page 4) summarizes the thesis concisely:

*The coercive mobility hypothesis suggests that increased rates of incarceration may weaken the families and communities that offenders leave behind and actually reduce effective social control efforts and increase crime in neighborhoods characterized by high rates of incarceration. In effect, high rates of incarceration decrease residential stability as prisoners and family members are forced to relocate. Family members of prisoners often relocate to be nearer to an institutionalized loved one or in response to economic and child care contingencies associated with the removal of an incarcerated family member. Neighbors may also move to escape what is perceived as a dangerous environment. Those who remain in communities experiencing high rates of coercive mobility are left to cope without the assistance of those who have been relocated and in a context that features disrupted social networks and rising levels of alienation and distrust.*

Finally, the tendency of incarceration to decrease crime assumes that the individual offender has incentives but ignores that individuals in institutions which

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10 Researchers have also pointed to other related processes that exacerbate coercive mobility including the exacerbation of inequality and the crowding-out of preventative funding.
search, process and lock up criminals also have incentives. If an institution such as the criminal justice system is created to solve a social problem and the institution is successful, one might expect the disappearance of this particular institution. However, this is rarely the case as those whose welfare is dependent on maintaining the system continue to advocate for it. Elected officials such as prosecutors, judges, politicians and sheriffs campaign on tough-on-crime platforms. Police and their unions struggle for more political power and strive for more police. Prison guards and their unions struggle for more political power and strive for more prison guards. And so on. It is possible, therefore, to arrive at a situation of serious 'over-policing' whereby incarceration is driven as much by the workings of the criminal justice system as with crime itself.

Given the fact that there are well identified mechanisms that suggest reasons why incarceration can decrease crime (the mainstream perspective) as well as increase crime (the critical perspective), empirical examinations become all the more important for testing out these alternative hypotheses and providing some guidance for public policy. It is to such an examination that I now turn.

Section 3.4 of this chapter empirically examines the relationship between crime and incarceration at the neighborhood level and tests directly for the coercive mobility claim that in neighborhoods with high incarceration there is positive effect on future crime rates. Clear et al. (2003) is the only previous study of this relationship at the neighborhood level, and it examines 80 Tallahassee neighborhoods in 1996 and 1997. Clear et al. find that releases from prison in 1996 has a positive relationship with crime
rates in 1997 in all neighborhoods\textsuperscript{11}. They also find that prison admissions in 1996 have a positive relationship with crime in high incarceration neighborhoods but not in others.

The Clear et al. study of the impact of incarceration on crime rates and crime rates on incarceration is limited in that it only examines the effect of incarceration of one year on crime the next year and does not illuminate long term patterns. One might expect patterns of social disorganization to accumulate over much longer time horizons; hence, a longer term approach is worthwhile.

Accordingly, this chapter uses the same neighborhoods but employs a longer time horizon in examining the relationship between crime and incarceration between 1995 and 2002. I find strikingly more compelling evidence in favor of the coercive mobility thesis. First, I show a very clear non-linear pattern where incarceration has a different impact on different neighborhoods depending on their level of marginalization. Second, while Clear et al. (2003) find only weak mixed support for the coercive mobility theory because of the lack of data points, I find much stronger and robust evidence. By examining marginalization in three different ways, I am able to show that the dynamics of incarceration work very differently in marginalized communities versus other communities. I also find strong support of differential incarceration where correlates of marginalization, especially the percentage of Blacks in the neighborhood, has a strong correlation with incarceration over and above what may be merited by increased crime rates in such neighborhoods. The next section provides greater detail on data collection,\textsuperscript{11}

\textsuperscript{11} In this, the chapter finds some supportive evidence for the thesis provided by Levitt (2005).
discusses the limitation of such exercises, and addresses a particularly tricky choice in empirical analysis, i.e. the appropriate level of aggregation.

### 3.3 Data and Methodology

#### 3.3.1 Aggregation: the Bête Noire of Empirical Examinations.

At the outset, it is useful to briefly comment on a particularly vexed issue in the empirical literature: the problem of aggregation in crime and punishment statistics and the appropriate level at which to undertake the analysis. If one takes an atomistic approach where the only impacts of incarceration on crime are felt by and through the incarcerated individual, then the level of aggregation does not matter. This is implicitly the position taken by most scholars who have estimated this incarceration-crime relationship at the national or state level (Levitt 1996 and 2001). These scholars geared their level of aggregation to the levels at which legal frameworks are decided, thus implicitly assuming constant implementation and that there are no effects at the level of the community.

Many of the counter-tendencies that were examined (i.e. factors which lead incarceration effects to have a positive impact on crime), however, have the most salience at the neighborhood level. For example, the institutions that search, process, and lock up criminals operate at the local level and differ across neighborhoods. These institutions will thus mediate the legal framework through police enforcement differently, depending on their location. Similarly, incarceration impacts directly the social fabric of the communities where the people who are locked away come from. Greater levels of prison
cycling (what Clear et al. term 'coercive mobility'—admissions and releases from prisons) will destabilize the informal organization of the neighborhood which is the most effective form of crime control. Problems of poverty and inequality can be exacerbated by higher levels of incarceration, notably via the dampening of the employment prospects of the people incarcerated. The imagination of the people living in communities with high rates of incarceration is also affected by this state of affairs. If many people go in and out of prison all the time, the experience of incarceration may become 'normalized'. This may have contradictory effects on the deterrence factor in specific neighborhoods. On the one hand, higher rates of incarceration make the threat more salient and real. On the other hand, if the experience is normalized, the fear of incarceration may be dampened. Consequently, the deterrence factor may not play out in the same way in different neighborhoods, depending on which tendencies dominate. The combined weight of these arguments suggests that a disaggregated approach is best in examining the impact of incarceration on crime.

Similarly, while most incarceration policy is set at the federal or state level, incarceration impacts certain neighborhoods highly disproportionately. The Justice Mapping Center has created maps of various cities which shows the spatial concentration of incarceration. For example, in New York City, the historical Black neighborhoods of Harlem, Bedford-Stuyvesant, Brownsville and their surrounding areas supply over 50% of all prisoners while only housing 17% of New York's male population aged 16 to 59.\(^{12}\)

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Incarceration is also much targeted to a subset of the U.S. Population that tend to live in particular neighborhoods. Clear (2007) argues that there exist four loci of concentration: socio-economic status, gender/age, race/ethnicity, and place. Socio-economic status concentration means that prison is reserved for the poor. The gender/age loci means that prison is reserved for young men\textsuperscript{13}. The race/ethnicity loci means that prison is reserved for Black, Latino and Native Americans. By aggregating to the level of county, state or nation, it is possible that such effects could be glossed over or missed.

Conducting a statistical study at a higher level of aggregation (national, state, or county) makes it difficult to precisely examine the impacts occurring at the community level and the channels through which a lot of the tendencies and counter-tendencies operate. As Spelman (2005) says, “the heterogeneity of most local areas in income and social class, race, household structure, and age, suggests that variations within states [and counties] may be considerably greater than variation among them.” Aggregating will thus tend to reduce the range of variation of many of the variables of interest.

Despite these objections to aggregation, there may be problems using highly disaggregated data as well. Specifically, it is possible that crime ‘spills over’ from some identified neighborhoods to others. In such a scenario, focusing on the relationship between crime and incarceration in a particular neighborhood mismeasures the actual

\textsuperscript{13} “Those policy choices [of increasing incarceration] have had distinct implications for the way prison populations have come to reflect a concentrated experience among certain subgroups of the U.S. population—in particular, young black men from impoverished places. This concentration is, in some ways, the most salient characteristic of incarceration policy in the United States, since the social consequences of incarceration are dominantly felt among those people and in those places of concentration” (Clear 2007, 49).
effect. This noted, most work by sociologists and criminologists has long come to the conclusion that crime is predominantly a local phenomenon and that spillover effects are negligible (Bullock 1955, Pokorny 1965, Capone and Nicholas 1976, Baldwin and Bolton 1976, Hakim 1979, Hakim and Rengert 1981, Pettiway 1982, and Taylor 1998).

One may summarize these arguments and the related implications for empirical biases by looking at the implied reduced form equation of the relationship between crime and incarceration. The underlying model is that Incarceration, $I$, affects Crime, $C$.

$$ \hat{C}_i = \alpha_i + \beta_i I_i + \varepsilon_i $$

The tendencies implied by mainstream view suggest that $\beta$ is negative (more incarceration should lead to less crime). By contrast those counter-tendencies suggested by the critical view imply that $\beta$ is insignificant or positive (more incarceration, no reduction or more crime). An important question is whether $\hat{\beta}$ from a regression systematically under- or over-estimates the true, albeit reduced-form, value of $\beta$ depending on the level of aggregation.

Table 3.1 below explores this question with respect to the level of aggregation of the analysis and depicts the bias in $\hat{\beta}$ induced by the level of aggregation of the analysis. In the case of the tendencies implied by the mainstream view, a “bias toward zero” means that the analysis underestimates how effective incarceration is in reducing crime, and a “bias away from zero” means that the approach overestimates how effective incarceration is in reducing crime. In the case of the counter-tendencies, by contrast, a “bias toward
“Zero” suggests that the analysis misses ways in which incarceration can increase crime, and a “bias away from zero” means that the analysis exaggerates how much incarceration actually increases crime.

For example, analysis at the neighborhood level may underestimate the magnitude of the incapacitation effect because the analysis fails to take into account crime spillovers, i.e., an incarceration in one neighborhood may reduce crime in a different neighborhood. If the analysis is undertaken at the neighborhood level, then $0 > \beta^* > \beta$, i.e., the estimate of the incapacitation effect is biased toward zero.

As Table 3.2 indicates, the actual impact of the tendencies from the mainstream view are masked at the individual or neighborhood level because such levels of aggregation elide possible spillover effects when the analysis is disaggregated. Similarly, the empirical impact of counter-tendencies implied by the critical perspective are masked at high levels of aggregation. This is because the crime-inducing effects of the counter-tendencies are felt most strongly at a disaggregated level, as argued above.

Given this table, it is possible to make some sense of the wide variety of estimates of the relationship between crime and incarceration. The largest negative (i.e. deterrent and incapacitation) estimates of incarceration on crime typically come from national time-series analyses (Devine et al. 1988, Marvell and Moody 1997). County level estimates are on average lower than state level estimates, which in turn are lower than national level estimates (Levitt 1996 and 2001, Spelman 2000, Liedka et al. 2006). While a strong negative relationship is present at the national level, this relationship...
mostly disappears at the county level (Kovandzic and Sloan 2002, Kovandzic and Vieraitis 2006). Given previous the discussion, this is not entirely surprising. If the more complex sociological narratives discussed above operate at local levels, using finer grained data will pick up much more variation, while the standard deterrence effect will operate at much larger levels of aggregation.

### 3.3.2 Simultaneity

Another important issue is that of simultaneity bias. Incarceration levels are likely influenced by crime levels, and thus probably not exogenous. This gives rise to a system of simultaneous equations, where it is not even clear that the relationships both go in the same direction. From the viewpoint of deterrence, crime should increase incarceration, *ceteris paribus*, but incarceration in turn should decrease crime. Estimating an equation linking the two variables without taking this into account can lead to a biased estimate. I adopt a standard (if rudimentary) procedure to deal with this by using the lag of incarceration or prison cycling as the dependent variable.

Equation 1 below provides the baseline specification of the empirical model. I use a fixed effects model to regress crime per capita reported in a neighborhood and the

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14 Spelman (2005) argues that “[t]here is a reason why regression analysis of aggregate data is the jackknife in the policy analyst’s toolkit. It is difficult to see what alternative techniques are available for parceling out effects among competing explanations. But if regression results are to converge on a defensible estimate, they must (at least) respond to these two, critical problems: They must measure effects at the lowest level of aggregation possible and they must, somehow, solve the simultaneity problem” (Spelman 2005, 137).
variable of interest on the percentage of people incarcerated in a neighborhood, controlling for several correlates.

Formally, the basic specification used to estimate the effect of incarceration on crime is:

\[ Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 Z_{it} + \alpha_i + \gamma_t + \epsilon_{it} \quad (1) \]

where the subscript \( i \) corresponds to neighborhoods, and \( t \) indexes years. \( Y \) is the dependent variable of interest, crime per capita, \( X \) is the regressor of interest (prison admissions or coercive mobility) and \( Z \) is a vector of controls including demographic and social characteristics. Year and neighborhood fixed effects are included in all models.

The data are organized in a panel format for a seven-year period between 1995 and 2002. 1997 was dropped from the panel since it was missing crime data. Data were collected from different sources: The neighborhoods were created by Clear et al. (2003), prison admissions and prison releases were provided by the Florida Department of Corrections for the years 1995 to 2002, the Tallahassee Police Department provided the crimes known to police, and all other data comes from the 1990 and 2000 censuses.¹⁵

These neighborhoods were mapped in three steps.¹⁶ In the first step, completed in 1997, a survey was conducted of all local neighborhood associations registered with the city of Tallahassee Neighborhood Services. All registered associations were asked to

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¹⁵ The Tallahassee dataset which included total crime, prison admissions and releases by neighborhood was constructed by Kristin Scully and emailed to me by Natasha Frost. Todd Clear explained how the neighborhoods were constructed and gave me information on how the neighborhoods were matched to the 1990 census track and block groups.

