Essays on the Effects of Correctional Policies on Prison Misconduct

By

Sarah Tahamont

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Professor Steven Raphael, Chair

Professor Rucker C. Johnson

Professor Franklin E. Zimring

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Abstract

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This dissertation analyzes the effects of two correctional policies on prison misconduct. Chapter 1 briefly frames prison as a policy built environment and provides an overview of mass incarceration in the United States. Chapters 2 and 3 provide causal estimates of the effects of two correctional policies on prison misconduct.

Chapter 2 estimates the relationship between prison visits and self-reported inmate misconduct using the 2004 Survey of Inmates in State Correctional Facilities (SISCF). This paper contributes to the extant literature by broadening the scope of the conversation about the determinants of inmate behavior to include influences from outside of the prison, namely prison visits, as opposed to limiting the discussion to individual or prison-specific influences. By employing an instrumental variables approach to estimating the relationship between prison visits and inmate misconduct the paper is the first to address the threats to internal validity posed by direct estimation of the effect of visitation on prison misconduct. The intuition behind my identification strategy is that distance between an inmate's home and place of incarceration isolates quasi-random variation in prison visitation, in effect assigning prison visits to inmates in a given state at random. The results suggest receiving visits reduces certain types of misconduct and the findings suggest the potential to reduce prison misconduct without resorting to increased isolation.

Chapter 3 estimates the relationship between facility security level and prison misconduct using an administrative data set from the California Department of Corrections and Rehabilitation (CDCR). The different levels of prison facility are designed to recognize heterogeneity in the inmate population and to appropriately house inmates during their incarceration to minimize risk of misconduct and escape. Prison facility security levels vary in physical characteristics, average levels of violence and other misconduct and staff perceptions of safety.

An increase in facility security level could result in a suppression effect on misconduct and/or a peer effect which could positively or negatively effect misconduct. In this chapter, I employ a regression discontinuity (RD) design that exploits cutoffs in the security classification score to characterize the relationship between security classification and prison misconduct. The results of the paper suggest that inmates placed in a Level III facility are 8 percentage points less likely to incur a RVR than inmates placed in Level II, and that this result is driven almost entirely by a lower likelihood of write ups for Division E or F violations, which are the lowest level of violations eligible for write up as RVRs. I hypothesize that this result may stem from differences in the priorities of custody staff as opposed to lower numbers of these types of violations at Level III prisons. In contrast to the findings between Levels II/III, I do not find an effect of facility security classification on the incidence of serious RVRs at the Level III/IV cutoff.

Overall, the goal of the dissertation is to contribute to the extant knowledge about the effects of correctional policies on inmate outcomes by describing how certain correctional policies shape the in-prison behavior of both inmates and custody staff. Since the effects of incarceration most likely reverberate to those who interact with inmates during their incarceration and persist after an inmate is released, understanding the effects of correctional policies on *in*-prison behavior contributes to our understanding of how incarceration affects individuals, their families and their communities post-release and, in doing so, contribute, in some part, to a better understanding of what it means to use incarceration so extensively in the United States.

This dissertation is dedicated to:

my love, Michael;

my dad, Craig; and

my mom, Maria, the original Dr. Tahamont.

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Contents

List of Figures

List of Tables

1 Introduction

In this dissertation, I will attempt to characterize the relationship between two major prison policies and the incidence of prison misconduct. The goal is to contribute to the existing literature aimed at understanding the effects of correctional policies by rigorously applying applied econometric methods to identify the causal relationships between prison policies and inmate outcomes.

My first paper estimates the relationship between prison visits and self-reported inmate misconduct using the 2004 Survey of Inmates in State Correctional Facilities (SISCF). This paper contributes to the extant literature by broadening the scope of the conversation about the determinants of inmate behavior to include influences from outside of the prison, namely prison visits, as opposed to limiting the discussion to individual or prison-specific influences. By employing an instrumental variables approach to estimating the relationship between prison visits and inmate misconduct the paper is the first to address the threats to internal validity posed by direct estimation of the effect of visitation on inmate outcomes. The intuition behind the identification strategy is that distance between an inmate's home and place of incarceration generates quasi-random variation in prison visitation. Instrumental variables estimation isolates that variation, in effect assigning prison visits to inmates within a given state at random conditional on set of individual level characteristics. The results suggest receiving visits reduces certain types of misconduct and the findings suggest the potential to reduce prison misconduct without resorting to increased isolation.

My second paper estimates the relationship between prison facility security level and prison misconduct using an administrative data set from the California Department of Corrections and Rehabilitation (CDCR). Inmates in California are assigned to one of four facility security levels using a risk prediction instrument that assigns weighted values to characteristics that predict prison misconduct and combines the values into a single security classification score. CDCR has four total facility security levels that range from Level I (minimum security) facilities on the low security end to Level IV (maximum security) facilities on the highest security end. In this paper, I employ a regression discontinuity (RD) design that exploits cutoffs in the security classification score to characterize the relationship between security classification and prison misconduct. This study contributes directly to the literature that aims to estimate the effects of different levels of incarceration on inmate outcomes in two key ways. First, since the data analyzed for this study includes all of the male inmates incarcerated in CDCR prisons for a full year starting in January of 2008, the sample size is large and generates much more precision for statistical inference than prior studies of this kind. Second, in this paper I am able to implement the most up to date methods for RD designs and pay close attention to the mechanisms for inmate assignment to facility security level.

As a result, I believe I will be able to identify the causal effect of facility security classification on the incidence of serious rules violation reports (RVRs) in California prisons. The results of the paper suggest that inmates placed in a Level III facility are 8 percentage points less likely to incur a RVR than inmates placed in Level II, and that this result is driven almost entirely by a lower likelihood of write ups for Division E or F violations, which are the lowest level of violations eligible for write up as RVRs. I hypothesize that this result may be a result in differences in the priorities of custody staff as opposed to lower numbers of these types of violations at Level III prisons. In contrast to the findings between Levels II/III, I do not find an effect of facility security classification on the incidence of serious RVRs at the Level III/IV cutoff. This finding contrasts with prior literature on this topic, which finds a suppression effect of maximum security facilities.

On the whole, the aim of this dissertation is to derive empirical estimates that will contribute to the understanding of the effects of correctional policies on prison misconduct.

1.1 Prison as Policy Built Environment

As a policy researcher, it is possible to view prisons as entirely policy built environments. After all, almost every aspect of the prison environment is a kind of policy intervention: secure perimeters; the number of inmate counts in a day; the type of weaponry utilized by correctional staff; whether or not an inmate gets mail, calls, or visits; the food; the size of a cell; the style of clothing; and the wages and work assignments; to list a few. The consequences of prison policy choices can be profound and affect inmates, their families, and their communities both during incarceration and for years after an inmate's release.

Many prison policies are imposed by correctional policy makers with the intention of directly influencing inmate behavior in order to control the prison environment. Indeed, much of the desire to understand the effects of the prison environment has been motivated by prison administrators' desires to maintain control and promote institutional safety. Prison administrators have myriad reasons to be concerned with institutional safety. Among them, disruptions in the prison environment inevitably impede any rehabilitative efforts in the prison.

Furthermore, given the severity of some of the conditions of incarceration, it is reasonable to assume that the experience of being incarcerated has a lasting effect. Understanding the effect of prison policies on inmate behavior will shed some light on the effect of incarceration on individuals in general. The value of understanding the effects of incarceration on prison misconduct for prison administrators seems self-evident, but there are also implications for outside the prison walls. In fact, there has been a great deal of qualitative evidence to suggest that the formerly incarcerated have a difficult transition back into the free world (Fishman, 1990; McDermott and King, 1992; McLanahan, 2006; Richards, 1992; Wheeler, 1961). Over 700,000 are released back into U.S. communities annually (Sabol et al., 2009).

However, despite the potential severity of the consequences of incarceration for prison inmates, their families and their communities both during incarceration and afterwards there are significant challenges to identifying the direct relationship between prison policies and inmate outcomes. The complex, simultaneous relationship between prison policies and inmate outcomes makes it extremely difficult for social scientists to identify the precise nature of any associations observed in the data or to draw causal inferences. Excepting a few rare instances of randomized, controlled trials in prison settings, it is most often necessary to use observational data and identify elements of random variation in assignment or exposure to various correctional policies in order to estimate the relationship between prison policy and inmate outcomes. Although deriving valid causal estimates of the effects of prison policies is challenging it is, nonetheless, important because understanding the effect of prison policies on inmate outcomes while they are in prison helps us to better understand what it means to rely on incarceration as the dominant crime control strategy in the United States.

1.2 Mass Incarceration in the United States

The scale of incarceration in the United States is overwhelming and has been described as a new form of "American exceptionalism" (Raphael and Stoll, 2013). The United States has, by far, the highest incarceration rate in the world - 716 inmates per 100,000 residents. The U.S. represents approximately 4.5% of the world's population, but houses over 22% of the world's prisoners. The U.S. incarceration rate is nearly 50% higher than the next closest major industrialized nation, the Russian Federation with an incarceration rate of 481 per 100,000 residents. As can be seen in Figure 5.1 comparisons to other G8 nations are even more staggering with all of the nations except Russia having incarceration rates under 150 per 100,000 residents. In fact, more than half the countries (54%) in the world have incarceration rates below 150 per 100,000 residents. The median rate across all countries is 135 per 100,000. The U.S. incarceration rate is more than 5.25 times the median incarceration rate among countries and territories in the world. Among the adult population in the United States, nearly 1 in 100 individuals over the age of 18 is incarcerated.

Well over half (65%) of the incarcerated population in the United States is in prison (Golinelli and Carson, 2013).[1] The total imprisonment rate in the United States is 480 prisoners per 100,000 residents, or 626 prisoners per 100,000 U.S. residents over 18 years of age. The rates vary substantially by gender, there are 910 men in prison per 100,000 U.S. males and 63 women in prison per 100,000 U.S. females.

The U.S. incarceration rates have not always been so dramatically high. In fact, between 1925 and 1975 the U.S. prison incarceration rate was relatively stable right around 110 prisoners per 100,000 U.S. residents (Figure 5.2). It was so stable, in fact, that it was the principle empirical case presented in Blumstein and Cohen's (1973) theory of stable punishment. At the time of Blumstein's article, the peak U.S. incarceration rate was 131.5 prisoners per 100,000 U.S. residents in 1940. For the period between 1930-1970 the average prison incarceration rate in the U.S. was 110.2 prisoners per 100,000 U.S. residents with a standard deviation of 8.9 prisoners per 100,000 U.S. residents. Blumstein and Cohen showed that even as the U.S. population grew by over 50% over the period and crime rates rose - outpacing population growth - toward the end of the period (in the decade between 1960-1970) the prison incarceration rate remained stable. The remarkable stability over the period suggested that tolerance of marginal crimes was being weighed against the social costs of too large an incarceration rate, a phenomenon Blumstein and Cohen dubbed the "theory of stable punishment."

Yet, even as they observed a stable incarceration rate, Blumstein and Cohen highlighted

[1] The principle reason distinguishing between the total incarceration rate and the prison incarceration rate is important in that the total incarceration rate includes individuals who are incarcerated in prisons as well as those incarcerated in county jails. There are several differences between jail and prison incarceration. Chief among them is that of the over 735,000 inmates held in U.S. jails on average on a given day, fewer than half (approximately 40%) have been convicted of a crime (Minton, 2013); in contrast to prisons where 100% of the inmates have been convicted.

the staggering 740% increase in the drug and narcotics crime rate in the final decade of their study period. The theory of stable punishment would have predicted a shift away from incarceration toward community supervision for non-victim crimes like drug and narcotics violations to accommodate the increase and maintain a relatively steady incarceration rate, instead the incarceration rate began to rise steadily and between 1978 and at its peak in 2008 the rate had nearly quadrupled (Figure 5.3).[2] While prison incarceration rates from 1925-1975 do seem relatively stable, there is some evidence that the apparent stability is a plateau in a longer upward trend. Margaret Cahalan (1979) shows that though there are periods (some of them quite lengthy) of relative stability in the U.S. prison incarceration rate inclusion of data from before 1925 reveals a "fluctuating but significant trend towards the increased use of incarceration reported from 1880 to 1970" (Cahalan, 1979, p.10). Indeed, Blumstein and Moitra (1979) later revised the original hypothesis of stable punishment to reflect periods of relative stability punctuated by sharp increases in the incarceration rate that correspond with periods of structural economic, social, or political change. This updated theory is more consistent with the increases in incarceration prior to 1925 and also between 1930 and 1940.

Writing about the incarceration booms between 1930 and 1940 and then again between 1980 and 1998, David Weiman and Christopher Weiss (2009) note that "moral panic" and the associated prohibition of alcohol (during Prohibition in the former period) and drugs (during the War on Drugs in the latter period) have spurred periods of rapid growth in incarceration. Weiman and Weiss are sympathetic to the notion that punishment is stable but punctuated by periods of transition, noting that the increases in incarceration between the late 1970's and late 1990's could be "yet another transition phase to an even higher plane" (Weiman and Weiss, 2009, p.102). However, the authors point out that such a conclusion would be premature without more evidence of what happens to the incarceration rates after the late 1990's, when the incarceration rates "seem to level off again" (Weiman and Weiss, 2009, p. 102). Their warning proved sound, because while the pace of growth in prison incarceration did appear to slow somewhat after 1998, the prison incarceration rate was still very much on the rise until its most recent peak in 2007. Even now, after five years of declining prison incarceration rates the prison incarceration rate would be unimaginable to someone writing about incarceration rates in the late 1970s.

[2] According to Bureau of Justice Statistics, the prison incarceration rate in 1978 was 131 prisoners per 100,000 U.S. residents. The incarceration rate peaked in 2007 and remained at its height until 2008 at 506 prisoners per 100,000 U.S. residents. The peak incarceration rate in 2007 and 2008 was 386% of the 1978 rate.

It is possible, that differences between U.S. incarceration rates across nations and over time are due to a higher propensity of Americans to commit crime (compared to other nations and compared to past propensities). Steven Raphael and Michael Stoll (2013) note that there is overwhelming empirical evidence to suggest that the growth in incarceration is attributable to changes to sentencing policy in the U.S. as opposed to a much higher propensity of individuals to commit crimes. Raphael and Stoll (2013) show via simulation results that increases in incarceration along both the extensive and intensive margins have contributed to the rapid, sustained growth in incarceration rates since 1980. In other words, more people are being sent to prison (extensive margin) and people in prison are serving longer sentences (intensive). However, the contributors to growth differ between state incarceration and the federal system.[3] By simulating incarceration rates under various kinds of sentencing regimes, Raphael and Stoll were able to show that more prison admissions are the principle driver of growth in state incarceration, with longer prison sentences playing a smaller, but not insignificant role. By contrast, in the federal system, increased prison admissions and longer time served contribute more evenly to the growth in the federal incarceration rate. In both systems, changes in sentencing policy for drug offenses contributed to increases in the incarceration rate. Fifty percent of the growth in the federal incarceration rate is attributable to more punitive drug policies, whereas 20% of the growth in state prison incarceration is driven by changes in drug policies. While one-fifth is a sizeable contribution, fully half of the growth in state prison incarceration rates is attributable to sending more people to prison for violent offenses for longer periods of time, and that this has "little to do with higher clearance rates by arrest" (Raphael and Stoll, 2013, p. 89).

Both the magnitude of the incarceration rate and the rate of growth in incarceration since 1975 establish the U.S. as unique among other developed nations in its use of incarceration, but the U.S. rates disguise substantial variation in incarceration at the state level. Figure 5.4 shows incarceration rates by state over the decades since 1980. Darker shading in the map indicates higher incarceration rates. As can be seen in the figure, the maps darken in general over time. In fact, after 1980 there are no states with incarceration rates under 50 prisoners per 100,000 residents and by 2000, there were no U.S. states with incarceration rates under 100 per 100,000 residents. In addition to higher incarceration rates across states, several regional patterns emerge from the maps in Figure 5.4. First, incarceration rates are highest in southern states. Second, northeastern states (along with Minnesota and North Dakota) have consistently lower incarceration rates than other states. Third, while most states increase their incarceration rates over time, some states have lowered their incarceration rates

[3]In the United States there are fifty independent state prison systems and a federal prison system.

over the period between 1980 and 2010. Most notably, the state of New York.

Figure 5.5 shows the variation in incarceration rates across states for 2011, which is the most recent year available from the Bureau of Justice Statistics. The highest state incarceration rate is Louisiana at 868 prisoners per 100,000 residents. As can be seen from the map, other southern states, like Texas, Oklahoma, Alabama and Mississippi, that border Louisiana have among the highest incarceration rates in the nation. Each of these states have prison incarceration rates in excess of 500 prisoners per 100,000 residents.

By contrast, there are states that have incarceration rates well below the national average: Maine, New Hampshire, Massachusetts, Rhode Island, and Minnesota all have incarceration rates below 200 prisoners per 100,000 residents. The lowest state incarceration rate in 2011 was Maine at 147 prisoners per 100,000 residents. Though it is the lowest of the state incarceration rates in the United States, if Maine were a country it would rank in the middle of the distribution of incarceration rates across the world.[4]

The substantial variation in state incarceration rates suggests that efforts to better understand the effects of prison policies should account for cross-state differences. In the context of this dissertation, estimates of the effect of visitation on institutional misconduct are derived using state fixed effects and estimates of the effect of facility security classification on the incidence of rules violation reports are derived using a sample of California inmates.

The empirical results estimated in this dissertation contribute to the extant knowledge about the effects of correctional policies on inmate outcomes. Understanding how correctional policies shape in-prison behavior, of both inmates and custody staff, also contributes to our understanding of how incarceration affects individuals, their families and their communities post-release. Ultimately, the results of this dissertation contribute in some part to a better understanding of what it means to use incarceration so extensively in the United States.

[4] That this comparison might be even more dramatic than it seems because the World Prison Brief reports total incarceration rates and Maine's rate of 147 prisoners per 100,000 residents reflects only prison inmates.

2 The Effect of Visitation on Prison Misconduct

2.1 Introduction

There is evidence that the general prison environment coupled with acculturation to prison norms (Carceral et al., 2003; Sykes, 1958) and the behaviors of one's incarcerated peers (Bayer et al., 2009; Lerman, 2009) increases the likelihood of behavioral infractions in prison. Maintaining contact with one's family and friends may serve as a counterweight to the isolation and negative peer influences experienced while incarcerated. Contact may occur through letter writing, telephone calls, or in-person visits from family and friends while incarcerated. This paper uses the 2004 Survey of Inmates in State Corrections Facilities (SISCF), a nationally-representative survey of state prison inmates, to assess whether receiving visits in prison affects the degree to which inmates are written-up for behavioral infractions.

While many studies attempt to identify the relationship between the prison environment and inmate behavior (Gendreau et al., 1997; Steiner et al., 2008), few consider the influence of contact with the outside world. Empirically, the relationship between contact with those outside prison and inmate behavior is unknown. The few studies that include measures of inmate contact with the outside world (Jiang and Fisher-Giorlando, 2002; Wooldredge, 1994, 1998) do not address the potential endogeneity in visitation.

There are several threats to the internal validity of an observational study of the relationship between prison visits and inmate behavior. First, those inmates who are perhaps the least agreeable may have had less dense social networks prior to incarceration. Those inmates will both be more likely to transgress while incarcerated and have few visitors. Second, deterioration of an inmate's behavior may discourage visits from family and friends. On the other hand, some families or friends who believe that an inmate is having trouble adjusting to the prison environment might visit more often in order to compensate for the inmate's troubles; these inmates might have more behavioral infractions and receive more visits. In any of these cases, direct estimation of the relationship between visitation and misconduct would lead to a spurious correlation between visits and behavioral problems.

To overcome these threats to internal validity, this paper exploits variation in the physical distance between an inmate's home community and place of incarceration. I use the distance between an inmate's institution of incarceration and home community as an instrument for whether an inmate is visited in prison in order to identify the effect of visits on behavioral outcomes. Results derived using instrumental variables estimation suggest that receiving visits from friends or family reduces certain types of behavioral misconduct. The instrumental variables results suggest that visitation reduces any misconduct by 8.62%. The two stage least squares (2SLS) estimates also reveal a significant negative relationship between visits and behavioral misconduct for several outcomes including possession of a weapon, verbal and physical assault on another inmate, and being out of place. The results suggest that visitation increases safety for correctional staff by decreasing possession of a weapon by 5.4%. The results also show that visitation reduces verbal assault on other inmates by 8.75% and physical assault on other inmates by 10.5%. Exploration of local average treatment effects reveals that the effect of visitation is strongest for younger inmates, those who have served more than a year in prison, those with no prior incarcerations, and those closest to release. On the whole, the findings suggest that there may be ways to reduce prison misconduct without resorting to increased suppression measures like additional isolation.

In this paper, I will first establish a strong first stage relationship between distance from home and likelihood of receiving a visit, then I will argue that the only impact of distance on the outcomes of interest is through the effect of distance on visits. In other words, I propose that distance is uncorrelated with the random component in the model that predicts the effect of visitation on prison misconduct. Next, I will present results from several specifications both assuming a common effect of visitation on behavior across inmates and then organizing the sample by several characteristics that might influence the extent to which visitation might affect misconduct (age, time served, number of prior incarcerations, and time to release) in order to explore heterogeneity in the effect sizes. Finally, I will probe the robustness of the results by estimating the models with a group of inmates who report that they are not eligible to receive visits.

2.2 Determinants of Prison Misconduct

There are often dramatic differences in rates of prison misconduct across inmates; some inmates serve long sentences without incident, others occasionally engage in misconduct, while still others regularly violate prison rules. Differences in the incidence or prevalence of prison misconduct across inmates may be driven by observed or unobserved differences in inmate characteristics and experiences prior to incarceration (Irwin and Cressey, 1962) and observed or unobserved differences in how an inmate adjusts to the physical confines of the prison, institutional rules, regulations and incentives, and inmate culture (Carceral et al., 2003; Sykes, 1958). Researchers have constructed models of inmate behavior in attempts to disentangle the effects of observed indicators of inmate socialization from unobserved heterogeneity among inmates.

Inmates do not come to prison as blank slates; it stands to reason that inmate behavior in prison would be influenced by pre-prison experiences. Irwin and Cressey (1962) argued that inmate socialization prior to incarceration is the principal determinant of behavior during incarceration and that the familial, social and cultural context in which an inmate functions prior to imprisonment drives how that inmate will behave in the prison environment, including the decision to commit or abstain from misconduct. Most pre-incarceration socialization remains unobserved to the researcher, such as the ways in which inmates developed responses to authority or to conflict in the home or other social settings.

However, some features of pre-incarceration socialization are observable. Education level, marital status, and employment are considered measures of pre-incarceration community stability, which have been found to negatively influence propensity for prison misconduct (Cunningham et al., 2005; Van Voorhis, 1994); though Berk et al. (2003b) found that "stability factors" had limited use for predicting prison misconduct. Other observable characteristics related to pre-prison socialization might be positively related to prison misconduct. For example, time spent in foster care during childhood might be a de-stabilizing factor, as behavioral responses learned during time spent in foster care might influence propensity to commit misconduct in prison. Criminal history and prior incarcerations are also observed predictors of inmate behavior (Berk et al., 2003b; Steiner et al., 2008; Wooldredge, 1994). Finally, as with criminal behavior (Hirschi and Gottfredson, 1983; Laub and Sampson, 1993; Sampson and Laub, 2003) inmate age is inversely related to likelihood to commit misconduct and is perhaps the strongest predictor of prison misconduct (Adams, 1992; Gendreau et al., 1997; Wooldredge, 1991).

In addition to the behaviors that inmates bring with them to prison, during incarceration inmates are subject to a litany of policies and procedures and a built environment that is intended to influence their behavior and suppress misconduct. Most "administrative" or "managerial" factors can be observed, including prison security level, population (characteristics as well as crowding), staff to inmate ratio, number of correctional staff, facility design, etc. Other aspects of the prison environment that might affect behavior remain unobserved, including the influence of inmate culture (Carceral et al., 2003). For example, (Sykes, 1958) argued that living among other inmates generated an uneasy and insecure stance for inmates: "Regardless of the patterns of mutual aid and support which may flourish in the inmate population, there are sufficient numbers of outlaws within this group of outlaws to deprive the average prisoner of that sense of security which comes from living among men who can be reasonably expected to abide by the rules of society" (77). In addition to instilling a general feeling of insecurity, inmate culture is often characterized as promoting violence as a means of conflict resolution (Carceral et al., 2003; Sykes, 1958).

Inmates' environmental influences include both the immediate prison setting and outside factors such as contact with family and friends. Inmates send and receive letters and make phone calls, but visitation is "often the focal point for those inmates who receive outsiders" (Comfort, 2008, p. 100). Visitation policies and procedures can vary across states, and within states inmates are permitted different types of visits depending on inmate custody designation and security level. Visits generally fall into three categories: contact visits, which occur in a visiting area and allow for brief physical contact, non-contact visits during which the inmates and visitors are separated by some kind of partition; and family visits (also known as conjugal visits) during which visitors spend time overnight with inmates in a semi-private setting like a trailer on the prison grounds.[5]

Contact with one's outside social network might mitigate or exacerbate behavioral misconduct. Whether inmates are reconnecting with pre-prison stability during their visits, using the visits as a brief reprieve from the deprivations of the prison environment, or being reminded of things they are missing during their incarceration, contact with those outside the prison should be considered among the factors that effect inmate behavior. The determinants of inmate behavior then can be summarized as functions of the characteristics imported into the prison by the inmate or by members of the inmate's outside social network, or as those emergent from the deprivations of prison life.

Models of inmate misconduct that do not consider influences on behavior from outside the prison are likely insufficient to explain the determinants of prison misconduct. Yet, influences from outside the prison environment have been largely omitted from the literature that attempts to model predictors of inmate misconduct. A review of the literature by Steiner et al. (2008) identified 47 studies designed to model predictors of prison disorder; only four

[5]While it stands to reason that the different forms of visitation might differentially affect behavior, I will not be able to distinguish between them in this paper, because I only have one measure of visitation in these data.

(Jiang and Fisher-Giorlando, 2002; Jiang and Winfree, 2006; Wooldredge, 1994, 1998) included influences on behavior that come from outside prison.

Using inmate self-reports of committing misconduct, Wooldredge (1994) found that receiving monthly visits predicted a decrease in the likelihood of committing personal[6] and property crimes as well as the likelihood of being the victim of personal crimes. In 1998, Wooldredge found that receiving monthly visits predicted an increase in the likelihood of inmate victimization from physical assault and theft. These papers are concerned with various predictors of inmate misconduct rather than the identification of the effect of visits on misconduct. Jiang and Winfree (2006) set out to identify gender differences in the effect of social supports on prison misconduct but do not address threats to internal validity posed by indicators of social support like marital status and visitation. In order to identify the effect of visitation on misconduct, it is necessary to address the potential endogeneity of visitation.

2.3 Data & Empirical Strategy

2.3.1 Data

The data set for this paper is the 2004 Survey of Inmates in State Correctional Facilities (SISCF) (Bureau of Justice Statistics, 2007). The SISCF is a public-use data set that is a nationally representative survey of over 14,000 state prison inmates. The survey includes detailed, self-reported information on prisoner personal characteristics, prior criminal history, and behavioral misconduct while incarcerated (Table 6.1). Inmates in the sample are overwhelmingly male and U.S. born, just under half identify as white, 43% identify as black, and 18% identify as Hispanic. Well over half the sample report not graduating from high school. On average inmates in the sample have served 2.7 years in prison on their current sentence, the average inmate has 1.6 previous incarcerations and slightly fewer than 20% were on parole at the time they were arrested. Almost half the sample is currently serving time for a violent offense compared to similar proportions of property (20%) and drug (18.8%) crimes. A small portion of the sample (6%) reported a disabling mental health condition, defined as a mental health condition that prevents full participation in work, school or other activities.

The sample is designed to represent the nation's inmate population; as a consequence, inmates at a variety of security and custody levels are included in the sample, but since security

[6] Per Wooldredge's characterization, a "personal crime" is a robbery, aggravated injury, aggravated assault, or assault with a weapon

and custody regimes and terminology vary widely across states, there is no information in the data set on prison security level or custody designation. However, it is plausible that hours spent where the inmates sleep would be highly correlated with security level since inmates are confined to their cells for many hours at higher security levels − inmates in this sample report spending about 13 hours a day where they sleep on average, with slightly less than 1/3 of the sample reporting spending 17-24 hours a day where they sleep.

Almost half the sample has a family member who is currently or has been incarcerated; 16.4% are married, 19.7% are divorced and 42.4% report having children. The survey also asks whether an inmate received a visit in the past month. Just under one-third (29.5%) of the sample report receiving a visit from someone who is not their attorney in the month before the survey was administered.[7] The survey also includes a question regarding the distance between an inmate's current location and home community.[8]

Just over half of the sample reported being written up or found guilty of breaking any prison rules. These inmates were asked for details about the type of misconduct for which they had been written up or found guilty. Table 6.2 shows the proportion of inmates who report being written up or found guilty of misconduct by whether or not they had received a visit. The most prevalent types of misconduct are possession of an unauthorized substance or item that is not drugs, alcohol or a weapon (13.4%), which might include possession of tobacco, currency, or unauthorized media or technology (magazines, DVDs, cell phones); physical assault on another inmate (12.8%); being out of place (15.5%) and disobeying orders (24.5%). The mean number of violations reported was 3.03. There are very few significant differences in misconduct between inmates who reported receiving a visit and those who did not, and even the significant differences are fewer than two percentage points. Drug violations and possession of an unauthorized substance or item that is not drugs, alcohol, or a weapon were slightly more common among inmates who reported receiving a visit. However, fewer visited inmates reported violations for verbal assault on staff or other inmates.

2.3.2 Empirical Strategy

Direct estimation of the effect of visitation on prison misconduct ignores potentially confounding factors, leading to a potentially spurious correlation between visitation and mis-

[7]This characterization is the measure of visitation in the data.

[8]For the question about distance from home community, the respondent was asked whether the prison was 1) less than 50 miles from home, 2) 50-100 miles, 3) 101-500 miles, 4) 501-1,000 miles or 5) More than 1,000 miles.

conduct. Table 6.1 presents a comparison of the characteristics of inmates who receive visits and inmates who do not. Several significant differences suggest that visits may be correlated with unobservable behavioral issues among inmates. Inmates who receive visits are generally more educated, have fewer prior incarcerations, and are less likely to have been on parole prior to their most recent prison admission. Inmates who receive visits are also more likely to be married, anticipate being released sooner, and are less likely to have a disabling mental health condition. To be sure, I can control for all of these factors (and more) in OLS models of behavioral outcomes. However, there would still be several reasons to be concerned that there is selection on unobservable characteristics that might bias OLS results.

First, since the populations differ on these observed characteristics, it is likely that they differ on unobserved characteristics, hence there may be omitted variables confounding direct estimates of the effect of visitation on prison misconduct. For example, those inmates who are perhaps the least agreeable may have had less dense social networks prior to incarceration. Those inmates will be both more likely to transgress while incarcerated and have few visitors. Another omitted variables case might be that family members and friends of inmates who are having an especially hard time adjusting to the prison environment might visit that inmate more often, but that inmate might have more misconduct. Yet another plausible omitted variables story might be that inmates who get more visits might have stronger family ties or a more robust support network. If these family members are also more likely to send inmates material support in the form of money for commissary accounts or care packages then inmates who receive more visits might be more prone to victimization in prison. In addition to potential omitted variables, there might also be reverse causality confounding direct estimates of the effect of visitation on prison misconduct. In that case, deterioration of an inmate's behavior might result in fewer visits from an inmate's friends or family. If these or other potential confounds influence whether or not an inmate receives a visit OLS estimates of the effect of visits on behavioral outcomes will be biased.

Given the potential endogeneity in visitation, in order to derive causal estimates, we need to identify some random variation in visitation. Instrumental variables estimation isolates a portion of the variation in visitation that can be considered random. In the context of this paper, I use the physical distance between an inmate's home community and place of incarceration as an instrument for visitation. The identifying assumption is that distance from home affects the likelihood of committing a behavioral infraction only through its influence on whether or not an inmate receives a visit. Using only the variation in visitation that stems from physical distance to the inmate's home community to predict visitation, it is possible to estimate a valid causal estimate of the effect of visitation on prison misconduct.

Identifying valid causal estimates of the effect of visitation on misconduct using instrumental variables estimation requires establishing a relationship between the treatment, visitation, and the instrument − distance from home. Table 6.3 shows the proportion of inmates receiving visitors in the past month by distance from home. The distance categorization in Table 6.3 is drawn from the possible responses to the distance question in the SISCF; the two furthest distance categories have been combined to include all inmates, housed in-state[9] and incarcerated more than 500 miles from home.[10] This distribution is presented graphically in Figure 5.6, which shows a strong, negative relationship between distance from home community and whether or not the inmate reports receiving a visit. In other words, as distance from home increases fewer inmates report receiving a visit. The first-stage relationship between distance and visits is formally tested by estimating the following equation:

$$Visit_i = \beta_0 + \beta_1 Distance_i + \mathbf{X}_i\beta_2 + \delta_s + \epsilon_i \quad (1)$$

In Eq. (1), $Distance_i$ is a vector of dummy variables representing the distance categories 50-100 miles, 101-500 miles and 501+ miles, $\mathbf{X}_i$ is a vector of covariates listed in Section 2.7, and the δ_s term represents state-fixed effects.[11] The first stage regression predicts visi-

[9] There are no state indicators included in the data. State indicators have been imputed by assigning inmates to states based on the state of residence at time of arrest unless the inmate was not arrested in state of residence, in which case the state of arrest was used to identify state. Facilities were assigned to states by cross-tabulating inmate state with the unique facility identifier and assigning facility to state based on the clusters of inmates. Throughout this paper observations are assigned to states according to facility.

[10] The only state that is 1,000 miles across at the farthest point is Alaska. Seven inmates report being incarcerated more than 1,000 miles from home in a facility that has been identified as being in Alaska; these inmates have been included in the 501+ miles category. The remaining 272 inmates who report being 1,000 miles from home are likely housed out of state. Since the assignment process for sending inmates out of state is likely different from that of incarcerating inmates in state, these inmates have been excluded from the analysis. Robustness of the estimates to the inclusion of these "out of state" inmates is explored later in the paper.

[11] State indicators have been imputed using the following questions in the survey:

At the time of your arrest in what city or place did you live? (Variable: State) Did the controlling offense occur in that city, state? (Variable: Y/N) If no, in what city and state did the controlling offense occur? (Variable: State)

First, a "state of arrest" variable was created equal to "state of residence at time of arrest" unless the controlling offense did not occur in that city, in which case "state of arrest" equals "state where controlling offense occurred."

Second, "state of arrest" variable was cross-tabulated with the facility indicator in the data. Facilities are assigned to states based on where the clusters of inmates appear, which results in the "state of incarceration" variable.

While inmates could be assigned to states based on the "state of arrest" variable alone, the reasoning for the second step is that the objective is to identify the state of incarceration. The facility indicator tation using distance, state fixed effects and the vector of controls for inmate characteristics, isolating only the variation in visitation that is attributable to distance from home. First stage results are presented in Tables 6.4, 6.5, and 6.6. While the tables present only the coefficients from the excluded instruments, all the control variables listed in Section 2.7 are included in the first-stage model specification.

Tables 6.4, 6.5, and 6.6 characterize the distance-visits relationship. In the tables, I present the results from an F-test of the hypothesis that the proportion receiving visits is the same across all distance categories. With the exception of inmates who have served 16 or more years on their current sentence and inmates with 6-10 years until anticipated release, the F-statistics from a test of the significance of the cross-distance group differences in visiting rates exceed the critical F-statistic of 12.83 suggested by (Stock and Yogo, 2002) in a model with one endogenous regressor and three excluded instruments if the desired maximal bias is 0.15. In a model with one endogenous regressor and three excluded instruments with a desired maximal bias of 0.25, the Stock and Yogo critical F-statistic threshold is 7.80, which is reached by all the first stage relationships except for inmates who have served more than 16 years on their current sentence. It stands to reason that the distance-visits relationship might deteriorate when inmates have served significantly more than a decade in prison.

Exploring heterogeneity in the first stage relationship between distance and visits is key for understanding the local average treatment effects estimated by the IV. For all inmates, the F-statistic is 58.30 ($p < 0.000$). Distance from home is a strong predictor of the key explanatory variable of interest: visitation. Inmates who are housed farther from home are significantly less likely to receive a non-attorney visit.

The corresponding stage two regression, shown in Eq. (2), yields the relationship between the outcome variable, prison misconduct, and visitation driven by distance between place of incarceration and home:

$$Misconduct_i = \gamma_0 + \gamma_1 \hat{Visits}_i + \mathbf{X}_i\gamma_2 + \delta_s + \omega_i \tag{2}$$

is administrative (not self-reported) so it might be more accurate than the self-reported state indicators. Further, it is not possible for inmates incarcerated in the same facility to be in two different states. Finally, assignment of the facilities to states allows the several inmates who do not self-report a state of arrest to be captured by the state indicator.

States with large prison populations have the most observations. The potential drawbacks to this procedure are that the facilities have been assigned to the different states based on where inmate clusters appear, so there is some level of subjectivity in the assignment and not all the states appear (Hawaii, Maine, West Virginia and Wyoming are missing from the state of incarceration variable).

The predicted values for visitation $\hat{Visits}_i$ are plugged into the second stage regression in order to identify the coefficient γ_1, which is the estimate of the effect of visitation on the outcome of interest. The identifying assumption driving the empirical strategy is that distance between an inmate's place of incarceration and their home must be, at least, conditionally random. One potential threat to this assumption may be that the factors that determine inmate placement in a given facility could be related to inmate misconduct. By and large, inmates are assigned a security classification based on a relatively small number of observable inmate characteristics and placed in a facility within that classification based on space constraints. Security level is determined based on age, criminal and incarceration history, sentence length, and the characteristics of the current offense. While it is not possible to control for security classification directly in this paper, as the process differs across states and actual security classification is not reported, it is possible to control for many of the factors that commonly determine security scores such as age, offense type,[12] number of prior incarcerations, and age at first arrest.

In addition to controlling for factors that determine security level, it is also possible to control for number of hours spent where an inmate sleeps, which is related to security level in that at higher security level prisons inmates are confined to their cells for more hours during the day. To control flexibly for hours spent where the inmate sleeps dummy variables were included for whether an inmate spends 8 or fewer hours, between 9-16 hours, and between 17-24 hours a day in a cell or dorm. By and large, inmates are assigned to a facility within the state based on security level. I would argue that after controlling for the factors that determine security level the remaining variation in visitation attributable to distance is random.

However it would also be a threat to this identification strategy concerns the possibility that inmates are being transferred from facilities as a consequence of committing behavioral infractions. The SISCF asks inmates if they were transferred as a result of their behavioral infractions; fewer than 2% of inmates who reported behavioral infractions also reported that they were transferred as a disciplinary consequence of their violations. Among those inmates who were transferred as a consequence of prison misconduct, it is not known if the inmate was moved closer or farther away from home as a consequence of the behavioral violation. Given space constraints and the way inmates are assigned to facilities, it is not likely that distance from home is a factor in inmate disciplinary transfers. Furthermore, the instrumental vari-

[12] In the models, I use the offense types listed in the "Offense Codes for the National Corrections Reporting Program" (74 offense categories). I control for each offense separately and interact each offense with number of prior incarcerations from 1-5.

ables estimates are robust to dropping these inmates from the sample (see Table 6.15). As a consequence, it should not be enough to disqualify distance as an instrument for visitation.