¹⁶ For a more detailed description of the construction of the Tallahassee neighborhoods, see Clear, Rose, Waring and Scully 2003.
identify the boundaries of their association. Responses were mapped and coded and were compared with the boundaries determined by the Tallahassee Neighborhood Services. The second step involved a case-by-case review of geographic features in problematic areas. The third step was completed with the assistance of the Tallahassee Police Department and compared neighborhood boundaries to established police crime-reporting areas and 1990 U.S. census tract and block groups. This resulted in the identification of 80 different neighborhoods in the city of Tallahassee with populations in those neighborhoods varying between 249 and 4,538 (Clear et al. 2003).

The 2000 U.S. census had some changes in the tract and block groups of Tallahassee. The 2000 census tract and block groups map were used with the 1990 census tract and block groups map to identify these changes and match the 2000 census reporting to the 80 Tallahassee neighborhoods.

### 3.3.3 Variables

*Crimes known to police, 1995 to 2002.* The Tallahassee Police Department provided crime statistics by geographic location that were based on the Tallahassee Police Department's reporting areas. All offenses reported within the city limits were mapped by neighborhood. The offenses include homicide, sexual battery, other sex offenses, strong-arm robbery, armed robbery, commercial burglary, residential burglary, auto burglary, auto theft, aggravated battery with firearm only, aggravated assault with firearm only, loitering and prowling, and suspicious incident.
**Prison admissions and prison releases.** The Florida Department of Corrections provided data files for all offenders admitted to serve prison sentences who listed Leon County as their place of residence for each year between 1995 and 2002. These data files contained addresses which were mapped and matched with the different Tallahassee neighborhoods. The Florida Department of Corrections also provided data files for all offenders' Inmate Release Plans who were being released back into Leon County for each year between 1995 and 2002. The addresses were mapped and matched with the 80 Tallahassee neighborhoods. While cleaning up the data, I dropped two neighborhoods because they had missing prison admissions, leaving 78 neighborhoods.

Demographic data comes from 1990 and 2000 U.S. census reports and the Summary File 3A was downloaded from the Inter-university Consortium for Political and Social Research (ICPSR). Demographic variables included in the analysis were linearly interpolated values from the census of overall population, Black population, Latino population, employed population, median household income, population with no high school diploma, population with a bachelors degree, male youth (<18) population, population of single mothers, and population of residents living below the poverty level. These were all converted into per capita numbers.

Table 3.2 shows the summary statistics of the data set. Crime varies widely, ranging from zero reported crimes to 35 crimes per 100. Similarly, admissions vary as well, from a low of zero admissions in the neighborhood in that year to over 2 per 100.
3.4 Results

A cursory examination of Tallahassee in the period of the mid-1990s to 2002 might provide a bright picture of criminal justice policy in support of the mainstream perspective. Much like the rest of the U.S. and Canada, the crime rate dropped drastically. Figure 1 shows how the crime rate in Tallahassee decreased between 1995 and 2002. This was accompanied with an increase in incarceration rates in the city. Figure 2 shows that the incarceration rate in Tallahassee increased between 1995 and 2002. At first glance, it would seem that incarceration was working during this period to reduce crime systematically.

However, for the reasons elucidated above, there may be neighborhood effects that are not seen when one looks at aggregate trends. One can see this in Table 3. The first column of Table 3 shows the results of running equation (1) to examine the contemporaneous relationship between crime and prison admissions for all neighborhoods in the city of Tallahassee. The coefficient of prison admissions is positive but it is not statistically significant and not negative as one might expect from the aggregate trends shown in Figure 1. Column (2) shows the result of regressing crime on incarceration in the previous year. First, and somewhat surprisingly, there is a significant positive coefficient: one percentage point increase in prison admissions per capita in the past year is associated with an increase in per capita crime of 1.4 percentage points in the current period. Column (3) tests for non-linearities in the relationship by introducing a squared term for the lagged admissions per capita. The coefficients remain positive, but not statistically significant.
As is evident from the discussion in Section I, while admissions or incarceration is an important variable, one may be equally interested in the relationship between prison recycling and crime according to the coercive mobility thesis. Figure 3 provides some basic evidence for the contention that admissions in one year is strongly positive correlated \((r = 0.65)\) with releases in the previous year, suggesting some level of recycling among populations.

Accordingly, columns (4) and (5) in Table 3 repeat the exercise for columns (2) and (3), except that I replace the admissions per capita with the prison recycling population per capita (i.e. admissions plus releases per capita). While I find a positive correlation in column (4), column (5) provides the most intriguing suggestion. Specifically, there is some suggestive evidence of a non-linear relationship, with higher incarceration having a crime-reducing effect at low levels of prison recycling but a crime-increasing effect at higher levels. This is important evidence in favor of the coercive mobility thesis. It is also interesting to look at the impact of other correlates. As might be expected, in all specifications many of the correlates have a significant and positive relationship with crime rates in accordance with our priors. These include the percentage of households in the neighborhood which are headed by females with children, the percentage of residents who are lacking a high school diploma, the percentage of residents who are both youth and male, the percentage of residents who live in poverty, and the percentage of residents who are Black.

Table 4 is a more direct test of the coercive mobility thesis. To review, such an argument suggests that high mobility in marginalized neighborhoods has a destabilizing
effect and decreases the collective neighborhood efficacy of maintaining social order through informal control. In order to operationalize the difference between marginalized and other neighborhoods, I stratify the sample in three different ways. First, I define a marginalized neighborhood as one that is in the top quintile of average incarceration over the period 1995 to 2002\textsuperscript{17}. Columns (1) and (2) in Table 4 examine the relationship between crime rates and incarceration rates in low incarceration and high incarceration neighborhoods respectively, using this cut-off. As is evident, there is a positive but insignificant correlation between crime rates in one year and incarceration rates in the previous year: a 1.0 percentage point increase in incarceration rates is associated with a 0.7 percentage point increase in crime rates in the following year. However, there is a strong and statistically significant correlation between crime in one year and lagged incarceration in the previous year in high incarceration neighborhoods: a 1.0 percentage point increase in incarceration in one year is associated with a 2.0 percentage point increase in crime rates in the following year. This is strong evidence in favor of the coercive mobility thesis. Columns (3) and (4) and columns (5) and (6) repeat this exercise using the percentage of the population that is Black and the percentage of single mothers in the population. Once again, the effects are dramatically different between the two sub-samples. In the more marginalized communities, incarceration in one year leads to a rise in crime in the next, in direct contradiction to the deterrence thesis. In non-marginalized communities, there is no strong statistical evidence in either direction. In high Black population neighborhoods, a one percentage point increase in incarceration in one year is

\textsuperscript{17} I drop two neighborhoods that do not have information on incarceration rates in some years.
associated with a 2.1 percentage point increase in crime in the next year. In low Black population neighborhoods, by contrast, a one percentage point increase in incarceration in one year is associated with a statistically insignificant 0.2 percentage point increase in crime in the following year. Similarly, in neighborhoods with a high percentage of single mothers, a 1.0 percentage point increase in incarceration is associated with a 1.9 percentage point increase in crime the following year, while a 1.0 percentage point increase in incarceration in neighborhoods with low percentages of single mothers is associated with a statistically insignificant 1.1 percentage point increase in crime the following year. The positive impacts of lagged admissions per capita on crime rates thus range from roughly twice to eight times as high in marginalized neighborhoods as compared to non-marginalized areas, depending on the definition of marginalization. In short, it would be reasonable to suggest that over the period studied, rising incarceration rates were ineffectual in reducing crime in the next period and may indeed have served to undermine forms of informal social control that could have been beneficial in this regard.

3.5 A Short Discussion on an Alternative Model of Incarceration

In this section, I offer some decidedly speculative discussion on alternative models of understanding policing and incarceration given the somewhat unusual findings of the previous section. In Dhondt (2011), I examine and endorse a large literature which suggests that the logic of mass incarceration is better seen as a political management device whereby disaffected populations are disciplined 'outside' the normal methods available under capitalism. Such an argument would suggest that incarceration is
far more likely to be correlated with restive populations than with actual crime on the ground. Table 5 provides additional evidence for such a position. It shows the correlation between admissions and all the correlates I have examined so far. As is evident, crime rates are only weakly correlated with incarceration (r=0.31), especially when compared with other social and demographic correlates of admissions such the percentage of Black population, (r=0.69) the percentage of the population with no high school diploma (r=0.68) and the percentage of female headed households with children (r=0.44).

Figure 4 shows the scatter plot between crime per capita and the percentage of Black population in 2002 in the first panel and the scatter plot between admissions per capita and the percentage of Black population in 2002 in the second panel. Figure 5 repeats this scatter, this time showing the relationship between crime, admissions and the percentage of the population with no high school education. The figures suggest there are significantly higher levels of incarceration in the Black neighborhoods and the neighborhoods with the highest percentage of people with no high school diploma, although it is not clear that these are neighborhoods where crime is concentrated.

Table 6 shows the difference in the admission and crime per capita in neighborhoods with high Black percentages and high percentages of people with no high-school diplomas. As is clear in this exposition, crime rates are higher by between 1.5 and 2 times in the neighborhoods with the highest Black percentage. Incarceration rates by contrast are higher by between 5 and 9.5 times in these neighborhoods. Similarly, crime rates are higher by between 1.5 and 2.5 times in the neighborhoods with the highest
percentage of individuals with no high school. Admission rates, by contrast, are higher from 4 to 7.5 times. This differential incarceration (as I term it) is _prima facie_ evidence of a dysfunctional criminal justice system that over-polices in some neighborhoods, particularly those that are marginalized and poor. Dhondt (2011) provides a more extensive discussion on why this might be the case.

### 3.6 Conclusions and Further Research

This chapter attempts to estimate the effect of adding prisoners on crime per capita and the effect of prison cycling on crime per capita at the neighborhood level in the city of Tallahassee. I provide evidence that increasing incarceration does not have a negative effect on crime in neighborhoods but instead has a positive effect in certain high crime areas. Similarly, prison cycling — the mill of adding and releasing prisoners — also has a positive effect on crime in marginalized neighborhoods. These results are consistent with the other specifications where I find that increased incarceration leads to increased crime\(^{18}\). They provide support for the theory that there are crime-enhancing counter-tendencies which operate at the neighborhood level such as the coercive mobility effect. This should caution against the continued use of incarceration as the first response to crime and other social problems since incarceration might have the opposite of the intended effect.

\(^{18}\) Other regressions are available from the author on request.
My results of differential incarceration point to an over-incarceration in marginalized neighborhoods. Crime is weakly correlated with incarceration and other variables such as the percentage of the residents who are Black, lack a high school diploma and the percentage of households who are headed by females with children are strongly correlated with incarceration. Such a finding suggests the need to seriously reconsider the importance of and the social and demographic reasons driving policing, sentencing and incarceration.

This chapter points to the need for further research. Further research should test the external validity of the positive impact of incarceration rates on crime rates in different localities at the neighborhood level. Equally important, there is little existing research as to why certain neighborhoods see disproportionately high levels of incarceration even though crime rates themselves may not be extraordinary. Such examinations will go some way to help create more humane and effective approaches to criminal justice in the United States of America.
Table 3.1: Bias in $\beta^*$ by Aggregation of Analysis

<table>
<thead>
<tr>
<th></th>
<th>Individual</th>
<th>Level of Aggregation</th>
<th>State</th>
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</thead>
<tbody>
<tr>
<td><strong>Tendencies: Incarceration decreases crime ($\beta&lt;0$)</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Deterence</td>
<td>biased toward 0</td>
<td>biased toward 0</td>
<td>unbiased</td>
</tr>
<tr>
<td>Incapacitation</td>
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<td>biased toward 0</td>
<td>unbiased</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>biased away from 0</td>
<td>biased away from 0</td>
<td>unbiased</td>
</tr>
<tr>
<td><strong>Counter-tendencies: Incarceration increases crime ($\beta&gt;=0$)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coercive mobility</td>
<td>unbiased</td>
<td>Unbiased</td>
<td>biased toward 0</td>
</tr>
<tr>
<td>Scarring</td>
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</tr>
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<td>school of crime</td>
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<td>Unbiased</td>
<td>biased toward 0</td>
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<td>0.05594</td>
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<td>Male Youth</td>
<td>560</td>
<td>0.1494</td>
<td>0.1074</td>
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</table>