One strategy for indirectly exploring the validity of the identification strategy is to assess whether observable covariates exhibit balance across the different values of the excluded instrument. Table 6.7 shows the distribution of the covariates across the categories of the instrument. The last two columns of the table present F-statistics from a test of the hypothesis that there is no difference between the means across the distance categories. In column (5), the F-statistic represents a raw difference in means. Some of the significant characteristics shown in column (5) may be driven by differences in the demographic characteristics of states of different sizes. For example, larger states such as California and Texas have larger Hispanic populations, and indeed, the means reflect this difference − the proportion Hispanic in the distance category with 501+ miles is 0.25 compared to less than 500 miles which range in proportion Hispanic from 0.15-0.18. Given the differences in the characteristics of states of different size, column (6) presents the F-statistic from a test of the hypothesis that there is no difference among the means of the different categories of the instrument within a given state. Controlling for state, the table shows that the differences in the proportion Hispanic across categories of the instrument is driven almost entirely by differences in the characteristics of states of different size. By and large, within states there is balance on the covariates across the categories of the instrument.

Given the strong relationship between distance from home and whether or not an inmate receives a visit and the likelihood that the exclusion restriction holds in this case, instrumental variables estimation should yield convincing causal estimates of the effect of visitation on the outcome variables of interest.

2.4 Empirical Results

This section presents empirical results first assuming a common treatment effect of distance driven visitation on whether or not an inmate reports being written up or found guilty of any misconduct on the total number of violations, and then on specific types of violations such as the possession of a weapon, verbal and physical assaults on staff and other inmates, among other types of misconduct. Then I will explore effect size heterogeneity by analyzing the effect of distance driven visitation on prison misconduct with the sample organized by inmate age, time served on current sentence, whether or not the inmate has a prior incarceration, and the amount of time until the inmate's anticipated release.

Table 6.8 contains estimates of the impact of distance-driven visitation on whether an inmate reports being written up or found guilty of misconduct. The table presents results from six model specifications. Column (1) presents the simple bivariate regression coefficient from a regression of the behavioral outcome, misconduct, on whether an inmate is visited. Column (2) presents results where visits are instrumented for using dummies for the distance categories in Tables 6.3 and 6.4−6.6. Columns (3) & (4) replicate models (1) & (2), adding a host of control variables representing demographic, offense and criminal history characteristics.[13] Column (5) presents OLS estimates from a model that includes controls and state fixed-effects. Finally, column (6) presents the preferred specification: two stage least squares (2SLS) estimates with covariates and state-fixed effects. Column (6) is the preferred specification because the two-stage least squares technique addresses the endogeneity in visitation, the state fixed effects isolate only within state variation - comparing only inmates in the same prison system, and it controls flexibly for many inmate characteristics (full list of controls listed in Section 2.7). The models include all inmates housed in-state and exclude all inmates who report that they are not eligible to receive visits. All standard errors have been clustered at the state level.

For any violation, I find no evidence of an impact of visitation on the likelihood of being written up or found guilty of any misconduct in any of the OLS specifications (columns 1, 3, and 5). The two-stage least squares specifications in Columns 2 & 4 show strong, significant, and negative impacts of visitation on any misconduct. The IV results from Column 4 suggest that distance driven visits reduce the likelihood of being written up or found guilty of misconduct by 15.4%. When state fixed effects are added to the model it's clear that some of that effect is driven by cross-state variation. Once state-fixed effects are added to the model, the estimate suggests that distance-driven visits reduce the likelihood of being written up or found guilty of misconduct by 8.6%. The results also show a significant reduction in the

[13] In columns (3), (4), (5) and (6), the covariates included in the model are dummy variables for age in 5 year increments from 21-65, dummy variables for female, white, black, Hispanic, U.S. citizenship, the education categories listed in Table 6.1; dummy variables for time served 1-3 years, 4-6 years, 7-10 years, 11-13 years, 14-17 years, 18-21 years, 22-25 years, and 26+ years; dummy variables for number of prior incarcerations from 1-5+ and for prior incarceration missing; dummy variables for each of the 74 offense categories listed in "Offense Codes for the National Corrections Reporting Program"; dummy variables for age at first arrest: Under 13, 14-15, 16-17, 18-19, 20-21, 22-23, 24-25, 26+; dummy variables for criminal justice status at arrest: parole, probation, escape; a dummy variable for whether any of the inmate's family members have served time; a dummy variable for self-reported disabling mental health condition; dummy variables for marital status: married, widowed, divorced, separated; a dummy variable for whether an inmate has children and for children missing; dummy variables for each year of anticipated release from 2004 to 2014 (or after); dummy variables for time spent in cell: 8 hours or less, 9-16 hours, and 17-24 hours.

total number of violations; the preferred specification shows a reduction of 2.5 in the total number of violations.

Given this relationship between visitation and misconduct, I explore the relationship between distance-driven visits and specific types of prison misconduct. The instrumental variables (IV) results from the preferred specification, shown in Table 6.8, reveal a significant negative effect of visits on behavioral misconduct for several outcomes: possession of a weapon, possession of stolen property, verbal and physical assault on another inmate, and being out of place. The results suggest that visitation increases safety for correctional staff by decreasing possession of weapons by 5.4%. The results also show that visitation significantly reduces conflict among inmates; the coefficient on verbal assaults on inmates is -5.79% and -8.61% for physical assaults on other inmates. The reductions in physical assault on another inmate are particularly noteworthy because, at 13.1%, it is among the most prevalent types of misconduct.

It is somewhat puzzling that, for the most part, there is no observed effect in the OLS models but there is an effect in the 2SLS models. This is most likely driven by heterogeneity in the effect of visits on behavioral outcomes in conjunction with heterogeneity in the effect of the instrument on visits. A priori, one would expect young men, relatively new inmates, and inmates with very long sentences (or no chance of getting out of prison) would present the greatest behavioral problems for the prison environment. The patterns in Tables 6.4−6.6 suggest that distance seems to matter the most in determining the likelihood of being visited for those without a prior incarceration and for those with 2-5 years until their anticipated release. Hence, the 2SLS estimates discussed above likely reflect the causal effects for these sub-groups for whom the likelihood of receiving a visit is the most influenced by distance between one's home and one's institution.

The results discussed above assume a common effect of visitation on inmates. It is reasonable to believe that inmates of different ages, or who have more or less time left on their sentence, or who have served multiple terms of incarceration, might react to visitation differently. In order to investigate these potential local average treatment effects, I estimate the effect of visitation on misconduct organizing the sample by different characteristics: age; time served; whether or not an inmate has a prior incarceration; and time to release. The intent is to develop a thorough characterization of how the effect of receiving visits on prison misconduct differs for inmates based on observable characteristics. Each table in this section presents results from the preferred specification, two stage least squares with covariates and state fixed effects, for each of the categories within each characteristic. For example, Table 6.9 show results from the preferred specification for each of the age categories: less than 25 years old, 26-35, 36-50, and 51+.

2.4.1 Age

A priori, it would seem that the younger inmates would be most problematic in the prison environment; the IV estimates suggest that they are also the most influenced by visits. Table 6.9 present estimates of the effect of visitation on prison misconduct by age category: less than 25 years old, 26-35, 36-50 and more than 50 years old. Visitation appears to affect younger inmates most. For any violation, there is a 24.2% reduction among inmates who are under 25 years old. For specific violations, there is a significant negative relationship between visitation and misconduct for several types of violations for inmates 35 years old or younger. Inmates under 25 years old are 6.32% less likely to possess stolen property. Inmates between 26-35 years old are less likely to be written up or found guilty of verbally assaulting staff or other inmates, are 10.5% less likely to physically assault another inmate, and are 14.4% less likely to be written up or found guilty of being out of place, which is among the most prevalent types of misconduct. The estimates also suggest that visitation would improve safety for correctional staff by decreasing physical assaults on staff; the estimates suggest a 6.74% reduction in assaults on staff for the youngest inmates and a 5.16% reduction in physical assaults on staff for inmates 26-35. The estimates suggest a reduction in total violations of 4.8 for inmates under 25 years old and 3.7 for inmates 26-35. There was also a significant negative relationship between visitation and minor violations related to facility orderliness and operation like use of abusive language, horseplay or failure to follow sanitary regulations for inmates under 35 years old.

2.4.2 Time Served

Inmates may experience visits differently based on the amount of time served in prison on the current sentence. To further explore heterogeneity in the effect of visitation on misconduct, I estimate the preferred specification by time served in years on the current sentence for inmates who have served less than one year, 2-5 years and 6-15 years. Since the first stage estimates in Table 6.5 do not show a sufficiently strong first stage relationship between distance and visits for inmates who have served 16 or more years on the current sentence, that category was omitted from this portion of the analysis.

A priori, it might be the case that at the beginning of a prison term any influence of visitation might be offset by inmate adjustments to prison culture. Indeed, the results show significant negative relationships between visitation and several types of misconduct for only those inmates who have served two or more years on their current prison sentence. Table 6.10 shows the influence of distance induced visitation on inmates by years served on their current sentence. The results indicate a negative relationship between distance driven visitation and verbal and physical assault on another inmate for all inmates who have served between 2 and 15 years on their current sentence. For those inmates who served between 2-5 years on their current sentence, distance driven visits reduce the likelihood of being written up or found guilty of possession of stolen property, being out of place, minor violations related to facility orderliness and operation, and other unspecified violations. It also reduced the total number of violations by 3.84. The results also show that for inmates who have served between 6 and 15 years on their current sentence, visitation significantly reduced the likelihood of being written up or found guilty of possession of a weapon by 12.5% as well as a reduction in the likelihood of verbal assaults on staff (15%). These results show that visitation can significantly reduce certain types of prison misconduct even for those inmates who have served many years in prison.

2.4.3 Prior Incarcerations

The time served measure may reflect the effect of an inmate's current incarceration on how the inmate experiences visitation; whereas whether an inmate has been incarcerated in the past might reflect how past incarceration experience influences the extent to which visitation affects misconduct. Table 6.11 presents 2SLS estimates with controls and state fixed effects for inmates who have never had a prior adult incarceration and inmates who report one or more prior adult incarcerations. A priori, one might assume that visitation would have the strongest effect on inmates with no prior incarcerations; these inmates may be more reliant on their outside social networks to influence their behavior. Indeed, the results in Table 6.11 show that inmates serving their first prison term were most influenced by visitation; they were 17.5% less likely to be written up or found guilty of any misconduct. They were also less likely to possess a weapon, possess stolen property, verbally assault staff, physically assault another inmate, be out of place, disobey orders, or be written up or found guilty of "major violations" such as work slowdowns, food strikes, setting fires and rioting, and minor violations related to facility orderliness and operation like use of abusive language, horseplay or failure to follow sanitary regulations. Inmates with no prior incarcerations also had 4.74 fewer violations.

For inmates with one or more prior incarcerations, there was a significant negative relationship between visitation and possession of a weapon (6.32%). Visitation also appears to reduce the likelihood of being written up or found guilty of verbal assault on another inmate by 8.81%. So it appears that though visitation may have a negative impact on a wide range of misconduct outcomes for those inmates who are serving their first prison term, it still has an effect, albeit more limited, for those inmates who have been to prison before.

While by and large the results suggest a negative relationship between distance driven visitation and misconduct, those inmates who have one or more prior incarcerations present a notable exception. The results suggest that these inmates are 6.4% more likely to be written up or found guilty of a drug violation. This is a sensible result, as visits from family and friends may be a conduit for the flow of drugs into prisons, and visitation might increase the suspicions of correctional administrators who might search visited inmates for contraband more often. The data do not allow me to test for the frequency of searches across inmates, so I cannot uncover the mechanism underlying the observed increase in drug violations among these inmates.

2.4.4 Time to Release

It is most likely that the effect of visitation is amplified for those inmates who are close to their anticipated release. Table 6.12 show 2SLS estimates with controls and state fixed effects with the sample organized by time to anticipated release: inmates with one year or less, 2-5 years, 6-10 years, and 11 or more years. These estimates suggest that inmates who are closer to release (fewer than 5 years) seem to be more strongly influenced by visitation. Inmates who anticipate being released in one year or less were 14.1% less likely to be written up or found guilty of any violation. They were also less likely to verbally assault staff or other inmates, physically assault other inmates, disobey orders, or be written up for minor violations related to facility orderliness or operations. Estimates also suggest a reduction in total violations of 1.89 for these inmates who have less than one year to serve on their current sentence.

Visitation also affects inmates who are between two and five years from their anticipated release. Visited inmates were 9.86% less likely to be written up for possessing a weapon, 4.2% less likely to be written up for possessing stolen property, and 14.9% less like to be written up for being out of place. The reduction in total violations for these inmates was 2.08. It is a sensible result that visitation most affects those closer to release, because these inmates may be seeking coping mechanisms for staying out of trouble as their release nears, which is particularly plausible for those inmates with less than one year remaining before release from prison.

The preceding analysis does suggest that the effect of visitation is stronger for some inmates than for others. For several types of violations, the impact of visitation is particularly strong for younger inmates, those who have served more than 1 year in prison, those with no prior incarcerations, and those closest to release.

2.5 Robustness Checks

To probe the robustness of the results to choices made in the estimation strategy, I estimate the results making two modifications to the sample. First, I estimate the results including all of the inmates in the sample including those who appear to be housed out of state. Then, I estimate the results excluding the inmates who reported being moved as a result of a disciplinary infraction.

In the full sample, 279 inmates report being housed more than 1,000 miles away from home. The only state that is more than 1,000 miles across is Alaska. Of the inmates who report being more than 1,000 miles away from home only 7 are identified as being in Alaska. The remaining 272 inmates are assumed to be incarcerated out of state. To this point, these inmates have been excluded from the analysis because of the concern that the assignment process for housing inmates out of state might be different from the one used to house inmates in-state and thus might violate the exclusion restriction that conditional on observed characteristics distance from home is plausibly randomly assigned. Table 6.13 presents the OLS and 2SLS estimates of the effect of visitation on misconduct on the full sample of inmates including those inmates who appear to be housed out of state.[14] Including these inmates, the preferred specification in Column (6) no longer shows a significant effect of visitation on misconduct for any violation. However, for the specific types of violations including the out of state inmates the results are similar to the analysis in Table 6.8. Including out of state inmates also suggests a significant negative relationship between visitation and verbal assault on staff.

Next, I explore the robustness of the results excluding inmates who report being transferred

[14] I tested the first stage relationship between distance and visits for each of the sample manipulations conducted. The strength of the first stage relationship is consistent for each of the robustness checks. In fact, after dropping inmates who are within one year of release or the inmates who report being transferred as a result of a disciplinary action the first stage relationship between distance and visitation is slightly stronger. The tables have been omitted for the sake of relative brevity, but results are available upon request.

as a result of a disciplinary action. As previously mentioned, it would be a problem for the exclusion restriction if inmates were systematically moved farther[15] from home in reaction to their misconduct. Transferring inmates to another facility is a costly disciplinary action; very few inmates are actually transferred as a result of misconduct. Of the inmates in the sample, only 148 report being transferred to another facility as a disciplinary action for their misconduct, which is 1.2% of the sample. The data shows which inmates report transfer to another facility as a result of the disciplinary action, but not whether those inmates were moved closer or farther away from home. To probe the robustness of the results, the models were re-estimated dropping the 148 inmates who report being transferred as a disciplinary action. Table 6.15 presents OLS and 2SLS estimates of the relationship between visitation and misconduct. The results from the preferred specification in Column (6) show that the results are robust to dropping those inmates who report being transferred as a disciplinary action for misconduct.

2.6 Conclusion

In sum, the results of the analysis, assuming a common effect of visitation across inmates, establish a negative relationship between visitation and several types of misconduct including possession of a weapon, possession of stolen property, verbal and physical assault on another inmate, and being out of place as well as reductions in total number of violations. Exploration of local average treatment effects reveal that the effect of visitation is strongest for younger inmates, those who have served more than a year in prison, those with no prior incarcerations, and those closest to release.

While this is the first paper to address endogeneity in the estimation of the effect of visitation on misconduct, the data available for this paper are somewhat limiting. Ideally, the data would allow for a richer characterization of visitation including additional information on the relationship of the visitor to the inmate; the frequency of visitation over a certain period of time; and the type of visit, whether it be a non-contact visit where the inmate communicates with the visitors behind glass (usually over the phone), a contact visit where inmates and visitors spend time in a visitation area and are allowed limited physical contact, or a family visit where inmates and visitors stay overnight in designated trailers on the prison grounds. This data set only relates whether an inmate reported a visit from someone who was not their attorney in the past month, and the cross-section does not allow for following

[15] Incidentally, it would also be a problem for the exclusion restriction if inmates were moved systematically closer to home as a result of misconduct, though this scenario seems less likely as a punishment for misconduct.

the relationship between visitation and misconduct over time.

Another limitation of this paper is that the measure of visitation is visits within the last month, but the misconduct is not measured over the same period. While this is a limitation, it should not be a first-order concern because past behavior is correlated with future behavior for both visits and misconduct.

Given the limitations of the data, this paper offers a contribution to the understanding of the factors contributing to prison misconduct. While much of the prior research focuses on post-release outcomes, the study of in-prison behavior is still an important area for study, because behavioral infractions disrupt rehabilitative programming and contribute to the hostility of the prison environment. Prison administrators are constantly seeking methods to reduce misconduct and improve overall prison security. Most often, attempts to stem prison misconduct involve increasing the severity of prison conditions. Attempts to reduce misconduct are often characterized to varying degrees by limiting movement within the prison, limiting participation in prison work and programming, and limiting contact with other inmates and staff. At the extreme, inmates with the highest incidences of misconduct are often housed in maximum security units where they are confined to their cells for 22 or 23 hours a day and sometimes the only time spent outside the cell is spent in isolation in a cage (Pizarro and Stenius, 2004; Riveland, 1999). In some cases, when inmates are moved from their cells they are handcuffed, shackled at the ankle with the handcuffs and shackles bound to the waist and escorted by one or more officers wherever they go within the prison. These inmates may receive very little human contact during their incarceration, with communication occurring via intercom and lights and doors operated via remote control (Riveland, 1999). However, these inmates do generally receive visits even while incarcerated in the "supermax" style environment (Riveland, 1999). While this paper is unable to differentiate the effects of visitation on these inmates who have the highest incidences or most severe incidents of misconduct, the findings in this paper point to the potential effectiveness of methods of reducing prison misconduct other than those involving an increase in isolation or severity of punishment within the prison. Specifically, the findings suggest that keeping people close to home and facilitating connections to their outside social networks may be a viable pathway to decreasing prison misconduct, thereby improving the safety and security of the prison environment.

Understanding the relationship between prison visits and inmate behavior is particularly relevant given recent efforts to increase what are already substantial barriers to prison visitation. In 2011, the New York Times reported that the state of Arizona was starting to charge a fee to visit an inmate incarcerated in an Arizona prison (Goode, 2011). The findings of this paper suggest that policymakers should consider that facilitating visits rather than increasing barriers to visitation may have a positive effect on safety and security in the prison environment. That being said, moving inmates closer to home is not a costless option, and further analysis is needed to determine whether the benefits of moving inmates closer to home outweigh the costs.

2.7 Appendix: List of Covariates

Control variables included in the models are dummy variables for age in 5 year increments from 21-65, dummy variables for female, white, black, Hispanic, U.S. citizenship, the education categories listed in Table 6.1; dummy variables for time served 1-3 years, 4-6 years, 7-10 years, 11-13 years, 14-17 years, 18-21 years, 22-25 years, and 26+ years; dummy variables for number of prior incarcerations from 1-5+ and for prior incarceration missing; dummy variables for each of the 74 offense categories listed in "Offense Codes for the National Corrections Reporting Program"; dummy variables for age at first arrest: Under 13, 14-15, 16-17, 18-19, 20-21, 22-23, 24-25, 26+; dummy variables for criminal justice status at arrest: parole, probation, escape; a dummy variable for whether any of the inmate's family members have served time; a dummy variable for self-reported disabling mental health condition; dummy variables for marital status: married, widowed, divorced, separated; a dummy variable for whether an inmate has children and for children missing; dummy variables for each year of anticipated release from 2004 to 2014 (or after); dummy variables for time spent in cell: 8 hours or less, 9-16 hours, and 17-24 hours.

3 The Effect of Facility Security Classification on Serious Rules Violation Reports in California Prisons: A Regression Discontinuity Design

3.1 Introduction

The effect of living conditions and interaction with peers are of particular interest when considering the determinants of prison misconduct. Both living conditions and interaction with peers and staff are predominately determined by security classification. In a low security level facility, inmates may be housed in dormitory settings and may have access to group programming or work assignments. In a high security facility, inmates may be housed in cells (alone or with a cellmate) and may spend most of their time confined to their cells with limited opportunities for recreation which might be with a group, but might also be solitary (each individual confined to a separate cage for recreation).

Security classification is intended to recognize heterogeneity in the inmate population with regard to propensity to commit misconduct and to appropriately house inmates with varying levels of violent and/or antisocial behavior while they are incarcerated. The intent of security classification tools is to increase safety for staff and other inmates, but little is known about the effect of facility security level on prison misconduct. In this study, I will attempt to identify the relationship between facility security level and the incidence of serious rules violation reports (RVRs) using a regression discontinuity (RD) design.

Theoretically, the effect of facility security level can be decomposed into two different effect types: 1) suppression effects, which result from increases in both formal and informal social control as prisons increase in security level and 2) peer effects, which result from an inmate's interaction with peers. The relationship between the two effect types is not clear. It is reasonable to hypothesize that as security classification level goes down (and thus the suppression measures decrease) that the peer effects might become more positive (as the peers get less "risky"). Whereas, if peer effects do not vary across security levels (all peer influence is negative regardless of level) then as security level goes down peer effects might become more negative, because access to peers increases as suppression measures decrease. In this paper, I will be able to detect the net effect of security classification on measures of prison misconduct. I will not be able to decompose the effects into the portion attributable to peers and the portion attributable to suppression.

In addition, because I am using administrative data, the measure of prison misconduct is the incidence of *reported* misconduct. This means that not only will I not be able to account for inmate behavior that is undetected by prison staff, but that I will also be unable to account for incidents of misconduct that are discovered by prison staff, but ultimately left undocumented using a RVR. While RVRs should be a fairly accurate proxy for known incidents of violent or other grave types of misconduct, they may be a less accurate measure of the lowest level violations, like bartering, refusing to go to a work assignment, poor hygeine, or gambling, for which custody staff may be more likely to exercise discretion as to whether or not they document the incident using a RVR. However, even without the ability to decompose peer and suppression effects or to measure the effects of facility security classification on inmate behavior directly, this paper will provide a more rigorous analysis than previous work of the direct relationship between prison living conditions and the incidence of serious rules violations reports (RVRs).

The obvious threat to the internal validity of a study of the effect of facility security level on the incidence of serious RVRs is that inmates are systematically assigned to each security level based on predicted risk of misconduct. As a consequence, I cannot simply compare the behavior of inmates across security levels. However, it is possible to exploit the features of the classification system to identify the causal relationship of facility security level on prison misconduct. Using a regression discontinuity (RD) design I can compare inmates on either side of the score thresholds under the assumption that within a certain distance of the threshold the observed and unobserved differences between inmates on either side of the cutoff are comparable.

To analyze the effect of facility security level on the incidence of serious RVRs, I use preliminary classification scores from the California Department of Corrections and Rehabilitation (CDCR) in 2008. Inmates in California prisons are assigned to four facility security levels ranging from Level I (minimum security facilities) to Level IV (maximum security facilities). In this study, I estimate the effect of assignment to the higher of two adjacent security levels, for example, the effect of Level III relative to Level II. In order to properly execute the RD estimator, I test the validity of the RD design by checking the possible manipulation of the assignment variable as well as checking for balance on observed, predetermined covariates for the groups of inmates just above and just below the score cutoff. Based on several measures, I argue that the assumptions for a valid RD design are met, and then I use local linear regressions (LLR) to derive the RD estimates.

Based on the analysis, I find that inmates placed in a Level III facility are 8 percentage points less likely to incur a RVR than inmates placed in Level II, and that this result is driven almost entirely by a lower likelihood of write ups for Division E or F violations, which are the lowest level of violations eligible for write up as RVRs. I hypothesize that this result may be a result in differences in the priorities of custody staff as opposed to lower numbers of these types of violations at Level III prisons. In contrast to the findings between Levels II/III, I do not find an effect of facility security classification on the incidence of serious RVRs at the Level III/IV cutoff. This is in contrast to prior work which finds a suppression effect of the maximum security facilities.

3.2 Literature Review

Several studies have used RD designs to examine the effect of security classification on inmate outcomes. The earliest of these is Berk and de Leeuw (1999) who apply RD to a sample of 3,000 California inmates. They find that inmates with scores that would place them in Level IV are more likely to commit misconduct, but that the suppression effects of Level IV reduce misconduct. Although they note the presence of administrative overrides, their early application of RD utilizes a sharp design in which classification score is the only determinant of placement. In an attempt to account for the administrative overrides[16], they perform sensitivity analysis by "misallocating" inmates who would have been treatment observations as control observations. They find a treatment effect up to the point at which 20% of the sample has been "misallocated." It is worth noting that their estimates of the treatment effect begin to vary widely as they "misallocate" observations. In this paper, the application of a fuzzy RD design will account for the fact that classification score does not entirely determine facility security level placement. Furthermore, since the Berk and DeLeeuw study, the CDCR has redesigned both the objective classification instrument (excluding some predictor variables, adding some, and re-weighting others) and the classification process (adding mandatory minimum scores to standardize the staff overrides). These factors may explain why the results estimated in this paper differ from the suppression effect that Berk and DeLeeuw find at Level IV.

[16] Administrative overrides occur when classification staff place an inmate in a facility that does not match the security level indicated by the classification instrument. Administrative overrides can result in an inmate being placed either above or below the placement suggested by the classification score, but *almost always* results in placement in a higher level than the classification instrument suggests.

Camp and Gaes (2005) also studied the relationship between security classification and prison misconduct in California. They used experimental variation in security level to estimate the relationship between Level I (minimum security) and Level III (close security) inmates. When California revamped its classification process some inmates who, under the old system, would have been classified as Level I inmates were, under the new system, classified as Level III inmates. For a period of time, a sample of 561 inmates were randomly assigned to security level based on either the old system, the inmate was housed in Level I, or the new system, the inmate was housed in Level III. The authors found that 60% inmates classified under the new system as Level III engaged in misconduct of some kind within a two year follow-up period from initial classification whether they were housed in Level I or in Level III. They also found that inmates who were classified as Level III but housed in Level I were no more likely to commit serious misconduct than the inmates who were classified as Level III and also housed in Level III. The authors did not find this to be a surprising result because of previous work (Berecochea and Gibbs, 1991; Berk et al., 2003a; Berk and de Leeuw, 1999) which suggested that the only meaningful suppression effects in the California prison system were found in Level IV (maximum security). While the authors emphasize the statistical power of their estimates given the relatively small sample size, they do not discuss the threat to external validity posed by the sample population. The authors note that the two-level increase in security classification under the new system experienced by their sample is unusual, but they do not explore the differences between their sample inmates and other inmates in the California prison system (who experienced either no change under the new or old classification system or moved up or down one level). Furthermore, because of the constraints of the randomization the authors were only able to explore the differences between Level I and Level III, from a policy perspective the classification system only allows for inmates to move between adjacent levels so it would be a very unusual circumstance to observe similar movement between security levels in the future.

Other studies have used RD designs to identify the effect of security classification on other inmate outcomes like recidivism, criminal personality and criminal cognitions. Chen and Shapiro (2007) use RD to estimate the effect of security classification in federal prisons on recidivism. They found that the suppression measures in higher security prisons had no suppression effect on post-release crime, and that higher security levels might, in fact, lead to more recidivism. However, they were inhibited by small sample size resulting in low statistical power at the cutoff points.

Lerman (2009) used RD to study the impact of security classification on criminal personality and criminal cognitions in a sample of California inmates. She found that, among only those inmates with low prior criminal involvement, those just above the Level II/III cutoff (medium/close security levels) had higher scores for criminal personality and criminal cognitions than those just below the cutoff. She also investigated the impact of security level placement on self-reported in-prison social network, finding that inmates with classification scores immediately above the Level II/III cutoff had significantly more friends who were arrested, jailed and involved in gangs (Lerman, 2009). This finding is consistent with Vieraitis et al. (2007) description of prison as providing opportunities to develop an inmate's social network. In support of her argument that this result is not from associations outside prison, Lerman demonstrates that inmates assigned to a higher facility security level were more likely to join a gang in prison. In addition, those who were identified during reception as gang members were much more willing to self-identify as a gang member when assigned to a Level III prison as opposed to a Level II prison. According to Lerman, placement in a higher facility security level increases inmate risk of adopting anti-social norms.

This study contributes to the literature on the effects of prison security classification the following ways. First, since the data analyzed for this study includes all of the male inmates incarcerated in CDCR prisons for a full year starting in January of 2008, the sample size is large and allows for much more precision for statistical inference than prior studies of this kind. Second, in this paper I am able to implement the most up to date methods for RD designs and pay close attention to the mechanisms for inmate assignment to facility security level. As a result, I believe I will be able to identify the causal effect of facility security classification on the incidence of serious RVRs in California prisons.

3.3 The Inmate Classification System in California

In studying the California prison system, this study follows much of the previous work on the effect of facility security level on inmate outcomes. The CDCR is one of the largest prison systems in the United States. The State of California allocated $8.9 billion of General Fund monies to the CDCR in the 2013-14 budget cycle, which accounts for almost 9% of total General Fund allocations (California Department of Corrections and Rehabilitation, 2013). When the data for this paper was collected in 2009, the CDCR housed more than 166,000 inmates in 33 adult prisons, 39 conservation camps, and 13 Community Correctional Facilities across the state.

CDCR houses inmates in four different "facility security levels" ranging from Level I (minimum security) to Level IV (maximum security). Like many states, the CDCR uses an "objective" classification system to place prison inmates into security levels. "Objective" classification systems assign weighted values to characteristics that predict prison misconduct and combine the values into a single score. In 2003, California revised its inmate classification system. Under the revised system, inmates are assigned a preliminary classification score based on background characteristics and prior behavior while incarcerated using an "objective classification instrument" called CDCR Form 840 (Figure 5.8).[17] Table 6.19 shows all of the elements that comprise the preliminary classification score. The classification tool assigns weights to each of the predictive factors; for example, inmates are assigned points for sentence length (in years) multiplied by 2 with a 50 point maximum. Prison term in years, age at first arrest, and age at reception are weighted most heavily. Appendix 3.9 explains, in detail, how classification scores are calculated and provides detail on all the characteristics that contribute to the classification score as well as the assigned weights. For most inmates, the preliminary classification score is the final classification score, but approximately 28% of inmates have their preliminary score replaced with a "mandatory minimum point allocation." Mandatory minimum point allocations are triggered by the characteristics described in Table 6.18.

The two-tiered system which includes mandatory minimum point allocations was developed to make administrative determinations about inmate risk factors more transparent. Prior to the mandatory minimum point allocation system, administrators in the CDC would override the "objective" classification tool, when their notions about the factors that contributed to inmate risk conflicted with the prediction of the classification instrument. Under the updated system, these determinations have, by and large, been incorporated into the mandatory minimum allocations.

To determine assignment to one of four facility security levels, inmates are assigned a final classification score, or "placement score," which is the maximum of preliminary score or the mandatory minimum points. For example, an inmate with a preliminary score of 32 who is sentenced to life without the possibility of parole (LWOP) would be assigned a placement

[17] Three different forms are used in the CDCR classification process. Form 839 is the initial classification form, it is used when inmates are first admitted to prison on a given conviction. Form 840 is the reclassification form, it is used to update an inmate's classification score (usually on an annual basis). Form 841 is the readmission classification form, it is used when an inmate is returned to prison on a parole violation. The classification scores used in this paper are from Form 840.

score of 52, because the mandatory minimum score (52) is higher than the preliminary score. Whereas, an inmate with a preliminary score of 32 who has an Immigration and Customs Enforcement (ICE) hold would be assigned a placement score of 32, because the mandatory minimum score (19) is lower than the preliminary score. The inmate is then assigned to a facility of the level determined by the final classification score. Table 6.20 describes the four security levels and the associated point ranges. As can be seen in the table, higher security levels require increasing amounts of custody staff supervision and more infrastructure per inmate. These measures are designed to suppress the potential misconduct of higher risk inmates. This paper will estimate the composite effect of the varying levels of suppression measures and peer interaction on the incidence of serious rules violations.

3.4 The Relationship Between Facility Security Classification and Serious Rules Violation Reports

The principle reason to believe that facility security classification would influence the incidence of serious rules violation reports is that classification

> "affects not just housing but sets the tone for every aspect of an inmate's highly regulated existence: from the safety of an inmate's day-to-day environment to the amount of cell space that individual will have to the opportunities to participate in educational programs and employment...Depending on the facility to which an inmate is assigned, the chances for participating in education, work, and rehabilitation programs, associating with other inmates, maintaining family connections, and so on will range from fairly significant to virtually nonexistent"(Petersilia, 2006, p. 11)

Placement in higher security level housing may impact the incidence of behavioral infractions through several channels. First, the characteristics of the physical infrastructure and the increased supervision that accompany higher security levels may effectively suppress rules violations among inmates who would otherwise commit such infractions. I refer to this as the "suppression effect" of higher security levels. Alternatively, the average inmate in higher security level institutions is younger, more likely to be convicted for a violent offense, and through the system of classification and reclassification, more likely to have acquired serious RVRs in the past. Being housed with such inmates may increase the likelihood of getting into trouble through peer influences, a higher likelihood of conflict with another inmate, or possibly through an enhancement of anti-social attitudes associated with being housed with a more hardened population. I refer collectively to these potentially criminogenic effects of higher security level placement as "peer effects." The net effect of higher security level placement on inmate behavior will be the sum of the suppression and peer effects and can be either positive or negative. In addition to the potential effects of facility security level on inmate behavior, given that the available measure of infractions is RVRs, it is possible that holding inmate behavior constant custody staff might exercise discretion in documenting inmate behavior differently across facility security levels. This would be an effect of facility security level on the incidence of RVRs, but not necessarily an indicator of an effect on the incidence of misconduct.

In this paper, I estimate the net effect of placement in a higher facility security level on the incidence of RVRs. However, because of the differences between the adjacent facility security levels there may be different effects of placement at the next higher facility security level depending on the threshold. As a consequence, in the California prison system there are three potential facility security level treatments: placement in Level II relative to Level I, placement in Level III relative to Level II, and placement in Level IV relative to Level III.

3.4.1 Level I/II

There are substantial differences between Level I and Level II facilities. The principle difference between these two types of facilities is that Level II facilities have a secure perimeter and Level I facilities do not. As a result inmates in Level I are housed outside a secure perimeter, meaning that the perimeter of the facility is often an unguarded chain link fence as opposed to a prison wall with armed tower coverage. Furthermore, the maximum level of supervision for work and program assignments in Level I facilities is hourly supervision if the inmate is assigned outside the facility security perimeter, otherwise Level I facilities provide "sufficient staff supervision...to ensure the inmate is present"(California Code of Regulations, p. 214). In both types of facilities inmates are generally housed in open dormitories, inmates in Level I housing are exclusively housed in dormitory settings whereas some Level II facilities have celled housing. Unfortunately, reliable COMPSTAT data is not available for Level I facilities so it is not possible to compare average staffing or average violence levels for these two types of institutions (Lerman, 2013).

3.4.2 Level II/III

There are also significant differences between Level II and Level III facilities. Level II and III facilities have different housing types, staffing levels, levels of violence, and availability and participation in programming. First, inmates in Level II facilities are predominately housed in open dormitories whereas inmates housed in Level III facilities are primarily housed in cells (California Code of Regulations). Second, Level III facilities have 3 more custody staff per 100 inmates than Level II facilities (Lerman, 2013). Third, though levels II and III have similar capacity in vocational programming, Level II inmates successfully complete these programs at a much higher rate (Lerman, 2013). Fourth, Level II facilities have much more capacity in substance abuse treatment programs (Lerman, 2013). Finally, and perhaps most importantly, Level III facilities have more than double the number of violent disciplinary reports per 100 inmates than Level II facilities (Lerman, 2013).

3.4.3 Level III/IV

By contrast to the lower thresholds, there are fewer infrastructure differences between Level III and Level IV facilities. Inmates in both levels live in celled housing and most of these facilities are surrounded by lethal electrified fencing. All Level III and IV facilities have a secure perimeter that is staffed with armed officers. Despite similarities in the physical environments, there are many differences between Level III and IV facilities. First, just as Level III facilities are twice as violent as Level II facilities, Level IV facilities are substantially more violent than Level III facilities. According to the COMPSTAT data analyzed by Lerman (2013), Level IV facilities average 25.8 violent disciplinary reports per 100 inmates compared to an average of 11.25 violent disciplinary reports per 100 inmates in Level III facilities. Second, Level IV facilities have more than double the number of lockdowns, which substantially affect prison life because programs are canceled and inmates can be confined to cells for most or all of the day[18](Lerman, 2013). Third, Level IV institutions have approximately half the vocational program capacity of Level III facilities as well as much lower success rates (Lerman, 2013). Additionally, though Level III institutions have limited capacity for substance abuse treatment programs, Level IV facilities have no opportunities for participation in substance abuse treatment. Finally, participation in inmate groups is much lower at Level IV facilities. On average at Level IV facilities inmates participate in groups at a rate of 18.5 per 100 inmates compared to an average participation of 50.6 per 100 inmates

[18] During lockdowns programs are canceled for at least 24 hours. Full lockdowns affect all inmates in the facility, whereas partial lockdowns might include a particular housing unit or all inmates in a given race.

at Level III facilities (Lerman, 2013).

These differences between adjacent security levels in California represent the "treatment" of placement in the higher of two security levels. The analysis to follow attempts to estimate the effect of this treatment on the incidence of serious RVRs.

3.5 Data & Empirical Strategy

3.5.1 Data

The data for this paper includes all males housed in a CDCR institution for all of FY08/09 that are not on death row and for whom we can observe a complete review period between reclassification hearings. For this paper, I have limited the sample to inmates housed in state who are in Level I through Level IV; inmates who are in reception centers or other types of housing have been excluded.[19] The total sample consists of just over 60,000 inmates. For each inmate, the data set includes information on all RVRs acquired during the review period, demographic information about each inmate, information regarding sentencing and controlling offense, information on housing and security level, and information on several other personal and institutional characteristics.

Table 6.22 presents some descriptive statistics pertaining to inmates that are housed in Levels II through IV. The offense distributions reveal that inmates with violent controlling offenses inmates are more heavily represented among those in Levels III and IV, while inmates with non-violent controlling offenses are more likely to be housed in lower facility security levels. This is to be expected, because violent offenses usually carry longer sentence lengths which result in higher preliminary scores. Inmates in Level III and IV are more likely to suffer from serious mental illness;[20] whereas, sex offenders are more heavily represented in Levels II and III. As facility security level increases there are higher proportions of inmates in Sensitive Needs Yard[21] ; inmates also tend to be younger, have longer sentences, are more likely to be

[19]Inmates in reception centers either have not been classified or have been classified but have not been moved to a security level. Inmates in other types of housing including Secure Housing Unit (SHU), administrative segregation, the hospital, or Mental Health Crisis Bed have been excluded because the security classification points are not used as the assignment mechanism for those housing types.