All variables are per capita.
Table 3.3: Crime, Incarceration and Prison Cycling

<table>
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<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
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</thead>
<tbody>
<tr>
<td>Prison Admissions (%)</td>
<td>0.204</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.555)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Lagged Prison Admissions (%)</td>
<td>1.382**</td>
<td>0.943</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(0.582)</td>
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<td></td>
</tr>
<tr>
<td>Lagged Prison Admissions (%)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>squared</td>
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<td></td>
<td>(81.93)</td>
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<td></td>
</tr>
<tr>
<td>Lagged Recycle Admissions (%)</td>
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<td></td>
<td></td>
<td>0.644*</td>
<td>-0.521</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>(0.382)</td>
<td>(0.802)</td>
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<tr>
<td>Lagged Recycle (%) squared</td>
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<td></td>
<td></td>
<td>45.57*</td>
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</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>(27.60)</td>
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</tr>
<tr>
<td>Black (%)</td>
<td>0.00298</td>
<td>0.0145</td>
<td>0.0151</td>
<td>0.0125</td>
<td>0.0178</td>
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<td>(0.0303)</td>
<td>(0.0304)</td>
<td>(0.0305)</td>
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<td>Latino (%)</td>
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<td>0.168</td>
<td>0.166</td>
<td>0.170</td>
<td>0.160</td>
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<td>(0.109)</td>
<td>(0.124)</td>
<td>(0.124)</td>
<td>(0.125)</td>
<td>(0.124)</td>
</tr>
<tr>
<td>Employed(%)</td>
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<td>0.0357</td>
<td>0.0406</td>
<td>0.0500</td>
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<td></td>
<td>(0.0388)</td>
<td>(0.0442)</td>
<td>(0.0443)</td>
<td>(0.0445)</td>
<td>(0.0447)</td>
</tr>
<tr>
<td>Low Income (%)</td>
<td>-0.0438*</td>
<td>-0.0203</td>
<td>-0.0209</td>
<td>-0.0216</td>
<td>-0.0199</td>
</tr>
<tr>
<td></td>
<td>(0.0249)</td>
<td>(0.0282)</td>
<td>(0.0283)</td>
<td>(0.0284)</td>
<td>(0.0283)</td>
</tr>
<tr>
<td></td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
<td>Column 4</td>
<td>Column 5</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Single Mother (%)</td>
<td>0.449***</td>
<td>0.297</td>
<td>0.307</td>
<td>0.293</td>
<td>0.321*</td>
</tr>
<tr>
<td></td>
<td>(0.164)</td>
<td>(0.187)</td>
<td>(0.189)</td>
<td>(0.188)</td>
<td>(0.188)</td>
</tr>
<tr>
<td>No High School (%)</td>
<td>0.544***</td>
<td>0.336***</td>
<td>0.332***</td>
<td>0.344***</td>
<td>0.344***</td>
</tr>
<tr>
<td></td>
<td>(0.0789)</td>
<td>(0.0908)</td>
<td>(0.0913)</td>
<td>(0.0911)</td>
<td>(0.0909)</td>
</tr>
<tr>
<td>Male Youth (%)</td>
<td>0.254***</td>
<td>0.171***</td>
<td>0.172**</td>
<td>0.179***</td>
<td>0.184***</td>
</tr>
<tr>
<td></td>
<td>(0.0517)</td>
<td>(0.0591)</td>
<td>(0.0592)</td>
<td>(0.0596)</td>
<td>(0.0596)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.0605**</td>
<td>0.0602*</td>
<td>0.0606*</td>
<td>0.0504</td>
<td>0.0507</td>
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<tr>
<td></td>
<td>(0.0274)</td>
<td>(0.0309)</td>
<td>(0.0309)</td>
<td>(0.0316)</td>
<td>(0.0315)</td>
</tr>
<tr>
<td>Observations</td>
<td>546</td>
<td>390</td>
<td>390</td>
<td>390</td>
<td>390</td>
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<tr>
<td>R-squared</td>
<td>0.793</td>
<td>0.818</td>
<td>0.818</td>
<td>0.817</td>
<td>0.818</td>
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<tr>
<td>Standard errors in parentheses</td>
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<td></td>
</tr>
</tbody>
</table>

*** p<0.01, ** p<0.05, *p<0.1

All equations include year and neighborhood fixed effects. Columns (1) regresses contemporaneous crime and prison admissions for all neighborhoods. Column (2) regresses crime and lagged prison admissions for all neighborhoods. Columns (3) adds a quadratic term to lagged for all neighborhoods. Columns (4) and (5) repeat the exercise of columns (2) and (3) using prison cycling rather than admissions as the independent variable.
### Table 3.4: Regression Results, Crime Rates and Prison Admissions.

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Incarceration Neighborhood</td>
<td>0.738</td>
<td>2.080**</td>
<td>0.244</td>
<td>2.140**</td>
<td>1.142</td>
<td>1.918*</td>
</tr>
<tr>
<td>High Incarceration Neighborhood</td>
<td>(1.035)</td>
<td>(0.840)</td>
<td>(0.919)</td>
<td>(0.904)</td>
<td>(0.711)</td>
<td>(1.018)</td>
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<tr>
<td>Low Black Population Neighborhood</td>
<td>-0.00312</td>
<td>0.139</td>
<td>0.0164</td>
<td>0.241**</td>
<td>-0.00597</td>
<td>0.0377</td>
</tr>
<tr>
<td>High Black Population Neighborhood</td>
<td>(0.0284)</td>
<td>(0.196)</td>
<td>(0.0335)</td>
<td>(0.0960)</td>
<td>(0.0339)</td>
<td>(0.0724)</td>
</tr>
<tr>
<td>Low Single Mother Neighborhood</td>
<td>-0.0185</td>
<td>1.984***</td>
<td>-0.0346</td>
<td>1.497***</td>
<td>0.287**</td>
<td>0.133</td>
</tr>
<tr>
<td>High Single Mother Neighborhood</td>
<td>(0.115)</td>
<td>(0.473)</td>
<td>(0.117)</td>
<td>(0.542)</td>
<td>(0.137)</td>
<td>(0.321)</td>
</tr>
<tr>
<td>Lagged Admissions Per Capita</td>
<td>0.0250</td>
<td>0.257**</td>
<td>-0.0130</td>
<td>0.0200</td>
<td>0.0956*</td>
<td>-0.0875</td>
</tr>
<tr>
<td>Black (%)</td>
<td>(0.0484)</td>
<td>(0.124)</td>
<td>(0.0479)</td>
<td>(0.127)</td>
<td>(0.0512)</td>
<td>(0.103)</td>
</tr>
<tr>
<td>Employee (%)</td>
<td>0.0104</td>
<td>0.0437</td>
<td>-0.0121</td>
<td>0.0455</td>
<td>0.00570</td>
<td>0.109</td>
</tr>
<tr>
<td>Low Income (%)</td>
<td>(0.0267)</td>
<td>(0.179)</td>
<td>(0.0273)</td>
<td>(0.141)</td>
<td>(0.0325)</td>
<td>(0.0771)</td>
</tr>
<tr>
<td>Male Youth (%)</td>
<td>0.347*</td>
<td>-0.925</td>
<td>0.402**</td>
<td>-0.639</td>
<td>0.648**</td>
<td>-0.685*</td>
</tr>
<tr>
<td>No High School (%)</td>
<td>(0.180)</td>
<td>(0.832)</td>
<td>(0.187)</td>
<td>(0.777)</td>
<td>(0.261)</td>
<td>(0.388)</td>
</tr>
<tr>
<td>Male Youth (%)</td>
<td>0.535***</td>
<td>-0.326</td>
<td>0.552***</td>
<td>-0.167</td>
<td>0.626***</td>
<td>-0.106</td>
</tr>
<tr>
<td>Constant</td>
<td>(0.0991)</td>
<td>(0.399)</td>
<td>(0.107)</td>
<td>(0.353)</td>
<td>(0.125)</td>
<td>(0.182)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.192***</td>
<td>0.0455</td>
<td>0.126**</td>
<td>0.215</td>
<td>0.206***</td>
<td>-0.0351</td>
</tr>
<tr>
<td>Constant</td>
<td>(0.0555)</td>
<td>(0.240)</td>
<td>(0.0574)</td>
<td>(0.165)</td>
<td>(0.0675)</td>
<td>(0.191)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.0437</td>
<td>-0.171</td>
<td>0.0750**</td>
<td>-0.156*</td>
<td>-0.0217</td>
<td>0.0635</td>
</tr>
<tr>
<td>Male Youth (%)</td>
<td>(0.0351)</td>
<td>(0.173)</td>
<td>(0.0360)</td>
<td>(0.0867)</td>
<td>(0.0394)</td>
<td>(0.0588)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.821</td>
<td>0.860</td>
<td>0.803</td>
<td>0.843</td>
<td>0.835</td>
<td>0.813</td>
</tr>
</tbody>
</table>

All equations include year and neighborhood fixed effects. Column (1) limits the sample to the neighborhoods in the bottom 4 quintiles of incarceration rates over the period. Column (2) limits the sample to the neighborhoods in the top quintile of incarceration rates over the period. Column (3) limits the sample to the neighborhoods in the bottom 4 quintiles of Black population over the period. Column (4) limits the sample to the neighborhoods in the top quintile of Black populations over the period. Column (5) limits the sample to the neighborhoods in the bottom 4 quintiles of rates of single mothers over the period. Column (6) limits the sample to the neighborhoods in the top quintile of rates of single motherhood over the period.
<table>
<thead>
<tr>
<th>Prisons Admissions (%)</th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Black (%)</td>
<td>.69</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime (%)</td>
<td>.19</td>
<td>.23</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poverty (%)</td>
<td>.23</td>
<td>.30</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed (%)</td>
<td>-.40</td>
<td>-.56</td>
<td>-.08</td>
<td>-.16</td>
<td>1</td>
</tr>
<tr>
<td>Bachelor Degree (%)</td>
<td>-.42</td>
<td>-.61</td>
<td>-.25</td>
<td>-.55</td>
<td>.69</td>
</tr>
<tr>
<td>No High School (%)</td>
<td>.65</td>
<td>.62</td>
<td>.36</td>
<td>.32</td>
<td>-.39</td>
</tr>
<tr>
<td>Single Mother (%)</td>
<td>.47</td>
<td>.55</td>
<td>.039</td>
<td>.14</td>
<td>-.23</td>
</tr>
<tr>
<td>Latino (%)</td>
<td>-.23</td>
<td>-.28</td>
<td>.073</td>
<td>.39</td>
<td>.084</td>
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</table>
Table 3.6: Differential Incarceration in Black and Low Education Neighborhoods

<table>
<thead>
<tr>
<th>Year</th>
<th>Other</th>
<th>High Black Percentage</th>
<th>Ratio</th>
<th>Other</th>
<th>High Percentage of Population with No High School</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Crime</td>
<td>0.05</td>
<td>0.09</td>
<td>1.88</td>
<td>0.05</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>Admissions</td>
<td>0.00</td>
<td>0.01</td>
<td>7.19</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>1996</td>
<td>Crime</td>
<td>0.04</td>
<td>0.07</td>
<td>1.75</td>
<td>0.04</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Admissions</td>
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<td>0.01</td>
<td>8.48</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>1998</td>
<td>Crime</td>
<td>0.04</td>
<td>0.06</td>
<td>1.66</td>
<td>0.04</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Admissions</td>
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<td>0.01</td>
<td>9.37</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>1999</td>
<td>Crime</td>
<td>0.03</td>
<td>0.06</td>
<td>1.67</td>
<td>0.03</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Admissions</td>
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<td>0.01</td>
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<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>2000</td>
<td>Crime</td>
<td>0.03</td>
<td>0.05</td>
<td>1.49</td>
<td>0.03</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
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<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>2001</td>
<td>Crime</td>
<td>0.03</td>
<td>0.05</td>
<td>1.78</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Admissions</td>
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<td>0.01</td>
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<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>2002</td>
<td>Crime</td>
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<td>0.05</td>
<td>1.79</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>Admissions</td>
<td>0.00</td>
<td>0.01</td>
<td>6.51</td>
<td>0.00</td>
<td>0.01</td>
</tr>
</tbody>
</table>
Figure 3.1: Crime (Per Capita)

Figure 3.2: Prison Admissions (Percentage)
Figure 3.3: Scatter plot of admissions per capita against lagged releases per capita

Note: x axis represents “Lagged releases per Capita” and y axis represents “Admissions per Capita”
Figure 3.4: Crime (per capita) by percentage of Black population in neighborhood

Figure 3.5: Prison admissions (%) by percentage of Black population in neighborhood

*Note: Figure 3.4 and Figure 3.5 exist above side by side for reader’s convenience
Figure 3.6: Crime (per capita) by percentage of adult residents in neighborhood with no high school diploma

Figure 3.7: Prison admissions (%) by percentage of adult residents in neighborhood with no high school diploma

*Note: Figure 3.6 and 3.7 exist above side by side for reader’s convenience*
CHAPTER 4
THE LOGIC OF THE WHIP: MASS INCARCERATION AS LABOR DISCIPLINE IN THE NEOLIBERAL SOCIAL STRUCTURES OF ACCUMULATION

4.1 Introduction

Workers may be motivated by positive incentives, such as good working environment and high wages, or by negative sanctions, such as the threat of job loss. The discipline of the whip refers to the use of negative sanctions to elicit worker effort on the job. It calls for the removal of the kind of job protection and grievance provisions negotiated by unions, and for the reduction of unemployment compensation and other benefits available to workers who have lost their jobs, in order to reduce the availability and desirability of any alternative to disciplined performance on the job. The idea is to make the labor market—and particularly the threat of unemployment—do the work of disciplining workers. Unlike the trickle-down logic, which sweetens incentives for the rich, the logic of the whip favors the stick over the carrot in motivating workers.