[20]CDCR uses several indicators for mental illness. Enhanced Outpatient Program (EOP) is the indicator for serious mental illness, which is the indicator I am using to characterize mental health status.

[21]Though there is no formal definition in the Department Operations Manual or in Title 15, Sensitive Needs Yards (SNY) are separate areas within facility security levels where some inmates are segregated from the "mainline" population. More than 16,000 inmates in the sample are housed on an SNY. SNY is sometimes colloquially referred to as "protective custody." Inmates can either be assigned or can request to be housed in SNY. Inmates may be housed in an SNY for several reasons, including , but not limited to, because

in a street gang.

3.5.2 Empirical Strategy

A major methodological challenge in measuring the net effect of higher security level placement concerns the fact that inmate assignment to facility security levels is not random; in fact the assignment process assigns those inmates with a high likelihood of misconduct to higher security facilities. An ideal research design would randomly assign inmates to security levels and then observe their behavior over an evaluation period. Random assignment would ensure that inmate characteristics (both observed and unobserved) are not systematically related to facility security level assignment and that any observable differences in behavior between inmates in different security levels could be attributed to differences in facility security level. Such experimental analysis, of course, would require randomization in the assignment process, a condition that certainly does not describe CDCR's process for determining security levels.

In the absence of random assignment, I exploit the discontinuity in facility security level assignment created by the point thresholds to identify exogenous variation in security level assignment. Specifically, as facility security level assignment is determined in part by variation in an inmate's preliminary score, we would expect that inmates who are just above and just below a given point threshold will experience discretely different treatments in terms of their assigned housing levels. Since inmates with such similar scores are likely to be quite similar to one another in terms of observed and unobserved characteristics, and as it is possible to model the general relationship between rules violations and preliminary score, any discontinuous change in the likelihood of rules violations occurring around the point thresholds can be attributed to the corresponding change in the facility security level.

In this study, I estimate the effect of assignment to the higher of two adjacent facility security levels, meaning the effect of being incarcerated in a Level IV prison versus a Level III or a Level III prison relative to a Level II prison. As a consequence, for an inmate i, there are two potential outcomes; $Y_i(0)$ for the potential untreated outcome, which is placement in the lower level, and $Y_i(1)$ for potential treated outcome, placement in the higher level. For a given inmate i we observe the following:

$$Y_i = (1 - T_i)Y_i(0) + T_iY_i(1) \tag{3}$$

they have dropped out of a gang, have been convicted of a sex offense (especially one involving children), because of their sexual orientation, or because they have a high-notoriety case.

where $T_i \in \{0, 1\}$ denotes the binary indicator for the treatment.

The two-stage inmate classification system means that the relationship between the risk score as determined by the CDCR Form 840 does not perfectly determine placement into facility security level. As a consequence, a fuzzy regression discontinuity approach is necessary. A key design choice is whether to use preliminary score or placement score as the running variable for the RD design. Figures 5.9 and 5.10 show the empirical relative frequency distributions of the inmates in the sample across preliminary and placement scores. Figure 5.9 shows the empirical distribution of inmates according to their preliminary score one day prior to the beginning of the review period while Figure 5.10 shows the distribution of corresponding placement scores. In both figures inmates with 100 or more points are lumped together as one group. For reference, each figure also shows where the point cutoff levels are between the facility security levels. Figure 5.9 shows a fairly even distribution of inmates across the preliminary score values. There are large masses of inmates with preliminary scores of zero (nearly 15 percent) and with scores of 100 or more (nearly 10 percent). Figure 5.10 shows the effects of the system of mandatory minimums on placement scores. There are notable masses of inmates at 19, 28 and 52 points (the points just above the security threshold cutoffs). Nearly 28 percent of the inmates in the sample are constrained at these minimum levels and are unable to move to lower security levels as a result.

Choosing placement score over preliminary score as the running variable would have the advantage that it is more predictive of the treatment, facility security level, than preliminary score, since 28% of inmates have placement scores that differ from their preliminary scores due to a binding mandatory minimum. In other words, the predictive power of the point thresholds in determining facility security level placement is greater with placement score than with preliminary score. However, a crucial weakness of using placement score is that under the mandatory minimum system those inmates just above a threshold are notably and discretely different from those inmates just below a threshold. In particular, inmates above the thresholds via placement scores have key differences in sentences and controlling offense (more likely to be LWOP, a convicted sex offender, etc.) and have much lower average preliminary scores than those with placement scores just below (Figure 5.11). For this reason, the analysis to follow will be based on variation in facility security level assignment associated with preliminary score. Though the relationship between assignment to the "treatment" in the next higher facility security level and preliminary score is not perfectly deterministic, I will establish that observations with preliminary scores that cross the score cutoff have a significantly higher probability of placement in the next higher facility security level between

Levels II and III and Levels III and IV and, unlike placement score, there are no identifiable selection mechanisms that create large discontinuities in inmate characteristics around point thresholds when points are measured with preliminary score.

This research design depends crucially on there being discontinuous treatment at the score cutoffs. The larger the proportion of inmates experiencing a change in facility security level assignment as the preliminary score crosses the cutoff, the more precise the estimates of the effect of facility security level on behavior will be. Figures 5.13 and 5.14 show the strong relationship between the preliminary classification score and facility security level placement between Levels II and III and Levels III and IV. However, preliminary score does not have a strong relationship with placement in Level II relative to Level I (Figure 5.12). Since the estimates do not show a sufficiently strong relationship between preliminary score and assignment to Levels I/II, I omitted that threshold from the analysis.[22] Formal estimates of the first stage relationship are given in Table 6.23.

To estimate the causal effect of the treatment, it must be the case that the conditional expectation functions of potential outcomes are smooth functions of the running variable X_i. The assumption should hold in this case because there is no reason to believe that there would be discontinuities in the likelihood of serious rule violation reports for inmates with adjacent values of the preliminary score. In other words, while the likelihood of serious rule violation reports may be increasing as the value of the preliminary score increases, it should be increasing smoothly. Provided that the assumption holds, the average causal effect of the treatment (τ_i) is given by the fuzzy RD estimator

$$\tau_i = \frac{\lim_{x \uparrow c} E[Y_i \mid X_i = x] - \lim_{x \downarrow c} E[Y_i \mid X_i = x]}{\lim_{x \uparrow c} E[D_i \mid X_i = x] - \lim_{x \downarrow c} E[D_i \mid X_i = x]} \tag{4}$$

where D_i is an indicator for whether or not the inmate is assigned to the higher of two adjacent facility security levels and Y_i denotes the likelihood of a RVR for inmate i. Note that the estimate of the treatment effect is scaled by the proportion of inmates who received the treatment.

[22] As can be seen from the distribution of the preliminary and placement scores. There are so many inmates who qualify for the mandatory minimum at the Level II threshold there are often inmates with scores just above the threshold who are moved down because they are eligible. This is most likely because they are often seeking as many inmates as possible for minimum custody status (Level I). These inmates are generally used for labor at the Level IV prisons (most Level IVs have an adjoining level I) and because of the turnover of Level I inmates (non-violent, non-sex offenses with relatively short sentences) they are often looking for eligible inmates. It is most likely the case that CDCR administrators will assign inmates with Level II points if they meet all the other requirements for being housed outside the secure perimeter - especially if there is need for a specific project at a prison.

To estimate the conditional expectation functions in Equation (2), I need to estimate the conditional expectation functions to the left and right of the cutoff value for each of the thresholds (28 for Level II and III and 52 for Level III and IV). There are several approaches to estimate the conditional expectation functions, in this paper I use LLR[23] (Imbens and Lemieux, 2008), because the LLR nonparametrically provides a consistent estimator for the treatment effect in the context of a RD design. LLR estimation of the regression discontinuity is appropriate in this context despite the discrete nature of the running variable. Lee and Lemieux (2010) note that estimating the conditional expectation of the outcome at the cutoff requires extrapolation to some extent, even in the case of a continuous running variable. As a consequence, "the fact that we must do so in the case of a discrete assignment variable does not introduce particular complications from an econometric point of view, provided the discrete variable is not too coarsely distributed"(Lee and Lemieux, 2010, p. 336). The LLR estimator is based on minimizing the following:

$$\min_{\alpha_l,\beta_l} \sum_{i:C-h\leq X_i<C} [Y_i - \alpha_l - \beta_l(X_i - C)]^2 K\left(\frac{X_i - x}{h}\right) \tag{5}$$

and

$$\min_{\alpha_r,\beta_r} \sum_{i:C\leq X_i<C+h} [Y_i - \alpha_r - \beta_r(X_i - C)]^2 K\left(\frac{X_i - x}{h}\right) \tag{6}$$

$$\min_{\gamma_l,\delta_l} \sum_{i:C-h\leq X_i<C} [D_i - \gamma_l - \delta_l(X_i - C)]^2 K\left(\frac{X_i - x}{h}\right) \tag{7}$$

and

$$\min_{\gamma_r,\delta_r} \sum_{i:C\leq X_i<C+h} [D_i - \gamma_r - \delta_r(X_i - C)]^2 K\left(\frac{X_i - x}{h}\right) \tag{8}$$

where α_r, l, β_r, l, γ_r, l and δ_r, l correspond to the intercepts and the slope coefficients of the LLR estimator at the left and right of the cutoff C, respectively. As can be seen from the minimizations, I need to choose the kernel, $K\left(\frac{X_i-x}{h}\right)$, and the bandwidth, h. As noted in the extant literature, the choice of the kernel has little impact on the RD estimate. Though, Fan and Irene (1996) show that the triangle kernel is optimal for estimating the LLR at the cutoff. Following their suggestion, I use the triangle kernel.

Unlike the choice of kernel, the choice of bandwidth can have substantial effects on the RD estimates. Because there are multiple thresholds along the range of the running variable, the maximum bandwidth for the estimation is constrained by the distance between the thresh-

[23]I also estimated the results using local polynomial regressions and the results are consistent (see Subsection 3.7.1).

old values. Selection of bandwidth for the II/III cutoff is constrained by the score distance between the Level I/II cutoff at 19 and the Level II/III cutoff at 28. So, bandwidth cannot exceed 8 without extending to the margin of the next threshold. Because preliminary scores have no upper bound, maximum potential bandwidth of 24 for the Level III/IV cutoff is constrained by the lower bound, the Level III cutoff at 28 points. When displaying the results of the analysis, I present the sensitivity of the estimates to the choice of bandwidth.[24]

In order to derive valid causal estimates from the RD design, it must be the case that observations have imprecise control over the running variable (Lee and Lemieux, 2010) and that all other variables that may determine behavioral infractions (age, offense history, mental health status, etc.) vary continuously across the cutoffs. Regarding the first requirement, in the context of this paper, this requires that inmates are not able to precisely manipulate their preliminary score. To formally test whether inmates are gaming the score resulting in bunching on either side of the threshold, I use the density test proposed by McCrary (2008) that tests for continuity in the density of the running variable as it crosses the score cutoff.

Figures 5.15 and 5.16 show that the density of the running variable is smooth across the score cutoff. Each of the histograms have been generated with a binwidth of one, binning inmates with the same preliminary score. In this case, because the running variable only takes on integer score values, it is not possible to use the non-integer optimal binwidth proposed by the McCrary Test, because there are no observations in non-integer bins. As can be seen from the histograms in Figures 5.15 and 5.16, there does not appear to be manipulation at the score cutoff. Figure 5.15, shows a histogram of the density of the running variable across the Level II/III threshold using a bandwidth of 8. Based on this bandwidth, the discontinuity estimate from the McCrary Test is -0.050 with a standard error of 0.037 implying that the discontinuity estimate is not statistically significant at the II/III score cutoff. At the Level III/IV cutoff, the discontinuity estimate for a bandwidth of 8 is -0.030 with a standard error of 0.047 implying that the discontinuity estimate is also not statistically significant at the Level III/IV cutoff (Figure 5.16).

As presented in the simulation results in McCrary (2008), the discontinuity estimate is sensitive to the choice of bandwidth. Accordingly, McCrary (2008) recommends conducting a sensitivity test of the discontinuity estimate using varying bandwidths. Following this sug-

[24]Though there is no optimal bandwidth in the case of the RD using a discrete running variable, in some ways the discrete nature of the assignment variable simplifies the problem of bandwidth choice because estimates can be computed at all possible values of the running variable (Lee and Lemieux, 2010).

gestion, I present in the second graph of Figures 5.15 and 5.16, which plots the discontinuity estimates at the Level II/III and III/IV cutoffs derived from different bandwidths together with 95% confidence intervals. The second graph of Figure 5.15 presents discontinuity estimates for each of the possible bandwidths from 1-8. Only one of the eight discontinuity estimates is statistically significant indicating that by and large regardless of bandwidth choice, there appears to be continuity in the density of the running variable across the Level II/III cutoff. The Level III/IV cutoff has a much larger maximum bandwidth of 24. The second graph of Figure 5.16 presents discontinuity estimates for several bandwidths ranging from 4-24. Again, only one of the discontinuity estimates is statistically significant indicating that there appears to be continuity in the density of the running variable across the Level III/IV cutoff as well.

However, McCrary (2008) also notes that the density test can still fail to detect the manipulation of the assignment variable if it is the case that the number of inmates manipulating their preliminary score upward is offset by the number of inmates manipulating the their preliminary score downward. Hence, it is desirable to examine, more in detail, whether the precise gaming of the assignment variable is likely in the context of inmate classification. It is highly unlikely that inmates are gaming the assignment threshold, and even less likely that if gaming is occurring that the number of inmates manipulating themselves downward would be perfectly offset by the number of inmates manipulating themselves upward. This is predominately because the assumption is that all else being equal inmates would want to move down in facility security level. Even if it is the case that some inmates in the higher facility security level would not want to move down, there is very little chance that there are an equal number of inmates in the lower security level wanting to move back up in level. This would be the only instance in which we would not detect manipulation in the assignment variable using the McCrary density test even if it was occurring. Both the formal density test and the institutional background indicate that the current study does not suffer from sorting of inmates with respect to the running variable.

The second requirement for the RD to derive valid causal estimates is continuity in the baseline covariates at the cutoff. Since the RD design is based on the notion that the treatment is locally randomized at the cutoff, plotting the baseline characteristics against the assignment variable shows whether the characteristics are balanced across the cutoff. The rationale behind this idea is that if assignment to a higher facility security level is locally randomized, the baseline covariates should not show discontinuities at the threshold.

I test a number of baseline covariates for continuity at the cutoff points, including inmate age, race, sentence length, time served, offense type, street gang affliation, and mental health, sex offender, and Sensitive Needs Yard status. These variables are likely to be highly correlated with the likelihood of misconduct, and since these covariates are determined a priori, they should not show discontinuities at the threshold if the local randomization is valid. Figures 5.17 & 5.18 show histograms of the density of the baseline covariates at the cutoff points. The histograms have been plotted with binwidths of 1 and the maximum bandwidth at each level to show the density of the covariates across the full range of the data for the score cutoff. The line fit is conducted using the LLR with a triangle kernel. As can be seen in the figures, the covariates appear to have a smooth relationship at the Level II/III and Level III/IV cutoffs.

To provide a more formal analysis of the discontinuity estimate in the baseline covariates, I present RD estimates of the density of the covariates at the cutoff points obtained from LLR estimation using a triangle kernel, binwidth of 1 and varying bandwidths in Tables 6.24 and 6.25. As can be seen from the estimates in Table 6.24 the density of the baseline covariates is balanced across the Level II/III cutoff. By contrast, there are some significant discontinuities in the density of the baseline covariates across the Level III/IV cutoff. Inmates in Level IV are discontinuously 1.5 to 2 years younger; have served between 1 and 4 years longer in prison on their current sentence; and they are between 1-3 percentage points less likely to have been convicted of a property crime. At lower values of bandwidth, Level IV inmates are discontinuously less likely to be Asian (between 1.5 and 2.4 percentage points) and at higher bandwidths Level IV inmates are discontinuously more likely to be Hispanic.

Overall, the graphical displays and the formal RD estimates of the density of the baseline covariates imply that these predetermined characteristics are balanced across the score cutoffs for Level II/III, but less so for Level III/IV. As a result, I argue that the RD design will generate valid causal estimates at the Level II/III cutoff of the effect of facility security level placement on the likelihood of serious rule violations in California prisons. The relative imbalance of the covariates across the Level III/IV cutoff raises questions about the validity of the estimates at that threshold.

3.6 Results

To estimate the causal relationship between facility security placement on the incidence of prison misconduct I use the presence of a serious RVR as the outcome variable. California Code of Regulations Title 15 § 3315 defines a serious RVR as

> "a serious disciplinary offense not specified as administrative in section 3314(a)(3), an offense punishable as a misdemeanor, whether or not prosecution in undertaken, or is a felony, whether or not prosecution is undertaken. It involves any one or more of the following circumstances: (A) Use of force or violence against another person; (B) A breach of or hazard to facility security; (C) A serious disruption of facility operations; (D) The introduction, distribution, possession, or use of controlled substances, alcohol, or dangerous contraband; (E) An attempt or threat to commit any act listed in Sections (A) through (D), coupled with a present ability to carry out the threat or attempt if not prevented from doing so" (California Code of Regulations, p. 138).

Examples of serious RVRs include any activity that would qualify as a crime outside the prison; hideout, preparation to escape, or possession of escape paraphernalia; possession of contraband or controlled substances; bartering; manufacture of alcohol; refusing to work or participate in programs.

Throughout the analysis to follow, I estimate the effect of security placement on the incidence of any serious RVR (defined as a Division A through F violation), acquiring an A1 or A2 violation, acquiring a B, C, or D violation, or acquiring and E or F violation. RVRs range from the most serious A1 violations like murder, attempted murder, rape and other offenses resulting in serious bodily injury as well as distribution of a controlled substance to E and F violations which include bartering, possession of alcohol, refusal to work, engaging in consensual sexual acts and gambling. Table 6.21 provides examples of offenses that qualify for A-F violations. In addition to consequences imposed by CDCR, most RVRs can be referred for criminal prosecution; Division A-D offenses all qualify as felonies, Division E offenses qualify as misdemeanors and Division F offenses are not eligible for further criminal prosecution. All types of RVRs can result in loss of credit, effectively extending an inmate's prison sentence.

Though I do not present the results here, I also tested for impacts of security level assignment on the number of RVR's acquired over the course of the review period. However, given that there is very little variation in the number of RVRs (more than 99% of the sample has 3 or fewer RVRs) the estimate of the effect of placement in the next higher level on the number of violations may not be meaningful from a policy standpoint. Given that 92% of the distribution has one or fewer RVRs, the policy relevant question would appear to be to estimate the effect of placement in the next higher level on the likelihood of a RVR.[25]

To examine the treatment effect, I first show the density of the outcome variables across the cutoff. When illustrating the density, I use a bandwidth of 8 and a binwidth of 1.[26] For the RD estimation, I use the LLR estimator with a triangle kernel. Since RD estimates can be sensitive to the choice of bandwidth I present the sensitivity of the discontinuity estimates at varying bandwidths.

3.6.1 Level II/III Cutoff

Figure 5.19 shows the treatment effect of placement in Level III relative to Level II on the likelihood of any RVR. The left column of Figure 5.19 presents RD estimates of the proportion of inmates with any RVR and the right column plots the RD estimates obtained from varying bandwidths to test the sensitivity of the RD estimate with 95% confidence intervals. As can be seen from the figure, there is a clear visual break at the cutoff between Levels II/III. Based on a bandwidth of 8, the RD estimate is -0.081 with a standard error of 0.032 implying that inmates in Level III prisons had a significantly lower likelihood of a serious RVR. In other words, placement in Level III relative to placement in Level II (hereafter, placement in Level III) reduced the likelihood of being written up for an RVR by 8 percentage points. On the right side, I present the sensitivity of the RD estimate using varying bandwidths. As it turns out, the RD estimates are quite stable across the possible range of bandwidths. Though it is the maximum possible bandwidth at this score threshold, it is the most conservative estimate of placement in Level III relative to Level II.

Next, I estimate the effect of placement in Level III on the likelihood of different types of rule violation reports. As can be seen in Table 6.21 there are substantial differences between different types of RVRs ranging from Division A1/A2 RVRs for murder or battery causing serious injury to Division E or F violations like bartering or gambling. Figure 5.20 shows the RD estimates of the proportion of inmates with Division A1 or A2; B, C, or D; and E or F RVRs along with the sensitivity of the RD estimates with varying bandwidths. As

[25] Placement in Level III relative to Level II does have a significant negative effect on the number of RVRs, but the suppression effect is very small.

[26] The choice of bandwidth and binwidth rarely changes the graphical presentation of the data. So, for the sake of consistency, I use the same bandwidth and the binwidth on the graphs throughout the results.

can been seen from the graphs, the results in Figure 5.19 are most likely driven entirely by suppression of Division E or F RVRs. There is a clear visual break in Figure 5.20(e) at the cutoff between Level II/III. Based on a bandwidth of 8, the RD estimate is -0.070 with a standard error of 0.028 implying that inmates in Level III prisons had a significantly lower likelihood of a Division E or F RVR. On the right side, I present the sensitivity of the RD estimate using varying bandwidths. As with the result for any RVR, the result is stable across the range of possible bandwidths and bandwidth of 8 gives the most conservative of the estimates. As can be seen from the other graphs in Figure 5.20, no other type of RVR is significantly related to placement in Level III.

In Table 6.26, I give specific RD estimates and standard errors obtained by estimating the RD using various bandwidths. As can be seen in the table all the RD estimates for the likelihood of any RVR and the likelihood of a Divsion E or F RVR are significant across bandwidths. As a result, it is reasonable to conclude that the likelihood of being written up significantly lower in Level III as compared to Level II. There are several plausible explanations for why this might be the case. First, one of the principle differences between Levels II and III is that inmates in Level II are predominately housed in open dormitories as opposed to cells. It may be the case that the more open environment of the dormitory provides more opportunities to engage in low level rules violations. Furthermore, because of the openness of the dormitory setting there are likely fewer places (and opportunities) to effectively hide contraband. Second, despite the fact that there are fewer custody staff per inmate in Level II facilities, if custody staff in higher security level facilities are more concerned with violent misconduct they may be less likely to prioritize writing up inmates for lower level violations such as gambling or bartering. Officers at lower level facilities feel safer (Lerman, 2013), so they may be more likely to focus on lower level RVRs.

3.6.2 Level III/IV Cutoff

Next I estimate the effect of placement in Level IV facilities relative to Level III (Figure 5.21). The left column of Figure 5.21 presents RD estimates of the proportion of inmates with any RVR and the right column plots the RD estimates obtained from varying bandwidths to test the sensitivity of the RD estimate with 95% confidence intervals. As can be seen from the figure, unlike at the Level II/III cutoff there is no apparent visual break at the cutoff between Levels III/IV. On the right side, I present the sensitivity of the RD estimate using varying bandwidths. As the graph shows, though none of the estimates are significant the magnitudes of the RD estimates are sensitive to the choice of bandwidth (ranging from -3

to 5 percentage points). It is not too surprising that the estimates would vary across the range of the running variable at this cutoff value, because 24 preliminary score points is a very wide range of inmates. In this context a bandwidth of 24 could hardly be considered to fit the assumptions of the RD estimator. Focusing, instead, on bandwidths much closer to the threshold value the estimates, I do not detect an effect of placement in Level IV facilities relative to Level III.

3.7 Robustness Checks

3.7.1 Estimation Using Local Polynomial Regressions

To probe the robustness of the results at the Level II/III cutoff I estimate the regression discontinuity again to test whether the estimates are sensitive to the degree of polynomial. Local polynomial regressions allow for greater flexibility in the line fit. Figures 5.23 and 5.24 show the effect of placement in Level III relative to Level II as estimated using a local polynomial regression which includes up to a third order polynomial. The graphs in the right column of both figures show the discontinuity estimates for varying bandwidths all derived using local polynomial regressions up to a third order polynomial with the exception of bandwidth equal to 2 which could only accommodate up to a quadratic term. As can be seen from the figures, though the line fit allows for a more flexible modeling of the data, the results look very similar to those fit using a LLR. The coefficient estimates derived using the local polynomial regression are in Table 6.26. The results are very similar to those derived using the LLR and, if anything, suggest slightly greater magnitudes in the effect of placement in Level III on the incidence of serious RVRs.

3.7.2 Falsification Test: Checking for Discontinuities at an Arbitrary Cutoff Value

Another way to probe the results at the Level II/III cutoff is to check for discontinuities at other values of the running variable. Since my assertion is that the observed differences in the density of the outcome variable are attributable to the differences in facility security level assignment, it would be problematic for the results of this paper if there were discontinuities in the density of the outcome variables that were not associated with differences in treatment. Table 6.28 shows discontinuities estimates of using a number of arbitrary cutoffs not associated with an increased probability of the treatment (placement in Level III) on the likelihood of any RVR and of a Division E or F RVR. As with the main results in the paper, the coefficients in the table were estimated using LLR with a triangle kernel and a binwidth of 1. The table shows the sensitivity of the estimates to the number of bandwidths possible without crossing one of the actual score thresholds. As can be seen from the coefficient estimates in Table 6.28 there are no discontinuities in the outcome variables associated with arbitrary cutoff values. These results support the principle claim of this paper, that the discontinuities found at the cutoff values between facility security levels represent the treatment effect of placement in Level III.

3.8 Conclusion

To test whether placement in a higher facility security level effects the likelihood of RVRs, this study exploits features of CDCR's inmate classification system which assigns prison inmates to facility security levels based on cutoffs in risk scores derived using an "objective" classification instrument. Though the assignment variable is not fully deterministic, preliminary score is a very strong predictor of the increased probability of treatment allowing for fairly precise estimates of the treatment using the "fuzzy" regression discontinuity design. After carefully checking the validity of the RD design and executing the RD estimator, I find that placement in Level III relative to Level II significantly reduces the likelihood of RVRs. On average, inmates in Level III were 8.1 percentage points less likely to be written up. Estimating the results by type of RVR, results showed that the suppression of RVRs appears to be driven almost entirely by a lower likelihood of Division E or F violations.

One limitation of this study is that the sample only includes male inmates. If there are gender differences in the likelihood of misconduct, or perhaps more importantly, in correctional officers' perceptions of safety then the results could differ by gender. Perhaps future work could estimate the effect of facility security classification on the incidence of RVRs for female inmates.

An additional limitation of this paper is that I only observe RVRs which are an indicator of misconduct but since correctional officers have discretion about which rules violations they write up, I am not able to ascertain whether or not facility security level effects inmate behavior. As a result, it is most likely the case that rates of Division E or F rule violations are more or less constant between Levels II and III, but that officers are less likely to write inmates up for Division E or F violations in Level III. This notion is rendered all the more probable because officers reportedly feel significantly less safe at higher facility security levels

(Lerman, 2013). As Lerman (2013) notes, officers are much more likely to be assaulted or injured at work in Level III facilities relative to Level II facilities. If, indeed, the result shown in this paper is driven by officers exercising discretion in Level III facilities and not writing up inmates for Division E or F violations then it is not necessarily incongruous that we do not see a similar result at the Level III/IV cutoff, despite Level IV facilities being even more violent than Level III facilities. It would be the case that we would not observe a result at the Level III/IV cutoff if the de-prioritization of Division E or F violations happened after staff perceptions of safety crosses a certain threshold of feeling unsafe on average. In that case, we would observe the result at the Level II/III cutoff but not at the Level III/IV cutoff.

Despite the limitations, I would argue that even if facility security level does not exacerbate or suppress inmate behavior discovering a difference in reported misconduct between facility security levels is a compelling result.

3.9 Appendix: Inmate Classification Score Calculation

CDCR staff use Form 840 to calculate inmate classification scores on an annual basis. The preliminary classification score is calculated first using CDCR Form 839 (Figure 5.7) and is comprised of two sub-scores: the background factor score (Table 6.16) and the prior incarceration behavior score (Table 6.17). The background factor score is comprised of weighted values and can range from a minimum of 2 points to a maximum of 83 points. Prison term in years (up to a maximum of 50 points), age at first arrest, and age at reception are weighted most heavily. The background factor score is calculated once using CDCR Form 839. The prior incarceration behavior score is calculated at initial classification and again during every reclassification using CDCR Form 840 (Figure 5.8). The prior incarceration behavior score is comprised of the sum of two sub-scores: 1) history of serious disciplinary infractions and 2) behavior in the last 12 months. When inmates have had no serious disciplinary infractions during a review period[27] they are eligible for a score reduction of up to 4 points. If inmates have had a write up they are not eligible for a score reduction, instead the number of serious rule violation reports are multiplied by 4 points. There is no upper limit to the possible points that can be added to an inmate's score during a review. Whether or not an inmate has had a disciplinary infraction in the last year, points are added to the prior incarceration behavior score for specific types of infractions in an inmate's past, the number of infractions are multiplied by between 4 and 16 points depending on the type of infraction. The sum of

[27] Although classifications are conducted on an annual basis, they usually cover two six month long review periods.

the background factor score and prior incarceration behavior score comprise the preliminary score.

For most inmates, the preliminary score is the final classification score. However, some inmates are eligible for mandatory minimum point allocations (Table 6.18). The final classification score is either the preliminary score or the mandatory minimum point allocation, whichever is greater.

4 Conclusion

In this dissertation I estimate the effects of two correctional policies, visitation and facility security classification, on prison misconduct. In the first paper, I use distance between an inmate's place of incarceration and home community as an instrument for whether or not an inmate receives a visit in prison in order to identify the relationship between prison visits and self-reported rates of misconduct. I demonstrate the strong relationship between distance from home and whether an inmate receives a visit and show that, assuming a common effect of visitation across inmates, the estimates suggest a negative relationship between visitation and several types of misconduct including possession of a weapon, possession of stolen property, verbal assault and physical assault on another inmate, and being out of place as well as reductions in total number of violations. The estimates in the paper suggest that younger inmates, those who have served more than a year in prison, those with no prior incarcerations, and those closest to release are most strongly influenced by visitation.

The main contribution of this paper is that it is the first to address endogeneity in the estimation of the effect of visitation on prison misconduct. Although this paper makes a concerted effort to rigorously estimate the relationship between visitation and prison misconduct, the data available for the paper is somewhat limiting. Ideally, there will be further research that accounts for the endogeneity in visitation but also allows for a richer description of visitation as a treatment.

The second paper in the dissertation estimates the effect of facility security classification on the incidence of rules violation reports in California prisons. The study uses features of the CDCR's inmate classification system which assigns prison inmates to facility security levels based on cutoffs in risk scores derived using an "objective" classification instrument. The preliminary classification score is a very strong predictor of the increased probability of treatment in the next higher of two adjacent security levels.

In the paper, I am able to derive fairly precise estimates of the treatment using the "fuzzy" regression discontinuity design. After carefully checking the validity of the RD design and executing the RD estimator, I find that placement in Level III relative to Level II significantly reduces the likelihood of RVRs. On average, inmates in Level III were 8.1 percentage points less likely to be written up. Estimating the results by type of RVR, results showed that the suppression of RVRs appears to be driven almost entirely by a lower likelihood of Division E or F violations.

One limitation of this paper is that I only observe RVRs which are an indicator of misconduct but since correctional officers have discretion about which rules violations they write up, I am not able to ascertain whether or not facility security level effects inmate behavior. As a result, it is most likely the case that rates of Division E or F rule violations are more or less constant between Levels II and III, but that officers are less likely to write inmates up for Division E or F violations in Level III. This result is likely driven by officers exercising discretion in Level III facilities relative to Level II inmates and not writing up inmates for Division E or F violations at the higher level.

Though it might seem strange that there is a result at the Level II/III cutoff, but not the Level III/IV cutoff, it is likely because despite Level IV facilities being even more violent than Level III facilities, if the de-prioritization of Division E or F violations happened after staff perceptions of safety cross a certain threshold of feeling unsafe on average. In this case, we would observe the pattern observed in this paper: a result at the Level II/III cutoff but not at the Level III/IV cutoff. I would argue, on the whole, that even if facility security level does not exacerbate or suppress inmate behavior discovering a difference in reported misconduct between facility security levels is a compelling result.

Indeed, I would argue that the results estimated in this dissertation contribute to the extant knowledge about the effects of correctional policies on inmate outcomes. In doing so, the results estimated in this dissertation contribute to the understanding how correctional policies shape in-prison behavior of both inmates and custody staff. Because the effects of incarceration most likely reverberate to those who interact with inmates during their incarceration and persist after an inmate is released, understanding the effects of correctional policies on *in* prison behavior contributes to our understanding of how incarceration affects individuals, their families and their communities post-release. Ultimately, I believe the results of this dissertation do contribute, in some part, to a better understanding of what it means to use incarceration so extensively in the United States.

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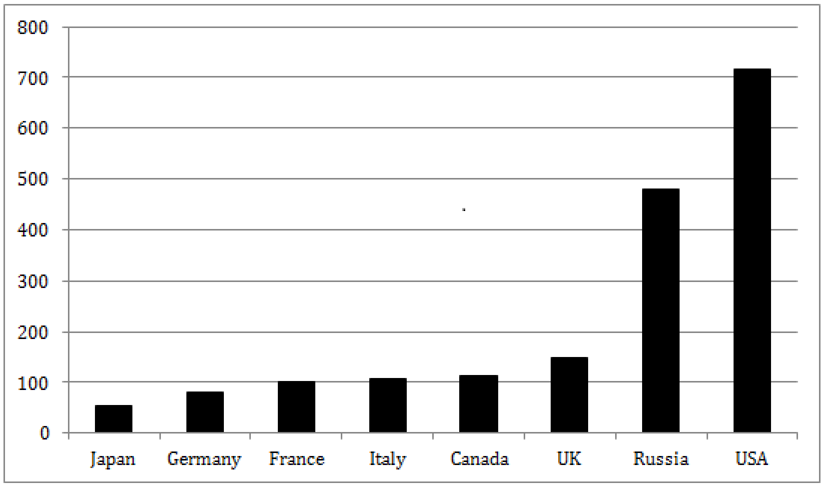
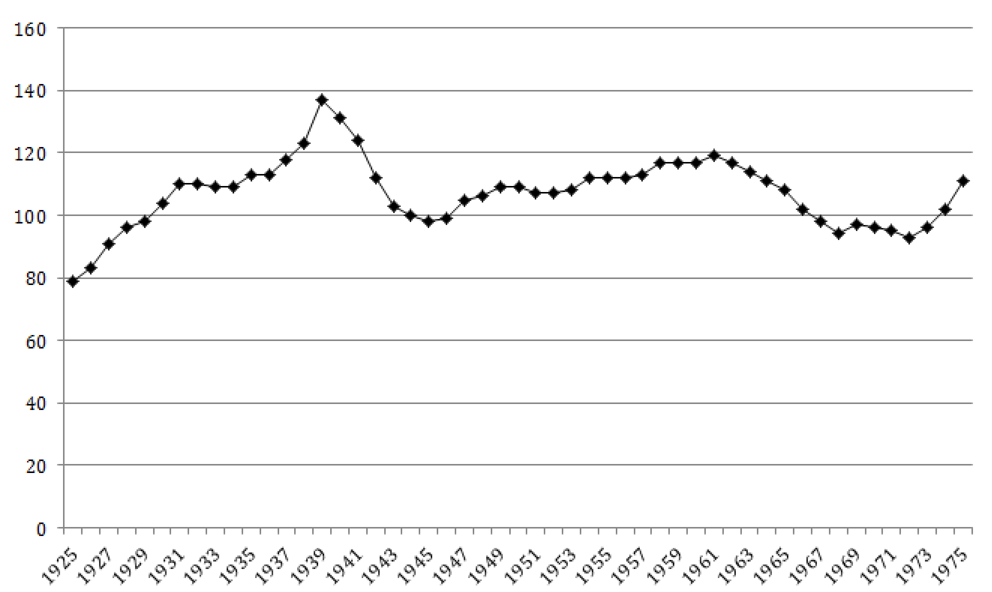
5 Figures

Figure 5.1: Incarceration Rates per 100,000 Residents for G8 Nations



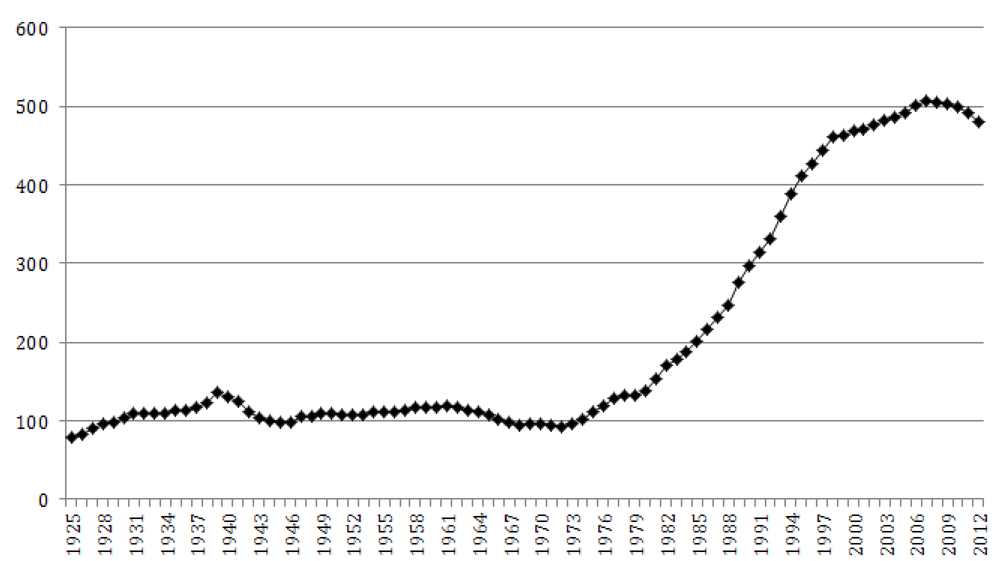
Note: Authors compilation based on data from the World Prison Brief 2013.

Figure 5.2: United States Prison Incarceration Rate per 100,000 U.S. Residents, 1925-1975



Note: Authors compilation based on data from the Bureau of Justice Statistics.

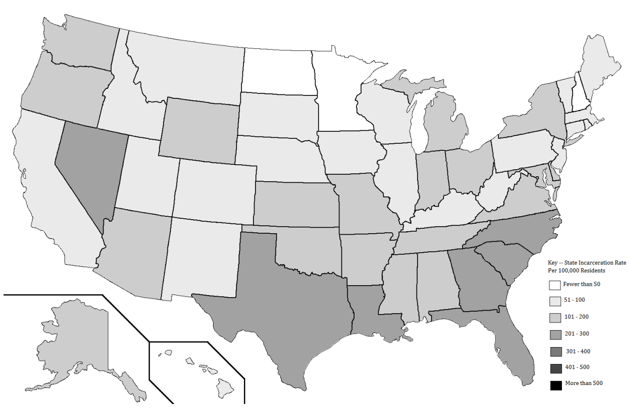
Figure 5.3: United States Prison Incarceration Rate per 100,000 U.S. Residents, 1925-2012



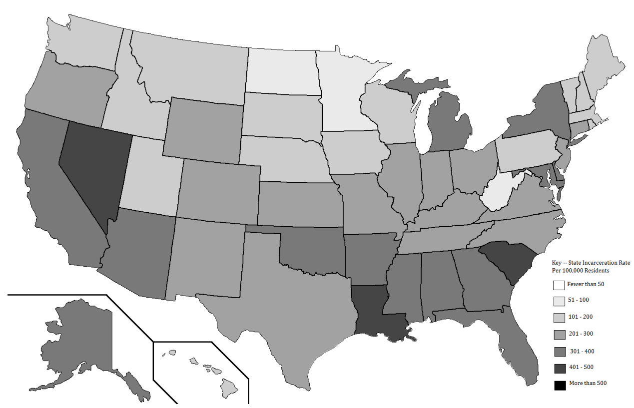
Note: Authors compilation based on data from the Bureau of Justice Statistics.