—Samuel Bowles, David Gordon and Thomas Weisskopf, 1990

The social structures of accumulation (SSA) approach has served as one of the most powerful and widely applicable analytical prisms deriving from heterodox economic traditions. This approach seeks to understand how the socioeconomic institutions of a given economy manage inherent relationships of conflict and power in capitalist society and how these institutions provide the structural stability that allows for
capitalist accumulation (Gordon et al. 1982, Bowles et al. 1990, Kotz et al. 1994). In the recent past, interest in this approach has grown (McDonough et al. 2010), partly as a result of the now apparent fragility of what has been termed the "neoliberal social structure of accumulation." A wide range of research has sought to understand particular institutional configurations in this period, such as the nature of financialization, the importance of global production linkages and so on. Yet there has been limited attention to one key feature of the neoliberal SSA in the United States: the rise of an oppressive and institutionalized racism in the form of mass incarceration since around 1980.

I wish to argue three things in this chapter. First, mass incarceration should be seen as a central institution in the genesis and perpetuation of the neoliberal SSA in the United States. This implies that those interested in understanding the neoliberal SSA in the U.S. need to understand the central role of mass incarceration in this SSA. Second, I want to suggest that the SSA framework is a deeply useful way to understand the rise and persistence of mass incarceration in the United States. Those who want to understand

20 Loic Wacquant (2010) has criticized the use of the term ‘mass incarceration’ and proposes instead using the term ‘hyper incarceration.’ Wacquant argues that mass incarceration is a misleading term because what exists in the U.S. today is not mass incarceration, as it does not concern large swaths of masses but instead is finely targeted by class, race and place. I partially agree with this critique of the term ‘mass incarceration.’ ‘Prison Industrial Complex’ is also often used as an alternative to ‘mass incarceration.’ Christian Parenti (1999) critiques the use of ‘Prison Industrial Complex’ because it suggests an interest group approach which looks for the direct involvement of specific economic interests instead of looking at the class system as a whole. Lacking a better alternative, I will continue to use the term ‘mass incarceration’ because it has been used by scholars including Garland (2000), Wacquant (2001), Western (2005), Travis (2005) and Clear (2008), and because it emphasizes the centrality of this institution in the neoliberal period in a way that hyper incarceration does not.
21 A notable exception is Carlson and Michalowski (2010), but, as I suggest in this chapter, they too elide key channels by which mass incarceration and neoliberal forms of accumulation are mutually reinforcing.
mass incarceration should seek to examine it from an SSA perspective or risk missing the logic of mass incarceration and the role it plays in contemporary U.S. capitalist society. Finally, I want to contest the claims of scholars, such as David Garland (2001), Loic Wacquant (2009) and Nils Christie (1994), who have argued that European nations “emulate patterns of crime control first developed in the USA” (Garland 2001, ix). I argue that this is not the case and that mass incarceration is best understood as supportive of neoliberalism in the particular context of the United States and not neoliberalism in general.

In suggesting that U.S. neoliberalism is buttressed by mass incarceration, I am not subscribing to a crude functionalism, a claim that mass incarceration exists simply because it is 'necessary' for the current patterns of capitalist accumulation in the United States. Rather, I am arguing that mass incarceration and U.S. neoliberalism are mutually reinforcing in at least six ways.

First, the rise in mass incarceration may be seen as an attempt to re-establish the racial order in the neoliberal SSA in response to the breakdown of a well-established racial hierarchy at the end of the preceding SSA – a destabilization that was explicitly framed by the actors in class terms. The previous regulated SSA led to the demise of legal segregation, as by the latter part of that SSA oppressed groups were strengthened and were able to fight for their rights. This fight – part of the rising of the exploited and oppressed – undermined the postwar SSA and led to its demise, which posed a dangerous situation for capital: African Americans were at the leading edge of class struggle, and the long-standing racial division of the working class broke down with the end of Jim
Crow segregation in the middle of the 1960s. By the early 1980s, a new SSA had formed in response to the demise of the previous SSA, and a new racial hierarchy was established to maintain racial divisions within the working class. Mass incarceration has created and strengthened this new racial division, a new cross-class alliance between “poor” whites and elites in the neoliberal SSA. This helps explain why working-class whites have tolerated the stagnating wages, poor working conditions and rising inequality associated with the neoliberal SSA in the U.S.

Second, mass incarceration is intimately linked with the rise in residential segregation in urban areas since the 1970s, and both serve to manage the social and economic inequalities generated by the neoliberal era. Toward the end of the postwar SSA, African Americans had migrated to large industrial cities, and they had started working and organizing in urban industries. In response to the profit squeeze, capital closed those urban factories and moved out, first to lower cost locales within the U.S. and then abroad. This process of actual or perceived capital strike, which characterizes neoliberalism, led to the decimation of the main occupational sectors in which African Americans attained good jobs, namely the industrial sector and the state. As a result, African Americans faced massive levels of unemployment. Mass incarceration can be seen as the new way for the neoliberal SSA to keep unemployed and marginally attached African Americans under control. Thus, residential segregation, marginal labor

22 Not only urban factories closed, but also rural factories. See e.g. Huling (2002) and Bluestone and Harrison (1984).
attachment and mass incarceration form a complex in which populations that do not fit into the labor force are effectively managed.

Third, mass incarceration serves to replace the welfare state in the management of economic stability. The votaries of neoliberalism demanded the end of the welfare state, partly to reduce the social wage and hence increase labor discipline, all the while claiming it was primarily to induce efficiency. This has left the poor and the marginally attached with no way to survive and has created an entire generation of underserved U.S. workers with no opportunities. Such a situation can be extremely disruptive to capital accumulation; mass incarceration serves to manage this situation. Where alternative social institutions may have sought to ameliorate the economic insecurity inherent in capitalism, mass incarceration has taken up this regulatory function by separating out, then locking up those most marginalized and vulnerable to the vicissitudes of capitalist growth.

Fourth, accumulation in the post-Jim Crow world requires a new basis for racial hierarchy that is compatible with the individualism central to neoliberal ideology. Mass incarceration serves to create a new ascriptive category, one that is formally based on individual acts while still managing populations.

Fifth, by magnifying the threat of crime in the minds of the working class, mass incarceration helps legitimate the defense of property as the overriding responsibility of the state.23

23 Crime and fear of crime are not only restricted to property crime but also apply to violent crime and drug offenses. Still, I argue that the fear of crime helps legitimize a defense of private property.
Finally, mass incarceration is used to disrupt the working-class movement. The capital-labor relationship is at the center of any SSA, and a militant working-class movement contributed to the end of the postwar SSA. Neoliberalism involved crushing labor activism on many fronts. The African American workers were the most militant, class-conscious and radical segment of the working class, thus de-legitimizing these African American workers—especially those involved in groups such as Revolutionary Action Movement, League of Revolutionary Black Workers, and the Black Panther Party—was an important component of the process of defeating the working-class movement.

If we wish to understand the recent phenomenon of mass incarceration, the SSA framework provides a way to situate the logic of incarceration within the logic of capitalist accumulation. There is growing evidence that mass incarceration does not reduce crime (Clear 1996, Western 2006, Clear 2008, Dhondt 2011a and 2011b). Wacquant (2009), Parenti (1999) and Gilmore (2007) argue that social scientists need to break away from focusing on the crime-punishment paradigm in order to examine the rise and continuation of mass incarceration, especially the vast over-representation of Blacks in the prison population. This chapter argues that analyzing mass incarceration through the SSA lens helps illuminate the dynamics of mass incarceration in capitalist society. Given the immense costs associated with the incarceration of millions of people, understanding how the prison system functions within contemporary class and racial structures is an imperative task.
In what follows, I provide an analysis of mass incarceration and the ways in which it has developed in conjunction with and in support of the neoliberal SSA. The exact dating of the neoliberal SSA remains contentious, but the period of consideration is roughly from 1980 to present. The purpose of this essay is to synthesize research by other scholars coming from other frameworks and to relate this research to the claim that the growth of the neoliberal mode of accumulation and the rise of the mass incarceration are mutually intertwined. I do not undertake any formal regression analysis or modeling, leaving that for more targeted research in the future.

I begin by providing a short historical overview of how class conflict has been managed in the U.S. through different SSAs, paying particular attention to the central role of race. I examine some of the work done on SSAs and mass incarceration and point to some critical shortcomings of the approaches so far. I then discuss the ways in which mass incarceration manages conflict in the neoliberal era. In the final section, I discuss the specific ideological role played by incarceration under neoliberalism.

### 4.2 Channeling Class Conflict: A Brief Historical Review of SSA and Race

This story was not foreordained; rather, each generation of whites defined and redefined themselves in relation to Black workers, and each generation of Blacks struggled to resist the demands imposed upon them, whether by slave owners, landlords or employers. In devising political strategies to retain their economic advantages over Blacks, whites drew upon various ideologies of racial superiority. Indeed, racism was not a primal prejudice but rather a fluid set of rationalizations, always shifting in response to considerations related to military defense, labor supply and demand, and technological innovation. Consequently, Black people’s work outside their own homes and communities in large part reflected the self-interests of groups of whites, and those interests varied from place to place and changed over time.24

Jacqueline Jones, American Work: Four Centuries of Black and White Labor (1998, 13-14)

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“Socioeconomic institutions shape relations between capitalists, workers, and other classes or groups of economic actors; they define the role of the state in the economy; and they determine the external relations of the capitalist sector with foreign capitalists and with other coexisting modes of production. The institutions of a given economy thus undergird relations of conflict and power between different classes of economic actors, and they thereby influence significantly the nature and pattern of economic change.”

Bowles et al., After the Wasteland (1990, 8)

Social structures of accumulation (SSA) refers to an approach which focuses on the broad social, cultural, legal-political and economic institutions which structure and facilitate capitalist accumulation during a given period. The SSA approach examines the “complex of institutions which support the process of capital accumulation” (Kotz et al 1994, 1). Thus, one of the key tasks of the SSA approach is to examine how institutions create social stability, and in particular, how they manage class conflict to allow for long periods of relatively stable capital accumulation. The complex structure of institutions that comprise an SSA passes through a life-cycle. SSAs are built, remain more or less stable for some period, then decay. Once a new SSA is consolidated, there is a long period of economic growth. Through its own contradictions, this boom comes to an end and is followed by a decay period in which another complex of new institutions is formed, which will lead to a new SSA (Gordon et al. 1982, Bowles et al. 1990, Kotz et al. 1994, McDonough et al. 2010).

There has been some disagreement over how to understand the current period of neoliberalism. Is it a period of decay of the postwar SSA, or is it a new SSA? Wolfson and Kotz (2010) and Kotz and McDonough (2010) persuasively argue that neoliberalism

25 See Gordon (1978), Gordon et al. (1982), Bowles et al. (1990), Kotz et al. (1994) and McDonough et al. (2010).
26 These categories of the SSA life-cycle are not mine. See Kotz et al. (1994). “Decay” does not suggest that this process happens naturally and not through struggle.
is not a continuation of the old postwar SSA but that it has constituted “a new, coherent, institutional structure that has been in existence since at least the early 1980s” (Wolfson and Kotz 2010, 73). While rapid growth\textsuperscript{27} has not materialized under neoliberalism, it should still be considered a new SSA since it has “promoted a rising share of profits in total income and, eventually, a rising rate of profit” (Wolfson and Kotz 2010, 79), and has provided a “temporary stabilization of the contradictions of capitalism” (Wolfson and Kotz 2010, 80).\textsuperscript{28}

To situate neoliberalism within the SSA theory, Wolfson and Kotz (2010) argue that SSAs come in two types: regulated and liberal. These differ in five respects: (1) the manner in which the capital-labor contradiction is temporarily stabilized; (2) the state role in the economy; (3) the contradictions within capital; (4) the contradictions within labor and (5) the character of the dominant ideology (Wolfson and Kotz 2010, 81). Compared with the regulated SSA, where labor is relatively strong, in a liberal SSA capital is less compromising and takes on a much more hostile role with respect to labor. At the same time, in the liberal SSA the state takes a lesser role in regulating capitalist activity, inter-capitalist competition is more cut-throat (which leads to more potent attacks on labor) and finance capital is more independent from productive capital. Workers are also more

\textsuperscript{27} See David McNally's *Global Slump* (2010) for a discussion on growth rates in the golden age and neoliberalism.  
competitive, which strengthens the power of capital. And a new free-market ideology reinforces the core institutions of the liberal SSA.\(^{29}\).