Figure 5.4: Prison Incarceration Rates Per 100,000 Residents By State Over Time, 1980-2010

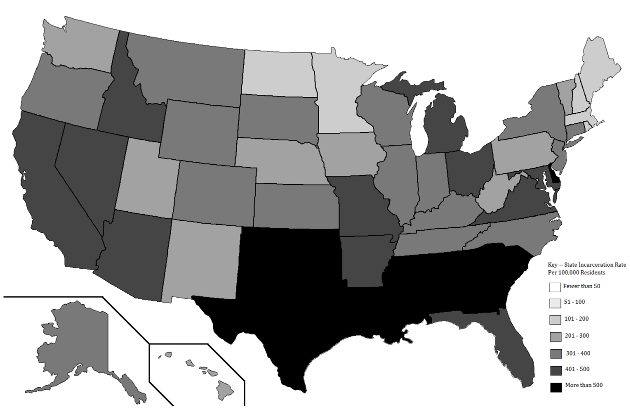
(a) State Incarceration Rates 1980



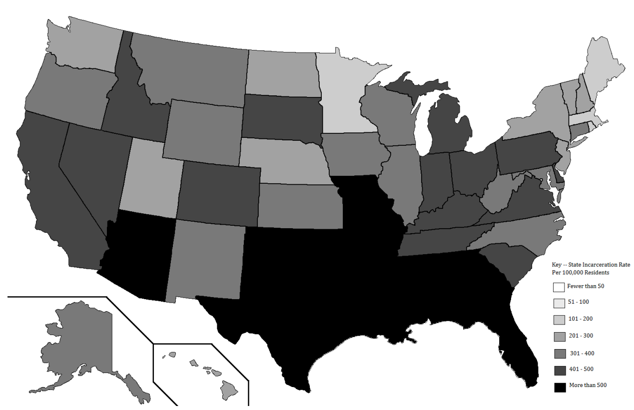
(b) State Incarceration Rates 1990



(c) State Incarceration Rates 2000

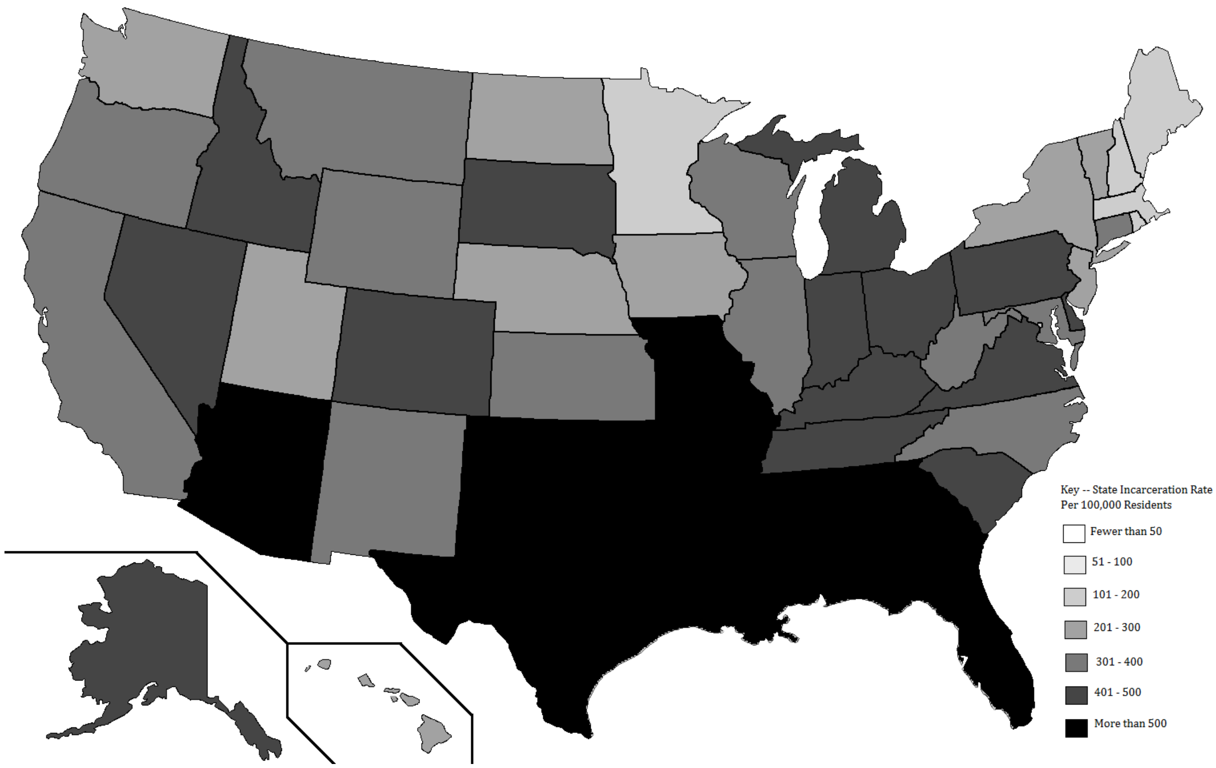


(d) State Incarceration Rates 2010



Note: All maps are authors compilation using Bureau of Justice Statistics data on state incarceration rates. The scale is the same for all graphs. The darker the shade of grey on the map the higher the incarceration rate.

Figure 5.5: Prison Incarceration Rates per 100,000 Residents by State, 2011



Note: Authors compilation based on data from the Bureau of Justice Statistics. State rates are given per 100,000 residents in the state. The legend in the lower right hand corner shows the color distribution, darker grey indicates a higher incarceration rate.

Figure 5.6: Proportion of Inmates Visited By Distance from Home

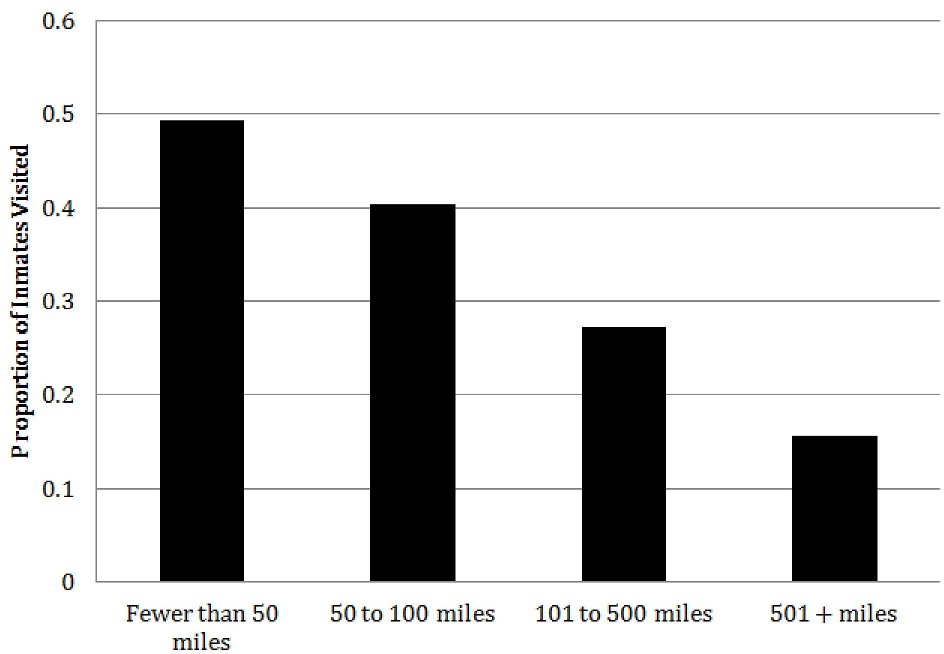
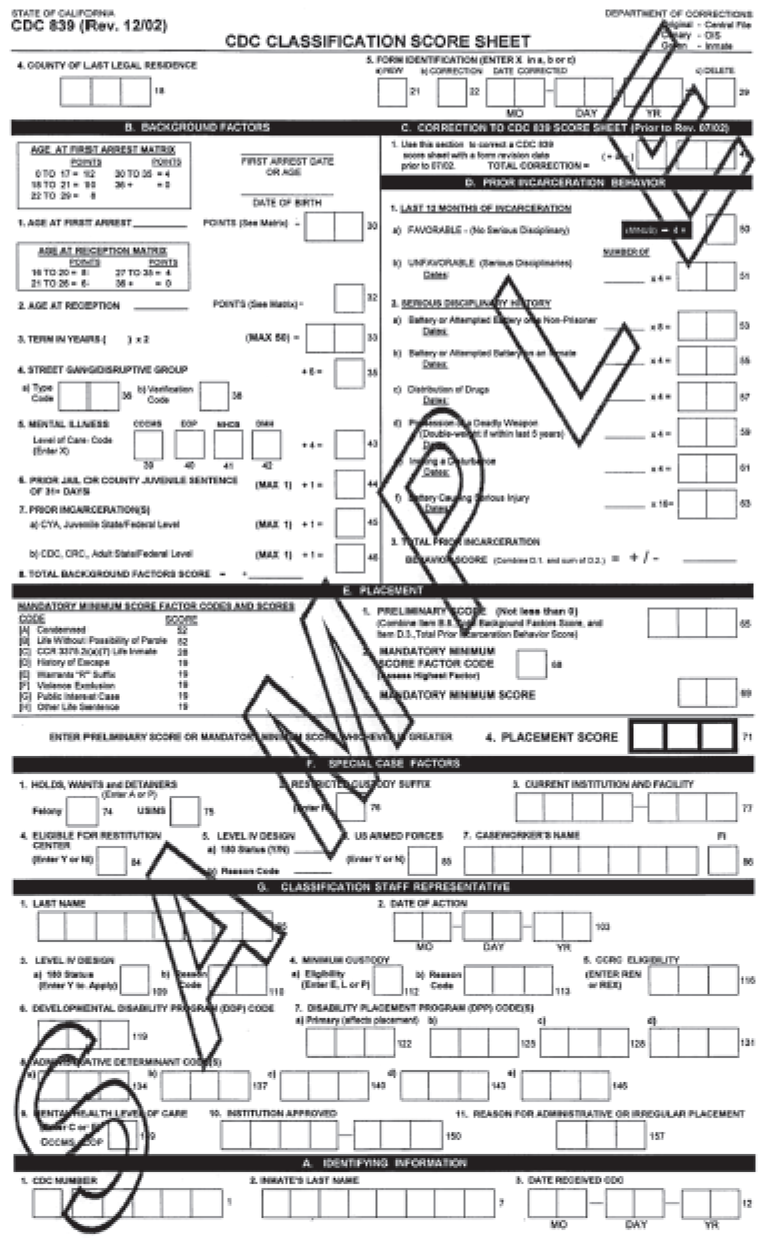


Figure 5.7: Sample Inmate Classification Form: CDCR Form 839


STATE OF CALIFORNIA
CDC 839 (Rev. 12/02)
DEPARTMENT OF CORRECTIONS
Original - Central File
Canary - OIS
Green - Inmate

CDC CLASSIFICATION SCORE SHEET

4. COUNTY OF LAST LEGAL RESIDENCE
5. FORM IDENTIFICATION (ENTER X in a, b or c)
a) NEW b) CORRECTION DATE CORRECTED c) DELETE
MO DAY YR

B. BACKGROUND FACTORS

AGE AT FIRST ARREST MATRIX
POINTS POINTS
0 TO 17 = 12 30 TO 35 = 4
18 TO 21 = 10 36 + = 0
22 TO 29 = 8

FIRST ARREST DATE OR AGE
DATE OF BIRTH
1. AGE AT FIRST ARREST POINTS (See Matrix) =

AGE AT RECEPTION MATRIX
POINTS POINTS
16 TO 20 = 8 27 TO 35 = 4
21 TO 26 = 6 36 + = 0

2. AGE AT RECEPTION POINTS (See Matrix) =
3. TERM IN YEARS ( ) x 2 (MAX 50) =
4. STREET GANG/DISRUPTIVE GROUP +6 =
a) Type Code b) Verification Code
5. MENTAL ILLNESS CCCMS EOP MHCB DMH
Level of Care Code (Enter X) +4 =
6. PRIOR JAIL OR COUNTY JUVENILE SENTENCE OF 31+ DAYS (MAX 1) +1 =
7. PRIOR INCARCERATION(S)
a) CYA, Juvenile State/Federal Level (MAX 1) +1 =
b) CDC, CRC, Adult State/Federal Level (MAX 1) +1 =
8. TOTAL BACKGROUND FACTORS SCORE = +

C. CORRECTION TO CDC 839 SCORE SHEET (Prior to Rev. 07/02)
1. Use this section to correct a CDC 839 score sheet with a form revision date prior to 07/02. TOTAL CORRECTION =

D. PRIOR INCARCERATION BEHAVIOR
1. LAST 12 MONTHS OF INCARCERATION
a) FAVORABLE - (No Serious Disciplinary) (minus) - 4 =
b) UNFAVORABLE (Serious Disciplinaries) NUMBER OF Dates: x 4 =
2. SERIOUS DISCIPLINARY HISTORY
a) Battery or Attempted Battery on a Non-Prisoner Dates: x 8 =
b) Battery or Attempted Battery on an Inmate Dates: x 4 =
c) Distribution of Drugs Dates: x 4 =
d) Possession of a Deadly Weapon (Double-weight if within last 5 years) Dates: x 4 =
e) Inciting a Disturbance Dates: x 4 =
f) Battery Causing Serious Injury Dates: x 16 =
3. TOTAL PRIOR INCARCERATION BEHAVIOR SCORE (Combine D.1. and sum of D.2.) = + / -

E. PLACEMENT
MANDATORY MINIMUM SCORE FACTOR CODES AND SCORES
CODE SCORE
[A] Condemned 52
[B] Life Without Possibility of Parole 52
[C] CCR 3375.2(a)(7) Life Inmate 28
[D] History of Escape 19
[E] Warrants "R" Suffix 19
[F] Violence Exclusion 19
[G] Public Interest Case 19
[H] Other Life Sentence 19
1. PRELIMINARY SCORE (Not less than 0) (Combine item B.8. Total Background Factors Score, and item D.3., Total Prior Incarceration Behavior Score)
2. MANDATORY MINIMUM SCORE FACTOR CODE (Assess Highest Factor)
3. MANDATORY MINIMUM SCORE
ENTER PRELIMINARY SCORE OR MANDATORY MINIMUM SCORE, WHICHEVER IS GREATER 4. PLACEMENT SCORE

F. SPECIAL CASE FACTORS
1. HOLDS, WANTS and DETAINERS (Enter A or P) Felony USINS
2. RESTRICTED CUSTODY SUFFIX (Enter R)
3. CURRENT INSTITUTION AND FACILITY
4. ELIGIBLE FOR RESTITUTION CENTER (Enter Y or N)
5. LEVEL IV DESIGN a) 180 Status (Y/N) b) Reason Code
6. US ARMED FORCES (Enter Y or N)
7. CASEWORKER'S NAME FI

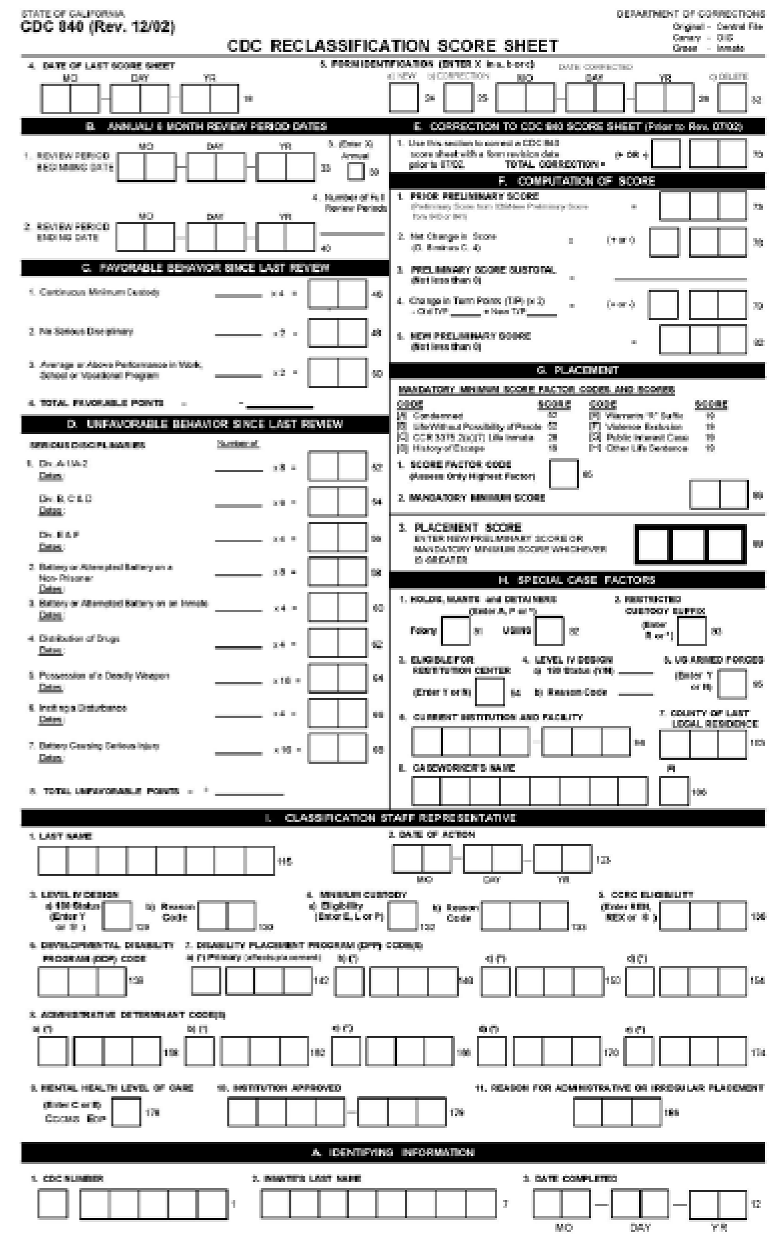
G. CLASSIFICATION STAFF REPRESENTATIVE
1. LAST NAME
2. DATE OF ACTION MO DAY YR
3. LEVEL IV DESIGN a) 180 Status (Enter Y to Apply) b) Reason Code
4. MINIMUM CUSTODY a) Eligibility (Enter E, L or P) b) Reason Code
5. CCRC ELIGIBILITY (ENTER REN or REX)
6. DEVELOPMENTAL DISABILITY PROGRAM (DDP) CODE
7. DISABILITY PLACEMENT PROGRAM (DPP) CODE(S) a) Primary (affects placement) b) c) d)
8. ADMINISTRATIVE DETERMINANT CODE(S) a) b) c) d) e)
9. MENTAL HEALTH LEVEL OF CARE (Enter C or E) CCCMS EOP
10. INSTITUTION APPROVED
11. REASON FOR ADMINISTRATIVE OR IRREGULAR PLACEMENT

A. IDENTIFYING INFORMATION
1. CDC NUMBER
2. INMATE'S LAST NAME
3. DATE RECEIVED CDC MO DAY YR

SAMPLE

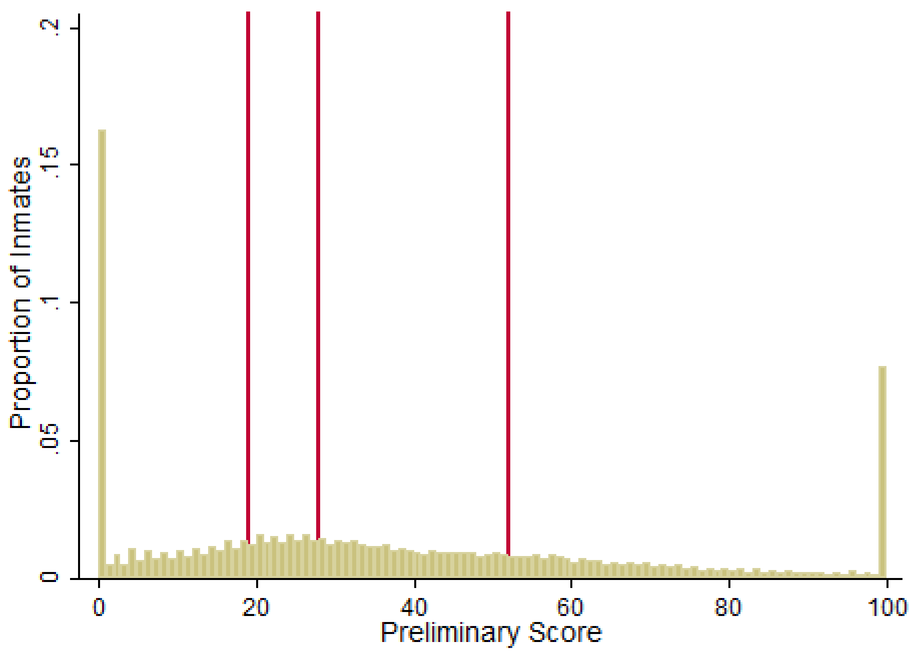
Note: This is a sample of CDCR Form 839. As can be seen from the form, CDCR staff fill in boxes with pre-assigned weights based on inmate characteristics. This is referred to as an "objective" classification instrument because there is no staff discretion. The score is based on predetermined characteristics and the weights are pre-assigned. Since it may be challenging to see the details of Form 839 from the figure Tables 6.16 and 6.17 explain the characteristics and weights in more detail.