In the particular context of the United States, race relations – historically and socially constructed categories – also stabilize class conflict and channel conflict in directions that are not unduly disruptive of accumulation. Race relations in the United States have gone through a variety of stages and variations (e.g., slavery and Jim Crow segregation), each of which has served to ensure the relatively smooth accumulation of capital. W.E.B. Du Bois (1984) argues that race is a cross-class alliance where the white working class aligns themselves with the capitalist class instead of the Black working class. Du Bois argues that this cross-class alliance between capitalists and the white proletariat is the key to understanding race. Du Bois argues that white workers received wages of whiteness, a set of public and psychological privileges. “They were given public deference and titles of courtesy because they were white. They were admitted

\(^{29}\) Kotz and McDonough (2010) outline key changes in the capital-labor relationship that define the neoliberal period. The first characteristic is a change in the process of how wages and working conditions are determined, from a process of collective bargaining to a process where the “employers are relatively free to determine wages and working conditions” (Kotz and McDonough 2010, 104). Relatedly, the neoliberal SSA sees an institution of “labor market flexibility” where employers have the flexibility to treat workers as they please, and many primary labor-market jobs were transformed into secondary labor-market jobs with lower pay, limited benefits and little job security. Third, there is a shift in the labor process toward flexible specialization and just-in-time production. Fourth, improved communication and transportation technology has meant that capital has been more effective in using the threat of moving production to control labor. They also point to key changes in the role of the state. First, the state became less active in Keynesian aggregate demand management. Second, under neoliberalism there is a reduction in the social wage, with cutbacks to social programs such as retirement pensions, unemployment, and disability insurance and educational subsidies. Third, the state has shifted the burden for paying for public services from the rich to wage earners. The fourth change has been the privatization of services previously provided by the state. Fifth, along with this, came the privatization and deregulation of natural monopolies. Sixth and finally, the state has implemented more repressive policies of social control, such as increased use of incarceration (Kotz and McDonough 2010, 104-109). Obviously it is with this last point that I am concerned.
freely with all classes of white people to public functions, public parks, and the best schools. The police were drawn from their ranks, and the courts, dependent upon their votes, treated them with such leniency as to encourage lawlessness. Their vote selected public officials, and while this had small effect upon the economic situation, it had great effect upon their personal treatment and the deference shown them” (Du Bois 1998, 700-701). White workers repress the Black worker because it benefits them in the short-term. But in exchange for these public and psychological wages, the white worker helps to maintain the capitalist system that exploits them. Thus, race functions to channel class conflict. This is not the only function of race. Reich (1981) argues that race reduces the bargaining power of the working class, which enables capitalists to more intensely exploit all workers. Thus, racial oppression not only channels class conflict in ways that reduce disruptions to accumulation but also increases class exploitation and the rate of profit, hence facilitating accumulation.

James Baldwin wrote that “No one was white before he/she came to America” (Roediger 1999, 178). How, then, did immigrants from Europe become white and get the benefit of those public and psychological wages? “...[B]y deciding they were white...white men—from Norway, for example, where they were Norwegians—became white by slaughtering the cattle, poisoning the wells, torching the houses, massacring Native Americans, raping Black women” (James Baldwin in Roediger 1999, 178). Alex Haley told a story about a time that Malcolm X made a similar comment about how

immigrants defined and redefined themselves toward Blacks. “Waiting for my baggage, we witnessed a touching family reunion scene as part of which several cherubic little children romped and played, exclaiming in another language. ‘By tomorrow night, they'll know how to say their first English word—nigger’” (Haley 1965, 459). Both Malcolm X and James Baldwin are describing how race was produced and reproduced in different eras. Similarly, Ted Allen (1994) argues that racial slavery was the solution to two different problems in 17th-century Virginia. First, there was a labor shortage. Second, there was a problem of insurrections, such as Bacon's Rebellion. Slavery was the solution to the first problem, and racial slavery was the solution to the second. Racial slavery was maintained until the Civil War, when it was abolished; after a period of crisis and conflict, race was reconstituted in a system of legal segregation. During this latter period, Du Bois argues, “the Black man is a person who must ride ‘Jim Crow’ in Georgia” (Du Bois 1984, 153). This helps us understand what it means to be Black under segregation or slavery. While slavery and legal segregation do not exist anymore, this does not mean that race no longer exists. But if Black and white identities were defined by the legal structures of Jim Crow, as Du Bois suggests, how do they function in the absence of those structures? That is, in the absence of explicit, legally-enforced racial hierarchies, how, if at all, is race reproduced in the contemporary period? And how is this related to the neoliberal SSA? I will argue that mass incarceration plays an important role.

role in the reproduction of racial categories, in a way that fits with the characteristic ideology of neoliberalism.

4.3 SSA and the Criminal Justice System: Approaches thus Far

Carlson and Michalowski’s body of work (Carlson and Michalowski 1997, Michalowski and Carlson 1999 and 2000, Carlson et al. 2010) has most self-consciously tried to examine the relationship between SSAs and mass incarceration. In these papers, the authors seek to examine the differing relationship between crime and unemployment across different SSA phases (Carlson and Michalowski 1997) and the relationship between unemployment and imprisonment relationship for the same phases (Michalowski and Carlson 1999). They suggest that when tightening labor markets increase capital's wage bill, the criminal justice system acts as a reserve army to alleviate this pressure by decriminalizing or lowering penalties for offenses. Similarly, in periods of decay with weak labor markets, the criminal justice system absorbs the surplus labor population with higher and more severe penalties. In perhaps the most comprehensive account of their ideas, Carlson et al. (2010) explore the connection between crime, the criminal justice system and historical shifts in the postwar SSA, and they provide an account of the exact nature of the relationship between the criminal justice system as a political institution and capital accumulation. They begin from the premise that the state fills two contradictory roles. First, the state must maintain or create the conditions for capital accumulation. Second, the state performs a legitimization function, creating
conditions for social harmony (Carlson et al. 2010, 241). The authors argue that the criminal justice system legitimizes the capitalist legal order by defining and controlling property crime and elevating the sanctity of private property, and it supports both functions of the state by “minimizing violent crime and social disorder in order to secure social harmony necessary for system legitimacy and investor confidence” (Carlson et al. 2010, 241). They also suggest that the criminal justice system plays an important role in two steps of capital accumulation: 1) the investment in means of production and labor power, and 2) the profit realization step. Carlson et al. (2010) argue that “prison populations are the means to the end of profit realization” (253). This happens in two different ways: first, through demand created by employment in the criminal justice system, and second, as the expanded criminal justice system itself becomes a “lucrative market for goods and services produced/provided by private corporations. From the building supplies used to construct more prisons, to prison phone services provided by corporations like AT&T, to health services, to high-tech surveillance equipment, the corrections system became an important exploitable market” (Carlson et al. 2010, 250).

While the Carlson and Michalowski papers are certainly pathbreaking, they elide three critical issues. First, their analysis fails to specifically situate mass incarceration within the neoliberal SSA. They do not speak of the neoliberal SSA as an SSA in its own right, preferring to speak of the period following 1979 as a period of 'decay' or 'exploration.' Thus, they mistakenly analyze the rise of incarceration as a response to the

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33 The idea that the state performs these two functions, aiding accumulation and assuring legitimation, has a long history. See e.g. Wright (1978).
breakdown of the postwar SSA. This periodization misses the way in which mass incarceration has been a key feature of the neoliberal SSA. Second, Carlson and Michalowski fail to connect mass incarceration to the larger class and racial dynamics of the neoliberal period: the toxic combination of racial residential segregation, mass incarceration and the marginal labor attachment of criminalized populations. They also miss the fact that mass incarceration leads to a ratchet effect, whereby certain workers are permanently excluded from the labor force and cycle through the criminal justice system through the remainder of their lives. Finally, they do not consider the particular role of mass incarceration as a substitute for a welfare state—a substitution that is made primarily in the neoliberal SSA. It is to these omissions that I now turn.

4.4 Labor Discipline: From Welfare to Mass Incarceration

In this section, I argue that mass incarceration has played a critical functional role in restoring and maintaining labor discipline under the neoliberal SSA in the United States, since the poor job prospects for workers at the low-end of the labor market mean that the threat of unemployment is no longer sufficiently effective by itself. This role, and the related role of the prison system in upholding racial hierarchies, have in turn depended, I argue, on the intensified residential segregation characteristic of the neoliberal SSA. Since criminal sanctions can no longer be overtly based on race and cannot generally be used to directly coerce people into employment, it is necessary for those weakly attached to the paid labor force in general and Black populations in particular to be geographically concentrated in order for the criminal justice system to
perform these roles. This concentration did not come about in order to allow the expansion of the prison system but is an independent outcome of neoliberalism. Finally, I suggest that the new role of the criminal justice system in the neoliberal SSA may require not just a larger prison population, but a continuously growing one.

4.4.1 Mass Incarceration as Labor Discipline

When we get down to the poorest and most oppressed of our population we find the conditions of their life so wretched that it would be impossible to conduct prison humanely without making the lot of the criminal more eligible than that of many free citizens. If the prison does not underbid the slum in human misery, the slum will empty and the prison will fill.

—George Bernard Shaw

Piven and Cloward's *Regulating the Poor* (1993 [1971]) offers a good starting point for understanding the connections between labor discipline and mass incarceration. According to Piven and Cloward, the problem to be solved for capitalist reproduction is not the existence of a “surplus population” as such – indeed, the standard Marxian argument is that the smooth reproduction of capitalism requires exactly such a surplus as a reserve army of labor. The problem rather is the existence of a population that is weakly attached, or outright resistant, to wage labor. Starting in the late 1960s, they suggest, an increasing number of younger Blacks fell into this category. The urban

35 Piven and Cloward's book *Regulating the Poor* was originally published in 1971. They do not discuss mass incarceration since it hadn't happened yet. They discuss the role of welfare in the Post-War SSA.
36 For a good discussion of this argument, see Parenti (1999) and Gilmore (2007).
37 “People may stop working because for one reason they are unable to work, or they may repudiate
riots of the late 1960s were an expression in part of a rejection of wage labor under prevailing conditions. Drawing on interviews conducted by the U.S. National Advisory Commission on Civil Disorders, Piven and Cloward argue that “comparison between rioters and non-rioters reveal marked differences in attitudes toward political and economic arrangements. First, the rioters were much more likely than non-rioters to possess accurate information about the economic and political condition of Blacks. They were also more resentful than non-rioters: 69 percent, as compared with 50 percent of the non-involved, felt that racial discrimination was the major obstacle to their finding better employment” (Piven and Cloward, 228-29).

It is the “repudiation of the obligation to work,” rather than unemployment per se, that creates the need for mass incarceration to restore labor discipline in the neoliberal SSA. This repudiation was rooted both in the political climate of the times – especially the civil rights movement and rising Black militancy – and in the breakdown of regulated capitalism. In such transitions, “portions of the laboring population may be rendered obsolete... Market incentives... are simply not sufficient to compel people to abandon one way of living and working in favor of another” (Piven and Cloward, 6); consequently, more punitive measures are needed to re-establish the obligation to work. “Simply providing aid to quiet the unemployed will not stop disorder; it may even permit it to worsen, for … the trigger that sets off disorder is not economic distress itself but the

the obligation to work, as the young black does who remains idle on the ground that blacks are denied any but the most menial jobs. Thievery is one way of surviving; but it may sometimes be justified on the grounds that whites have always stolen from and exploited blacks, so reparations are due. … such a transformation took place during the 1960s” (228-29).
deterioration of social control. To restore order, the society must create the means to reassert its authority” (7). Market incentives may fail either because workers are attached to another "way of living and working," as Piven and Cloward suggest, or because the threat of unemployment has become less costly, or because wages and working conditions have deteriorated to the point that work is no longer attractive compared with unemployment. In any case, harsher measures will be needed to restore labor discipline. For workers at the bottom of the employment ladder, work can only be made attractive by supplementing the threat of unemployment with the threat of criminal sanctions: “To demean and punish those who do not work is to exalt by contrast even the meanest labor at the meanest wages” (3-4).

While work during the “Golden Age” was stable and secure, and had a certain social recognition and possibilities of advancement, work in the neoliberal SSA is precarious and ‘flexible.’ This logic of the whip described by Piven and Cloward forces those populations which are weakly attached to the labor force into precarious work in the neoliberal SSA in at least three ways. First, it sets up a stark choice: tolerate humiliating jobs or go to prison. Second, mass incarceration is used to close off alternative ways of life by legitimizing capitalist relations and de-legitimizing alternative forms; if illegal income or non-market work is tolerated, the marginalized populations will not work. Third, it lowers the reservation wage. Capitalist authority, as radical theorists from Marx onward have suggested, is enforced through the threat of
unemployment. But if the gap between the conditions experienced by unemployed workers and those with the worst jobs is too small, or if non-capitalist modes of existence are available, then the threat of unemployment needs to be supplemented with the threat of criminal sanctions.

4.4.2 Swapping Welfare for Punishment: Two Sorts of States

In order to keep Black people down, you hold down large numbers of white people. You can shut down any program in this country saying it is good for Black people. What about welfare? Black people, Black people! The majority of people on welfare are white. White people don't get benefits because of this. To stop the program you show a Black face. Then they tell you it is Black people's fault.

—John Bracey, The Cost of Racism to White America, Greenfield Community College

At the same time that mass incarceration came to play a larger role in enforcing labor discipline, crime and criminal justice also came to be understood in explicitly racial terms, in a way that they had not been during the postwar SSA and Jim Crow segregation. Glenn Loury (2008) points to an astonishing statistic with respect to race and welfare:

Between 1950 and 1965, attitudes toward welfare and attitudes toward race were essentially uncorrelated (r=0.03). After 1965, with the passing of the Civil Rights Act and the beginning of Great Society legislation, the correlation rose very sharply (r=0.68). In other words, welfare began to be seen less as a safety net and more as a subsidy to

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38 The most direct example is that of parole and probation. In any given year about five million people are on parole or probation. These five million people are required to have a job as a condition of their parole or probation.

39 There are other historical examples of this. For example, during chartalism in Madagascar, the colonial government initially forced indigenous populations to take part in wage labor by imposing tax obligations (Graeber 2011), and Kalecki (1943) argued that the fascist state didn't need a reserve army of labor because labor discipline was imposed directly by violence.
African Americans in particular, and these attitudes hardened with the end of the postwar SSA. Political scientists have consistently found that the belief that welfare programs disproportionately benefit African Americans has only become stronger since the mid-1960s. In fact, despite more tolerant attitudes in general among whites, Wilkens and Iceland (2004) show that with respect to welfare reform undertaken in the 1990s, attitudes were as strongly racialized in 2004 as they were a decade earlier.

What are the implications of these attitudes? In an environment where Blacks (and later Latinos) are both segregated away from the white population and seen as subsisting off of them through transfers, it is perhaps not surprising that resistance to welfare grows and attitudes toward social vulnerabilities become less forgiving. A relatively recent line of research has attempted to see whether these attitudes and the attendant political realignments have led to a "bars vs. butter" dynamic, where social provision is replaced with incarceration. Such a shift in the regulatory functions of the state is consistent with the larger transition from the regulated SSA to the liberal SSA, since the role of the state shifts from including some responsibility for the vulnerable to being more exclusively responsible for the sanctity of private property and production. Some early studies provide suggestive evidence for the "bars and butters" tradeoff. For example, researchers have found that states with more generous welfare programs tend to have lower incarceration rates (Beckett and Western 2001, Fording 2001, Greenberg and West 2001, Stucky, Heimer and Lang 2005). Perhaps the most detailed study of this comes from Goutzkkow (2006) who examines welfare spending and spending in U.S. states from 1970 to 2006. He finds very strong evidence that there is a trade-off between
the level of resources used for prisons on the one hand and welfare on the other, even though this does not translate directly to differences in the number of individuals on the rolls of each. Figure 7, drawn from the paper “Bars vs Butter,” shows trends in expenditure on incarceration and welfare. From 1970 through the 1980s, when the neoliberal SSA was consolidated, spending on incarceration and corrections trended in opposite directions. The ratio of spending between the two (logged for scaling purposes) has continued to rise throughout the period, providing some suggestive evidence that these two ways of managing the population appear to be substitutes through the period.

The general idea that mass incarceration is a means of managing a marginally attached and vulnerable population is provided some support by a cursory examination of the social position of the incarcerated in the early part of the neoliberal SSA as compared with the later years. The relevant data are summarized in Table 1 below. In 1974, 55% of the prison population in state prisons were non-white. By 2004, the number had climbed to 66%. Those who had no high school education had climbed from 29% to 37%, while the corresponding proportion of the general population who had no high school education declined from 38% to 15%. The average personal income of prisoners in 1974 was slightly higher than that of the general population ($4500 vs. $4445), but by 2004, the average personal income of prisoners was only about two-thirds that of the general population ($15,600 vs. $23,857). In short, before the 1980s the prison system did not preferentially target those at the bottom of the labor force -- prisoners had

40 As might be expected in a more insecure time, the rolls of both welfare recipients and prisoners rise beginning in 1980 and continue to increase until Clinton’s welfare reform in 1996.
somewhat higher wages and education than the working class as a whole. This suggests that in the regulated SSA, the criminal justice system did not play a central role in labor discipline. Rather, it played a more generalized role in maintaining social order. Under the neoliberal SSA, however, the focus of the criminal justice system turned increasingly to specific segments of the working class who had been marginalized by the liberalization of the labor market and the rise in inequality. Perhaps the most telling indication of this shift in the criminal justice system from targeting acts to targeting populations is provided by the last row of Table 1. In 1979 one in ten prisoners had a parent who was incarcerated. By 2004, this had risen to more than one in three. Nor was this restricted to parents alone. A survey of jail inmates in 2002 shows that 46% of inmates had a family member incarcerated.

The Justice Mapping Center mapped Temporary Assistance for Needy Families (TANF) caseloads and adult men’s admission to prison for Brooklyn, NY. Figure 6 shows adult men admitted to prison and areas with high concentrations of TANF caseloads. The map visually shows that high concentrations of TANF caseloads are strongly correlated with high concentrations of adult men's incarceration. This is a vivid illustration of how the declining welfare system and expanding criminal justice system target the same geographically-defined poor and non-white populations.

4.4.3 The Geographic Logic of Mass Incarceration as Labor Discipline Under the Neoliberal SSA
The inescapable conclusion is that society secretly wants crime, needs crime, and gains definite satisfaction from the present mishandling of it.

—Karl Menninger, *The Crime of Punishment*

As the example at the end of the previous section suggests, there is an important geographic dimension to mass incarceration's role in maintaining labor discipline and racial hierarchies. The clear spatial organization of race, income, and criminal sanctions, much stronger than under the regulated SSA, allows the system to uphold its ostensible focus on punishing individuals while in reality be used to manage populations. Residential segregation and the concentration of poverty offer a solution to the seeming contradiction between the facts that, on the one hand, the criminal justice system acts on increasingly racial lines under neoliberalism, but on the other hand, neoliberal ideology rejects any use of race as a legal category. The criminal justice system reproduces race but can't explicitly acknowledge it. The increasing residential segregation under capitalism resolves this contradiction by allowing criminal sanctions to be concentrated on Black communities without the explicit use of racial categories. Of course, there is still a great deal of direct racial targeting of criminal sanctions, but that cannot be an explicit or acknowledged organizing principle, while geography can be.

The end of the postwar SSA roughly coincided with the end of an immense, long-lasting migration of African Americans from rural areas. 41 The flight of African Americans to more promising locales in the half-century after World War I meant that by 1960, most urban centers in the U.S. had experienced, or were experiencing, a dramatic

increase in the African American share of the population.\textsuperscript{42} The combination of this demographic shift with the reassertiveness of African Americans in the 1960s, the politicization of race relations, and the civil rights and Black Power movements led to the end of segregation as official state policy with the Civil Rights Act of 1964 and the Voting Rights Act of 1965. Yet, this was only the beginning of a privately led segregation that continues to date. Kruse (2004) shows how Atlanta saw its urban landscape transformed starting in the 1950s, with the abandonment of certain parts of the cities by whites and their relocation to the suburbs in response to the demands and successes of the civil rights movement. This transformation was not usually discussed as overt racism but more frequently in the code of individualism, privatization and safety. Kruse suggests that it was the process of white flight that began in the South which spread across the country in the following decades. The attendant reorientation of political concerns among whites toward greater emphasis on individualism and small government, an ideology that dovetails with neoliberalism, was similarly a direct response to the civil rights movement.

In their classic book \textit{American Apartheid}, Massey and Denton (1989) show that the process of white flight decreased the tax base available for the maintenance of urban neighborhoods, thereby creating Black ghettos that were perpetuated by the process of continued segregation as those who could afford to leave left. While residential segregation is not always straightforward to measure, multiple measures (of dissimilarity, isolation, delta, absolute centralization and spacial proximity) confirm that African

\begin{flushright}
\textsuperscript{42} African-Americans went North and West in two great waves of migration and went from a mostly rural population to a mostly urban population. By 1960 over 80\% were urban; in 1996, 87\% lived in urban areas.
\end{flushright}
Americans were highly and increasingly segregated in U.S. cities during the 1980s. Denton (1994) confirms these findings through 1990 and suggests that these patterns extended to other U.S. cities as well. Wilkes and Iceland (2004) extend these results to 2000 and find the same central trends. An extensive study by the U.S. Census Bureau (Iceland et al. 2001) of similar measures finds that Blacks were less likely to be evenly spread across the metropolitan area, less likely to share common neighborhoods, less concentrated in dense areas, less likely to be centralized and more likely to live near other Blacks. In this way, residential segregation has allowed for the geographical quarantining of undesirable or unmanageable populations, facilitating their more intensive management by the criminal justice system. The geographic segregation of undesirable populations plays an important role in facilitating the policing of these populations. Residential segregation makes it possible for law enforcement to target certain neighborhoods and continue operating using racial categories but in a manner consistent with the individualist ideology of neoliberalism. For example, in the African American neighborhood of Bedford-Stuyvesant, Brooklyn, a now-former police officer recently released tapes of more than a year of secret recordings of police to the Village Voice. The first installment of what is now called “the NYPD tapes” quotes a police lieutenant telling his officers during roll call, “You're not working in Midtown Manhattan, where people are walking around, smiling and being happy. You're working in Bed-Stuy, where everyone's probably got a warrant” (Rayman, Graham, May 4th, 2010, The Village Voice).

So, a policy of applying different standard for policing of Blacks and whites is recast as a different standard for policing different neighborhoods. Obviously, for this to work, a high level of racial segregation is necessary. Similarly, for policing to function as a means of labor discipline, joblessness must be geographically concentrated. Again, I am not offering a simple functionalist explanation here. Intensified residential segregation was necessary for mass incarceration to play the role that it has under neoliberalism. It did not, however, come about for that reason; it has its own history.

How is one to understand the segregation and development of the ghetto, militarized Black neighborhoods and the concomitant rise of the penal state in relation to the neoliberal SSA? There are several important connections. First, there is the fact that the neoliberal SSA unleashed a rise in inequality across the country, including in urban centers. Figure 6, drawn from the U.S. Census, shows the sharp increase in the incomes of the rich starting near the beginning of the period and the stagnation of incomes of the bottom one-fifth. Researchers examining the neoliberal SSA have pointed to this as a distinguishing feature of the period, yet there have been few examinations by these researchers on how these dramatic changes in distribution have impacted the urban geography. Watson (2009) provides some compelling evidence to suggest that rising inequality has further strengthened segregation. She finds that inequality at the top of the distribution is associated with more segregation of the rich, while inequality at the bottom and declines in labor demand for less-skilled men are associated with residential isolation of the poor. Given that Black neighborhoods are much more likely to be poor, the implications are clear.
In addition to its effects on income distribution, neoliberalism also contributed to increased segregation and geographic concentration of unemployment more directly. It (re-)commodified housing by eliminating regulations and policies which supported housing in non-market ways. Eliminating public supports for affordable housing increased residential segregation. Wacquant (2010) also discusses two particular tendencies within neoliberalism: 1) the freedom of capital to move to low-wage areas, and 2) the fact that low-skilled immigrants served as competition for low-skilled African Americans and therefore made them relatively dispensable. Frazier (1957) argued that African American upward mobility was linked to the availability of industrial jobs. But neoliberal restructuring eliminated those jobs. Wilson (1996) argued that what was left behind when the jobs disappeared was a new urban poverty. By “the new urban poverty, I mean poor, segregated neighborhoods in which a substantial majority of individual adults are either unemployed or have dropped out of the labor force altogether. For example, in 1990 only one in three adults ages 16 and over in twelve Chicago communities held a job in a typical week of the year” (Wilson 1996, 19).

Criminologists have long been interested in the causes and consequences of residential segregation. Most scholars now agree that crime and punishment are highly localized and that examinations of these patterns at the neighborhood level can yield much better understandings than more aggregative studies. That said, there have been relatively few studies that have examined the degree to which residential segregation and incarceration are correlated, because collecting data on incarceration at neighborhood

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levels has been difficult, and what data exists is largely proprietary to the penal system. Massey and Denton suggest some evidence for a link between incarceration and segregation, and one can see *prima facie* evidence that incarceration is highly correlated with neighborhoods that are primarily African American simply by looking at maps of two or three key areas.\(^{45}\) Figures 3 and 4 show maps of New York from the *New York Times* which map race by block.\(^{46}\) Figure 5 shows a map by the Justice Mapping Center of men admitted to prison. These maps show a clear concentration of incarceration in neighborhoods that are predominantly African American and Latino.

Under the neoliberal SSA, three mutually reinforcing processes interlink: greater inequality, racialized and income-based residential segregation, and geographically targeted mass incarceration. The threat of unemployment is unlikely to provide effective social discipline in neighborhoods like those described by Wislon, not so much because workers actively resist wage labor – as Piven and Cloward suggest for the earlier period – but simply because formal employment is largely unavailable in any case. Thus an alternative means to enforce social order and discipline potential workers is needed.

### 4.4.4 The Ratchet Effect

*Let us now see what are the objections to the Deterrent or Terrorist System. It necessarily leaves the interests of the victim wholly out of account. It injures and degrades him; destroys the reputation without which he cannot get employment; and when the punishment is imprisonment under our system, atrophies his power of fending for himself in the world. Now this would not materially hurt anyone but himself if, when he had been duly made an example of, he were killed like a vivisected dog. But he is not killed. He is, at the expiration of his sentence, flung out of the prison into the streets to earn his living in a labor market where nobody will employ an ex-prisoner, betraying himself at every turn by his ignorance of the*

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\(^{45}\) See also Dhondt (2011b).

\(^{46}\) Maps are based on American Community Survey 2005-2009.
common news of the months or years he has passed without newspapers, lamed in speech, and terrified at
the unaccustomed task of providing food and lodging for himself. The is only one lucrative occupation
available for him; and that is crime.

—George Bernard Shaw

The previous sections present an argument for why an expanding prison system
might be a natural response to the diminished effectiveness of the threat of
unemployment as a tool for maintaining labor discipline, given the declining job
prospects for workers at the low-end of the labor market, especially in a context of
intensified residential segregation. But what are the longer-term implications of this
response? Here I argue that this use of mass incarceration as a means of labor discipline
may require a prison population that is not only large but also ever-expanding.

While there are no long time series data available on prisoner releases, Travis
(2005) estimates that about 170,000 people were released from prison in 1980. The
number today is over 750,000 (Travis 2009). Roughly 13% of the U.S. male population is
currently an ex-felon or is on probation or parole. 48 How does incarceration affect labor
market outcomes and the ability of former inmates to successfully re-integrate into
capitalist production? This question has been studied fairly extensively by sociologists in
the recent past. Devah Pager (2007) provides a startling statistic in this regard; using
matched applicants applying for a position, she finds that a criminal record is associated
with a 50 percent reduction in employment opportunities for whites and a 64 percent
reduction for Blacks. In other words, incarceration provides a sharp penalty to

47 From George Bernard Shaw (1946), The Crime of Imprisonment, originally written shortly after
World War I.
48 See Pager (2007).
reintegration, to the point, perhaps, of leaving few sources of income open for ex-
prisoners other than criminal activities. In short, the ratchet effect alluded to in the Shaw
quote is an important explanation for the continued growth of the prison population
throughout the neoliberal SSA, even once the new forms of labor discipline were firmly
established and the sort of active resistance to wage labor described by Piven and
Cloward had largely disappeared. Indeed, recent work (Dhondt 2011a and Dhondt 2011b)
suggests that crime is positively correlated with incarceration, further strengthening the
argument that a positive-feedback or ratchet effect is present, with increased incarceration
driving further increases.

To what extent has this effect been functional for neoliberal capitalism? Perhaps
the most convincing answer comes from the work of Western and Beckett (1999) and
Western and Pettit (2005). Western and Beckett (1999) argue that “high incarceration
rates lower conventional unemployment statistics by hiding joblessness but create
pressure for rising unemployment once inmates are released. Sustained low
unemployment depends, in part, not just on a large state intervention through
incarceration but on a continuous increase in the magnitude of this intervention”(1053).
Western and Pettit (2005) argue the point even more strongly. They suggest that the
prison population should be added to measured unemployment to provide a more honest
and less sanguine picture of the employment performance of the United States in the
1980s and 1990s. But they also suggest that although mass incarceration can mask a poor
labor market performance in the short run, it is not a long-term solution to handling
unemployment, since in the long run, social survey data show that incarceration raises
unemployment by reducing the job prospects of ex-convicts. This leads to a reinforcement of the ratchet effect.

Western (2006) makes a clear and compelling case that mass incarceration has emerged as a new stage in the 'life course' of young, less educated Black men. He shows that where a 'normal' life trajectory in the U.S. has certain set milestones (school, university, moving away, work, marriage, owning a home, becoming a parent and so on), the pervasiveness of the penal system, particularly in racially segregated neighborhoods, has meant that an alternate and concurrent life course is created for young Black men. In other words, the prison system disconnects African American men from the labor force not just through the direct effect on employment prospects of individuals with a criminal record, but by disrupting the process of socialization that prepares young adults to be part of the labor force under capitalism. Incarceration interrupts and changes the potential for individuals to engage fully in mainstream existence, reinforcing the ratchet effect.

To summarize, constantly increasing incarceration through the ratchet effect is functional for neoliberalism. Incarceration further disconnects those who are incarcerated from the labor force, thus they have to be incarcerated again. Incarceration understates the unemployment rate by incarcerating those who otherwise could enter the labor force. Then, when released, those previously incarcerated re-enter the labor force but cannot get jobs, thereby increasing the unemployment rate. Thus, it is beneficial for them to be locked up again.
4.5 Mass Incarceration, the Reproduction of Racial Categories and Neoliberal Ideology

Neoliberal ideology is marked by glorification of individual choice, markets, and private property; a view of the state as inherently an enemy of individual freedom and economic efficiency; and an extreme individualist conception of society.

—David Kotz and Terrence McDonough

In addition to its direct role in maintaining labor discipline and substituting for welfare as a tool for marginalized populations, mass incarceration also plays a critical ideological role in the neoliberal SSA. This role is shaped by the history of race in the United States, which distinguishes the operation of neoliberalism here from otherwise similar systems elsewhere in the world. More particularly, the role of whiteness as an overarching ideological category winning compliance from the working class means that the end of legally-enforced racial hierarchies in the 1960s posed a major challenge for the legitimation of capitalism in the United States. Mass incarceration has played an essential role as the replacement for the formal discrimination of the Jim Crow era, both as a means of formalizing and enforcing racial boundaries, and as a way of maintaining capitalist hegemony by convincing white workers that they share an interest in the defense of property with the ruling class. In this final section, I explore this ideological

49 Quote from Kotz and McDonough 2010, page 94
role, starting with the historical literature on the development and maintenance of whiteness.

Ted Allen, Noel Ignatiev, David Roediger and Alexander Saxton built upon the classic work by C.L.R. James and W.E.B. Du Bois\textsuperscript{50} to develop a new field of studies referred to as “whiteness studies.” They study the composition of the American worker in the 17\textsuperscript{th}, 18\textsuperscript{th} and 19\textsuperscript{th} centuries to explain why a section of the working class (the white worker) often sided with the ruling class against another section of the working class (the Black worker). For them, race functions as a cross-class alliance between the white working class and the capitalist class. Racial oppression exists when the state denies certain rights and privileges to one section of the working class and gives those rights and privileges to another section of the working class in exchange for their alliance to the capitalist class. Anthony Marx argues that this cross-class alliance created the stability needed for growth. “To hold together the nation-state, preserving stability needed for growth, whites were unified across class by race ... Economic interests were subordinated to white racial unity, with this class compromise made explicit and enforced by state policy varying in response to ongoing class tensions” (Marx 1998, 14-15).

Stanley Greenberg argues that despite conflicts over the details of racial domination under segregation, “Each [class sector] calls on the state to take control of the subordinate worker, to draw racial lines somewhere in society and economy” (Greenberg 1980, 26-27).

During slavery and Jim Crow, this cross-class alliance was enforced through an explicit juridical system. Racial subordination and privilege were official state policy. Du Bois wrote that during segregation one does not have to ride ‘Jim Crow’ because one is Black, but instead “the Black man is a person who must ride ‘Jim Crow’ in Georgia” (Du Bois 1984, 153). Similarly, one belongs to the white race if one does not have to ride ‘Jim Crow.’ It is important to point to the fact that not all people of African Americans were slaves or had to ride ‘Jim Crow.’ There were always “free Blacks,” and it is an often repeated story that the best way to not have to ride “Jim Crow” was to put on a turban. But the fact that the president of the United States is Black does not mean that race does not exist anymore, but that Jim Crow is dead. Under the racial regime of segregation, who had to ride ‘Jim Crow’ and who did not defined who was Black and who belonged to the white race. While capitalist accumulation in the United States has always relied on maintaining a cross-class alliance between elites and poor whites, by the mid-1960s Black struggle had broken down the arrangements that had historically reproduced this cross-class alliance. But while Jim Crow ceased to be official state policy, racial inequalities have not disappeared.51

While race is central to the operation of mass incarceration under the liberal SSA, it plays a broader ideological function as well. The following quote from Karl Marx on transitions in what we now call hegemony gives some insight into this process.

becomes confused with it and is perceived and acknowledged as its general representative, a moment in which its claims and rights are truly the claims and rights of society itself, a moment in which it is truly the social head and the social heart. Only in the name of the general rights of society can a particular class vindicate for itself general domination. For the storming of this emancipatory position, and hence for the political exploitation of all sections of society in the interests of its own section, revolutionary energy and spiritual self-feeling alone are not sufficient. For the revolution of a nation, and the emancipation of a particular class of civil society to coincide, for one estate to be acknowledged as the estate of the whole society, all the defects of society must conversely be concentrated in another class, a particular estate must be the estate of the general stumbling-block, the incorporation of the general limitation, a particular social sphere must be recognized as the notorious crime of the whole of society, so that liberation from that sphere appears as general self-liberation. For one estate to be par excellence the estate of liberation, another estate must conversely be the obvious estate of oppression. The negative general significance of the French nobility and the French clergy determined the positive general significance of the nearest neighboring and opposed class of the bourgeoisie.52

This quote by Marx anticipates very clearly later arguments by Gramsci on hegemony. But the importance of a negative class or common social enemy is notable, since it is not often emphasized in discussions of hegemony. During slavery and Jim Crow segregation the social enemy was clearly defined by laws ostensibly meant to defend the white race. But in the post-segregation era, how is the negative class defined? The recomposition of this negative class does not happen in a vacuum, but under the constraints imposed by a changed capitalism – neoliberalism. As applied to neoliberalism, this suggests the importance of establishing criminals as the "estate of oppression" for the bourgeoisie to re-establish hegemony over the working class. The bourgeoisie needs to make private property the general condition of freedom and social existence, since private property is the condition of its own existence. The working class must be made to feel that its own property is under threat, so that it will support the protection of private property as the central function of the state. The criminal then becomes the threat to private property, and

52 Quote from Marx 1844, Contribution to the Critique of Hegel's Philosophy of Right.
increasing fear of loss or violation of property by "criminals" builds support for the protection of property in general.

At the same time, liberation from formal, legal racial hierarchy does not mean liberation from racial oppression in general. Karl Marx argued that there exists a difference between political emancipation and human emancipation in his 1843 essay “On the Jewish Question” (Tucker 1978). Marx argues that when property is abolished in the public sphere it still thrives in the private sphere where, under capitalism, real power rests. Olson (2004) argues that the civil rights movement achieved something akin to political emancipation. “Once 'emancipated' from the state, race is cast into the private realm” (Olson 2004, 72). Olson argues that this emancipation of race moved the cross-class alliance from the public sphere into the private sphere. “Rather than eliminating race, the color-blind state makes it prepolitical: it understands race as formed prior to the public sphere through essentially “private” or natural means such as biology, ancestry, culture or even personal choice. ... Nevertheless, transforming race into a prepolitical category does not abolish its political influence” (Olson 2004, 72). Olson argues that in the post-segregation era whiteness is normalized. “Rather than a form of public standing, whiteness in the color-blind state functions as a norm in which racial privilege is sedimented into the background of social life as the “natural outcome” of ordinary practices and individual choices, making it difficult to discern any systematic explanation for the advantages whites continue to enjoy after the civil rights movement” (Olson 2004, 74). Instead of whiteness being reproduced as a form of standing, it is reproduced through processes of normalization in the post-segregation era. This transformation of race into a
prepolitical category fits in perfectly with neoliberal ideology since social outcomes now appear to be based on individual choices or, in the particular case of crime, individual wrongdoing. But it is critical to understand that this is merely the ideological appearance of the operation of the criminal justice system; in reality, its role in the neoliberal SSA depends precisely on the fact that it both targets and creates populations. In effect, the object of the system is not the crime but the criminal as an ascriptive category.

In the seminal book *The New Jim Crow*, lawyer Michelle Alexander (2010) argues that mass incarceration is the way racial categories are reproduced in the contemporary period. Like slavery and Jim Crow, mass incarceration locks “a stigmatized racial group into an inferior position by law and custom”(Alexander 2010, 12). Mass incarceration “is a system that locks people not only behind actual bars in actual prisons, but also behind virtual bars and virtual walls—walls that are invisible to the naked eye but function nearly as effective as Jim Crow laws once did at locking people of color into a permanent second-class citizenship. The term mass incarceration refers not only to the criminal justice system but also to the larger web of laws, rules, policies, and customs that control those labeled criminals both in and out of prison. Once released, former prisoners enter a hidden underworld of legalized discrimination and permanent social exclusion” (Alexander 2010, 12-13). The social exclusion and legalized discrimination of these ex-felons is the key to Alexander’s argument. We can see the extent of this social exclusion on the African American community if one considers that 12% of Black men between the ages of 25 and 29 are currently locked up; that one in three Black men and over half of all those who do not have a high school diploma will go to prison in their lifetimes; that 95%
of all those who go to prison will be released back into society. “Black men are more likely to go to prison than to attend college, serve in the military, or, in the case of high school dropouts, be in the labor market” (Pager 2007, 3). These social outcomes do not seem to be the result of public policy but instead of individual choices. Thus, mass incarceration diverts attention away from a critical evaluation of the institutions and performance of the economic system. By understanding mass incarceration as a central institution which reproduces racial categories in the neoliberal SSA, we can better understand why the working class has swallowed the bitter pill of neoliberal restructuring.

4.6 Conclusion

The problem of the Twentieth Century is the problem of the color-line.

—W.E.B. Du Bois, Souls of Black Folk

The neoliberal SSA has been analyzed as a unique and particular period of U.S. capitalism, one which has seen the growth of financialization, liberal ideology, imperial reassertion, increasing income inequality, privatization and so on. I have argued that the typical list of features of the SSA misses or glosses over a key aspect of the period — the growth of mass incarceration that functions as a way to manage the bitter social and class conflicts that arise from the particular nature of accumulation in the neoliberal SSA. Mass incarceration dovetails cleanly with the demands of an individualistic capitalism by segregating, controlling and removing large populations—primarily young African American men who are not otherwise easily accommodated into the capitalist production process. The inequalities generated by neoliberal capitalism fall hardest on these young
men, who are made increasingly vulnerable and are therefore trapped in a vicious and expanding cycle of poverty and incarceration. Finally, the ideological underpinnings of neoliberalism – an (imagined) individualism and a distrust of government assistance – mean that the role of the state is altered from that of providing welfare and support for reintegration into the labor market to simply penalizing and locking up poorer and more vulnerable populations. I show some relevant statistical evidence of this change. The SSA framework, I have also argued, helps shed light on why the issue is not simply one of another 'racial caste system' (Alexander 2010) to control African Americans per se, but rather a way in which the distinct class dynamics of neoliberalism in the United States are managed.

Such an exercise, however, opens up as many questions as it answers and suggests a number of pressing questions for future work. For example, this analysis applies primarily to the U.S., yet neoliberalism is a global phenomenon. In other societies, mass incarceration does not seem to be a major institution for managing class conflict. Is the U.S. case simply a social experiment that is showing the way to other countries, as Wacquant (2009) appears to suggest? Does the particular history of race relations in the U.S. make mass incarceration unique to the U.S. in this era? Alternatively, do the longer and deeper traditions of welfare in other advanced industrialized economies make mass incarceration less appealing there? Finally, how might the relationship between mass incarceration and neoliberalism play out in the future? As with all previous phases of capitalist growth, this current phase runs into increasing contradictions. At the present juncture, in the midst of an epochal economic crisis that has threatened its very core, the
neoliberal SSA may be in a process of re-armament or, conversely, at the beginning of a stage of decay. Whichever way it happens, it will involve some sort of reconfiguration of the role of mass incarceration to calibrate and assuage social conflicts.
Table 4.1: Characteristics of Prisoners

<table>
<thead>
<tr>
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<td>10667</td>
<td>10085</td>
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<td>White</td>
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<td>41.5</td>
<td>81.7</td>
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<td>32.4</td>
<td>31.6</td>
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<td>Employed</td>
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<td>84.6</td>
<td>69.9</td>
<td>83.9</td>
<td>70.2</td>
<td>80.4</td>
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<td>Looking for Work</td>
<td>42</td>
<td>89.9</td>
<td>48.1</td>
<td>88.9</td>
<td>60</td>
<td>87.5</td>
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<tr>
<td>Never Worked</td>
<td>3.9</td>
<td>2.9</td>
<td>4.6</td>
<td>3.7</td>
<td>5.6</td>
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<td>Personal Income</td>
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<td>4445</td>
<td>7168</td>
<td>8250</td>
<td>11670</td>
<td>8250</td>
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<tr>
<td>Income Welfare</td>
<td>9.8</td>
<td>4.2</td>
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<td>1.6</td>
<td>7.2</td>
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<tr>
<td>Income Illegal</td>
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<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
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<tr>
<td>Previously Incarcerated</td>
<td>70.9</td>
<td>57.2</td>
<td>56.8</td>
<td>56.8</td>
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<td>56.8</td>
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<tr>
<td>Parent Incarcerated</td>
<td>10</td>
<td>7.6</td>
<td>19.5</td>
<td>19.5</td>
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Table 4.2: Descriptive Statistics on Imprisonment, GDP and Welfare Across Countries, 1998

<table>
<thead>
<tr>
<th>Country</th>
<th>Imprisonment Ranking</th>
<th>Incarceration Rate</th>
<th>% GDP spent on Welfare</th>
<th>Welfare Score</th>
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<td>U.S.</td>
<td>1</td>
<td>666</td>
<td>14.4</td>
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<td>Portugal</td>
<td>2</td>
<td>146</td>
<td>18.2</td>
<td>-4.6</td>
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<tr>
<td>New Zealand</td>
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<td>144</td>
<td>21</td>
<td>-1.8</td>
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<tr>
<td>UK</td>
<td>4</td>
<td>124</td>
<td>20.8</td>
<td>-2</td>
</tr>
<tr>
<td>Canada</td>
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<td>115</td>
<td>18</td>
<td>-4.8</td>
</tr>
<tr>
<td>Spain</td>
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<td>112</td>
<td>19.7</td>
<td>-3.1</td>
</tr>
<tr>
<td>Australia</td>
<td>7</td>
<td>106</td>
<td>17.8</td>
<td>-5</td>
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<tr>
<td>Germany</td>
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<td>95</td>
<td>26</td>
<td>3.2</td>
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<tr>
<td>France</td>
<td>9</td>
<td>92</td>
<td>28.8</td>
<td>6</td>
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<td>Luxemburg</td>
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<td>-0.07</td>
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<td>86</td>
<td>25.1</td>
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<td>Netherlands</td>
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<td>Switzerland</td>
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<td>79</td>
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<td>Belgium</td>
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<td>Denmark</td>
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<td>63</td>
<td>29.8</td>
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<td>Sweeden</td>
<td>16</td>
<td>60</td>
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<tr>
<td>Finland</td>
<td>17</td>
<td>54</td>
<td>26.5</td>
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<tr>
<td>Japan</td>
<td>18</td>
<td>42</td>
<td>14.7</td>
<td>-8.1</td>
</tr>
</tbody>
</table>

Correlation between Imprisonment rates and Welfare Spending is -.49 with the U.S. and -.43 without the U.S.

Note: This table is drawn from Downes, David and Hansen, Kirstine (2006) Welfare and punishment in comparative perspective. In: Armstrong, Sarah and McAra, Lesley, (eds.) Perspectives on punishment: the contours of control. Oxford University Press, Oxford, UK, pp. 133-154. Incarceration rates are per 100,000 of the population age 15 and above. Welfare score is the proportion of GDP spent in a particular nation-state compared to the mean of all 18 nations. Correlations are author's calculations.
Figure 4.1: Incarceration Rate 1925 to 2009

Note: Incarceration Rate 1925 – 2009 per 100,000 of sentenced prisoners under jurisdiction of State and Federal correctional authorities on December 31.
Source: Table 6.28.2009 Sourcebook of Criminal Justice Statistics.
Figure 4.2: Incarceration Rates by Race, 1980-2008

Note: This graph is from Western and Pettit 2010. Figure 3 in Collateral Consequences: Incarceration's effect on Economic Mobility. Washington, DC: The Pew Charitable Trusts.
Figure 4.3: Map of Racial Residential Segregation in Northern New York City

Note: Census tract 1 is Rikers Island, the NYC jail. The colors represent different population based on the Census Bureau’s American Community Survey. Each dot represents 200 people and is based on samples from 2005 to 2009. Blue is Black; Orange is Latino; Red is Asian; and Green is white. Source: The New York Times.
Figure 4.4: Map of Racial Residential Segregation in Southern New York City

Note: The colors represent different population based on the Census Bureau’s American Community Survey. Each dot represents 200 people and are based on samples from 2005 to 2009. Blue is Black; Orange is Latino; Red is Asian; and Green is white. Source: The New York Times.
Figure 4.5: Men Admitted to Prison, 2006

Source: Justice Mapping Center
Note: Map of New York City. Red represents Prison Admissions for Males (16-59) per 1000.
Figure 4.6: Mean Income of Each Fifth of the U.S. Economy in 2000 Dollars from 1970 to 2001

Figure 4.7: Average State Corrections and Welfare Spending, 1970-1996

Figure 4.8: Men Admitted to Prison Overlaps with TANF Adults and Foster Children

Source: Justice Mapping Center

Note: This is a map of Brooklyn, New York. The red areas in the middle map are male incarceration rates per 1000. More red represent more incarceration. The map of Brooklyn in the top right hand corner, yellow, represents foster care per 1000. The more yellow represents higher concentrations of foster care. The map of Brooklyn in the top left corner represents TANF recipients per 1000. The darker the blue illustrates more TANF Adults. The circles on the middle map represent the areas with the highest foster care, the highest TANF adults per 1000. As one can see, this is also an area with high incarceration. These neighborhoods of Bedford-Stuyvesant, Crown Heights, Brownsville and their neighboring neighborhoods of East New York, Bushwick, Clinton Hill, and Canarsie are Black neighborhoods as one can see in Figure 4.4. According to the census, a million people live in this part of Brooklyn with over 82% Black population, making it the largest Black city in the United States.
CHAPTER 5
CONCLUSIONS

As we noted on the outset, even the sternest critics of the buildup harbored the belief that prison expansion would result in lower crime rates — otherwise, why not tear down the walls now?


This dissertation examines the relationship between incarceration and crime in the neoliberal period in the United States. It provides evidence that incarceration does not lower crime rates but instead increases crime. It analyzes mass incarceration using a social structures of accumulation (SSA) framework to shed light on why incarceration has increased during the neoliberal period.

Chapter 2 and Chapter 3 are empirical studies which study how the addition of a marginal prisoner decreases or increases crime. Chapter 2 uses mandatory minimum sentencing for marijuana and cocaine as an instrument for changes in the prison population in a 50-state panel dataset. This chapter is based on Levitt’s 1996 paper. I use a different instrument than Steven Levitt, and I argue that my instrument better captures the questions we need to study. I also have more a larger dataset than Levitt. My results are the opposite of Levitt’s results. I find that increases in incarceration increase crime, rather than decreasing it. This chapter attempts to estimate the marginal productivity of increased incarceration on crime. The estimates obtained are in the opposite direction of estimates obtained by most previous studies. Increasing incarceration does not have a
negative effect on crime but instead has a positive effect. A one-percent increase in incarceration leads to a .28 percent increase in violent crime. Chapter 3 attempts to estimate the effect of adding prisoners on crime per capita and the effect of prison cycling on crime per capita at the neighborhood level in the city of Tallahassee. I provide evidence that increasing incarceration does not have a negative effect on crime in neighborhoods but instead has a positive effect in certain neighborhoods. Similarly, prison cycling also has a positive effect on crime in marginalized neighborhoods. These results provide support for the theory that there are crime-enhancing counter-tendencies which operate at the neighborhood level, such as the coercive mobility effect.

These results in Chapters 2 and 3 should caution against the continued use of incarceration as the first response to crime and other social problems since incarceration might result in the opposite of the intended effect. Our society has relied heavily on incarceration over the past three decades, yet it might not increase our social welfare and in fact might even decrease it. In light of these findings, we should reconsider the massive use of incarceration to solve our problems. Thus, why not tear down the walls?

Chapter 4 attempts to contribute to an explanation for the massive increase in incarceration, especially given the evidence provided in Chapters 2 and 3. Chapter 4 is also a contribution to our understanding of the neoliberal period. The neoliberal social structures of accumulation has been analyzed as a unique and particular period of U.S. capitalism, one which has seen the growth of financialization, liberal ideology, imperial reassertion, increasing income inequality, privatization and so on. I have argued that the typical list of neoliberal features misses or glosses over a key aspect of the period: the
growth of mass incarceration, which functions as a way to manage the bitter social and class conflicts that arise from the particular nature of accumulation in the neoliberal SSA. When scholars examine the diminishing role of the state under neoliberalism, they frequently misunderstand the changed role of the state based on the needs of managing class conflict in different periods with different regimes of accumulation.

This dissertation raises some important questions for our society to consider. First, it questions the success of the policy of mass incarceration to bring down crime rates. Actually, it provides evidence of its failure: incarceration increases crime. For example, in Chapter 3, evidence is provided that incarceration has little to do with crime rates and much to do with other factors, such as race and class. This evidence points to the analysis in Chapter 4 of why incarceration increased so exponentially during the neoliberal period, and I argue this relates to the changing nature of race and class conflict in the neoliberal period. This provides important insights in our understanding of race in the post-segregation era and how this relates to class conflict in the neoliberal era in the United States. These insights are important contributions to our understanding of the neoliberal period.

Bert Useem and Anne Morrison-Piehl pose the question that if prisons do not lower crime rates, why not just tear down the walls? This is an important question for us to think about. If prisons do not lower crime rates, but instead increase crimes, and if prisons are about race and class conflict in the neoliberal period. Why then not just tear down the walls? It might have prevented the horrific murders by Kerby Revelus in March 2009.
BIBLIOGRAPHY


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