Figure 5.8: Sample Inmate Classification Form: CDCR Form 840



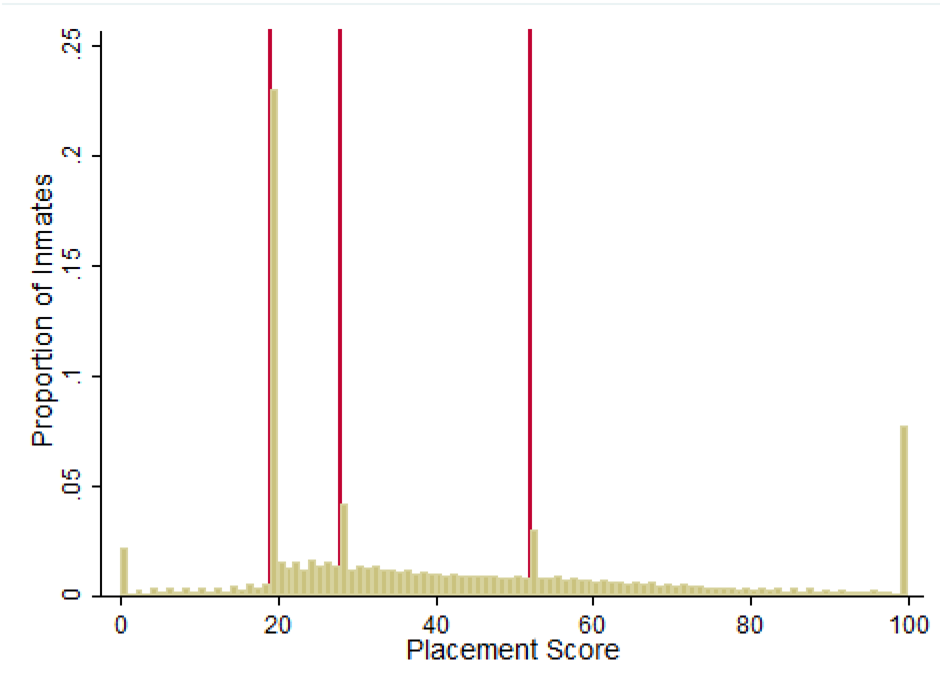
Note: This is a sample of CDCR Form 840. As can be seen from the form, CDCR staff fill in boxes with pre-assigned weights. This is referred to as an "objective" classification instrument because there is no staff discretion; the score is based on predetermined characteristics and the weights are pre-assigned. Classification staff use the inmate's existing preliminary score (initially calculated using CDCR Form 839) and update based on the documented behavior during the last review period. An inmate's preliminary score can either go up or down during re-classification.

Figure 5.9: Distribution of Inmates by Preliminary Classification Score



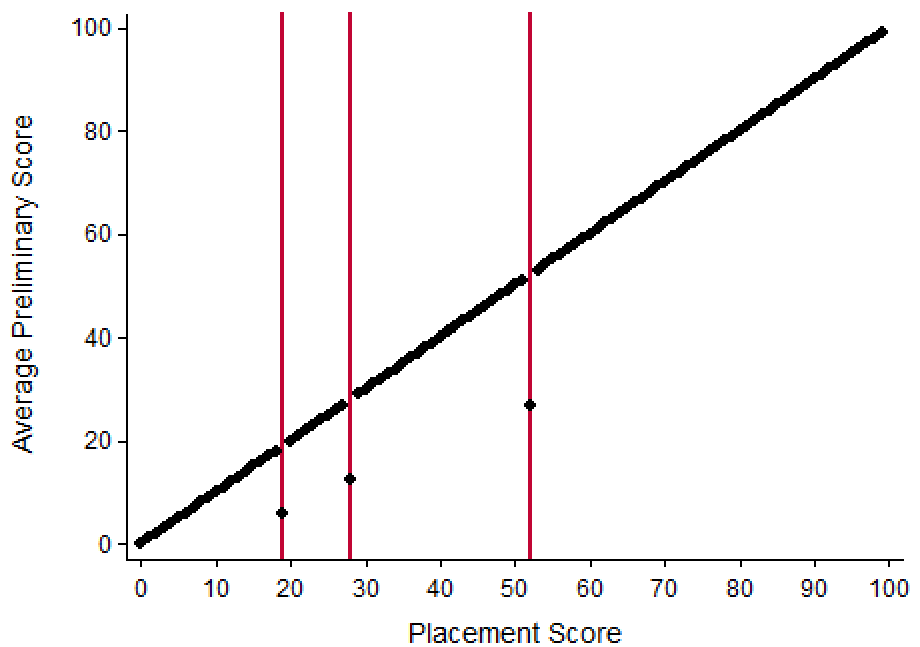
Note: This graph shows the preliminary scores for all male, non-death row felons incarcerated in California prisons for at least one-year continuously starting January 1, 2008. These are inmates housed in Levels I-IV; it excludes inmates in CDCR custody but housed out of state, reception center inmates, and inmates who were not classified. Preliminary scores are assigned to inmates using the CDCR Form 840 described in Appendix 3.9.

Figure 5.10: Distribution of Inmates by Final Classification Score



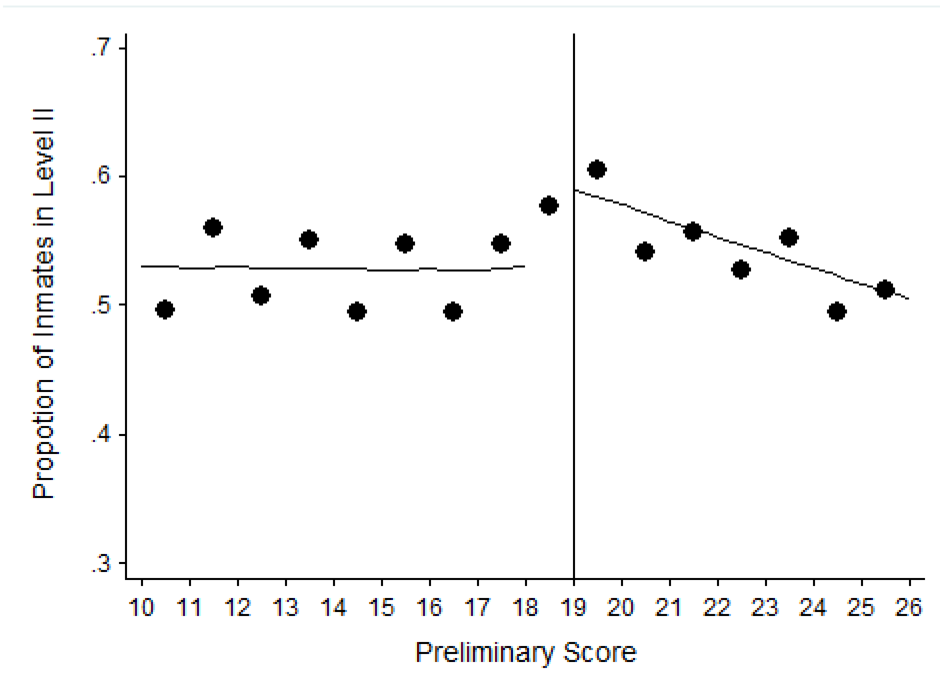
Note: This graph shows the placement scores for all male, non-death row felons incarcerated in California prisons for at least one-year continuously starting January 1, 2008. These are inmates housed in Levels I-IV; it excludes inmates in CDCR custody but housed out of state, reception center inmates, and inmates who were not classified. The placement score is the greater of either the preliminary score or an applicable mandatory minimum point allocation. Mandatory minimum point allocations are triggered by the characteristics listed in Table 6.18.

Figure 5.11: Average Preliminary Score By Final Classification Score



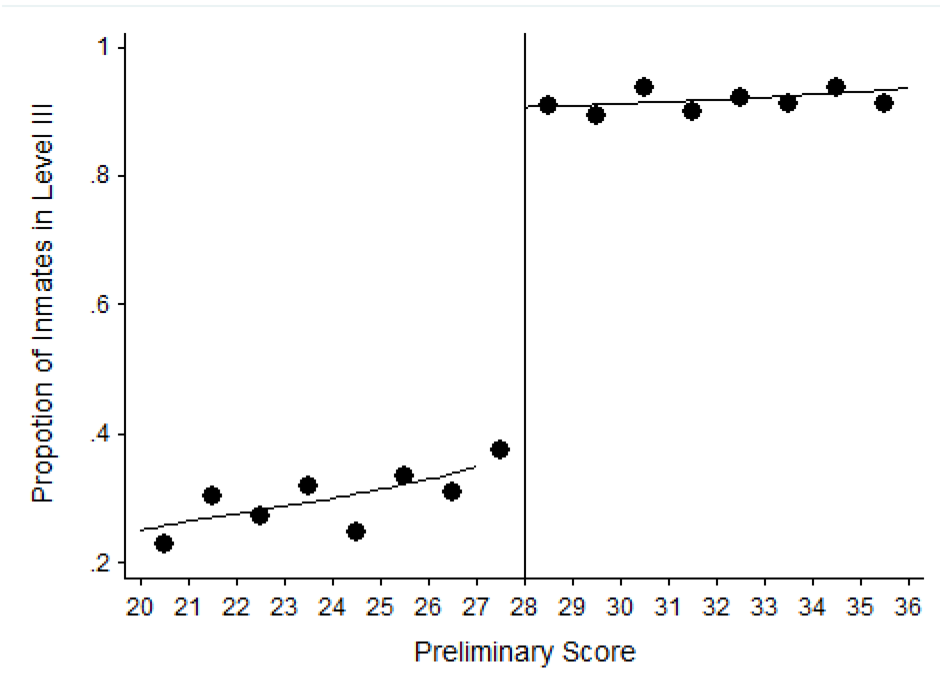
Note: This graph shows the average preliminary score for each value of the placement score for all male, non-death row felons incarcerated in California prisons for at least one-year continuously starting January 1, 2008 and whose placement scores are between 0 and 99 (92% of the sample). These are inmates housed in Levels I-IV; it excludes inmates in CDCR custody but housed out of state, reception center inmates, and inmates who were not classified. The placement score is the greater of either the preliminary score or an applicable mandatory minimum point allocation.

Figure 5.12: First Stage Relationship Between Preliminary Score and Placement in Level I/II Facility



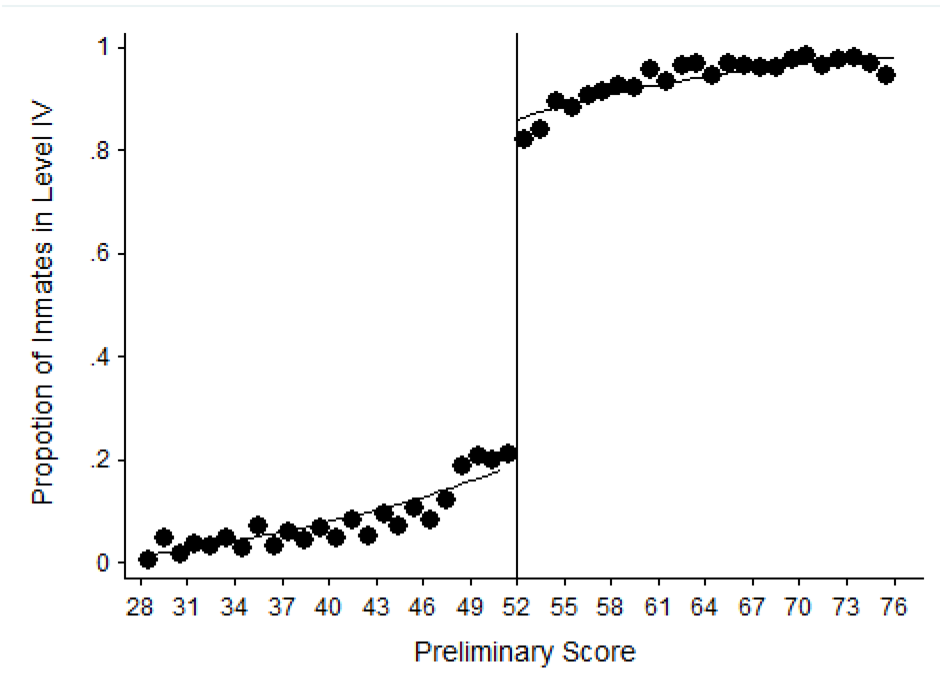
Note: The density of placement in Level II relative to Level I has been plotted using a bandwidth of 8 and a binwidth of 1. The line fit was conducted using LLR with a triangle kernel. The sample was restricted to all inmates housed in Levels I-IV with preliminary scores between 0 and 27 points. As can be seen from the figure there does not appear to be a discontinuous break in the density of the treatment variable, assignment in Level II, as the assignment variable, preliminary score, crosses the cutoff value at 19 points. As a consequence, preliminary score is a weak instrument for assignment to the treatment and should not be used to estimate the fuzzy regression discontinuity at the threshold between Levels I/II.

Figure 5.13: First Stage Relationship Between Preliminary Score and Placement in Level II/III Facility



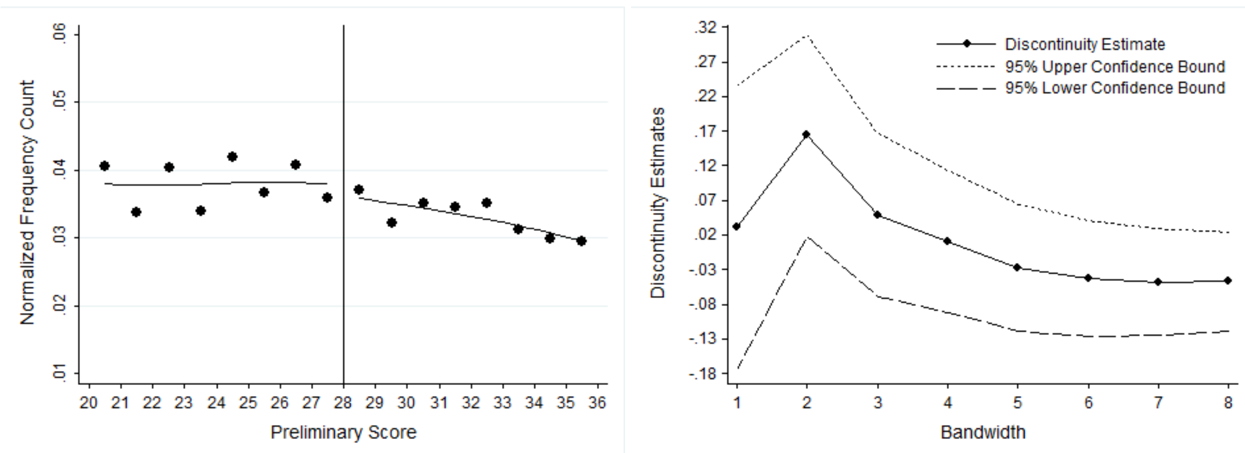
Note: The density of placement in Level III relative to Level II has been plotted using a bandwidth of 8 and a binwidth of 1. The line fit was conducted using LLR with a triangle kernel. The sample was restricted to all inmates housed in Levels I-IV with preliminary scores between 19 and 51 points. As can be seen from the figure there is a substantially higher probability of placement in Level III as the assignment variable, preliminary score, crosses the cutoff value at 28 points.

Figure 5.14: First Stage Relationship Between Preliminary Score and Placement in Level III/IV Facility



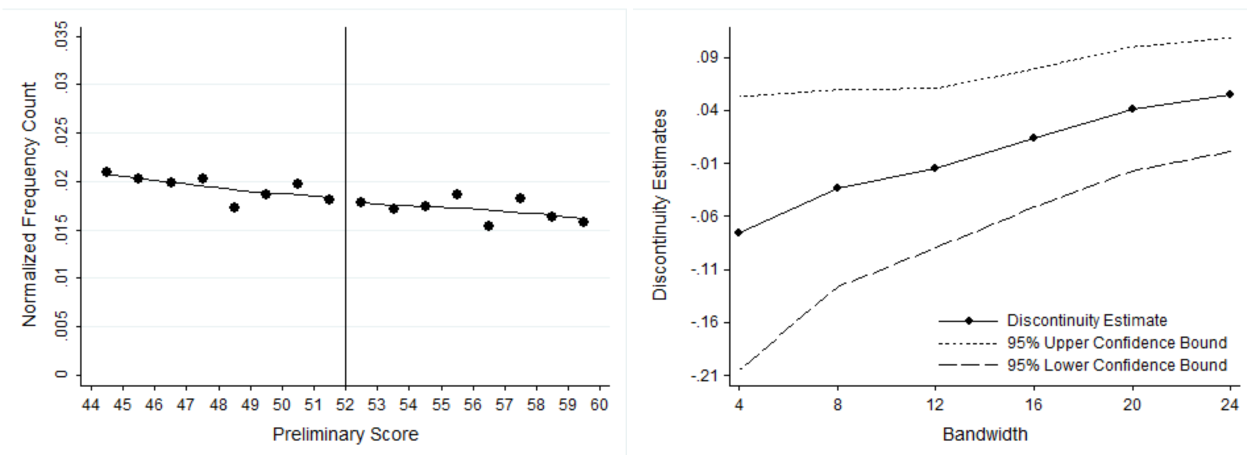
Note: The density of placement in Level IV relative to Level III has been plotted using a bandwidth of 24 and a binwidth of 1. The line fit was conducted using LLR with a triangle kernel. The sample was restricted to all inmates housed in Levels I-IV with preliminary scores between 28 points and 75 points. As can be seen from the figure there is a substantially higher probability of placement in Level IV as the assignment variable, preliminary score, crosses the cutoff value at 52 points.

Figure 5.15: Density Test for Manipulation in the Preliminary Score at the Level II/III Cutoff



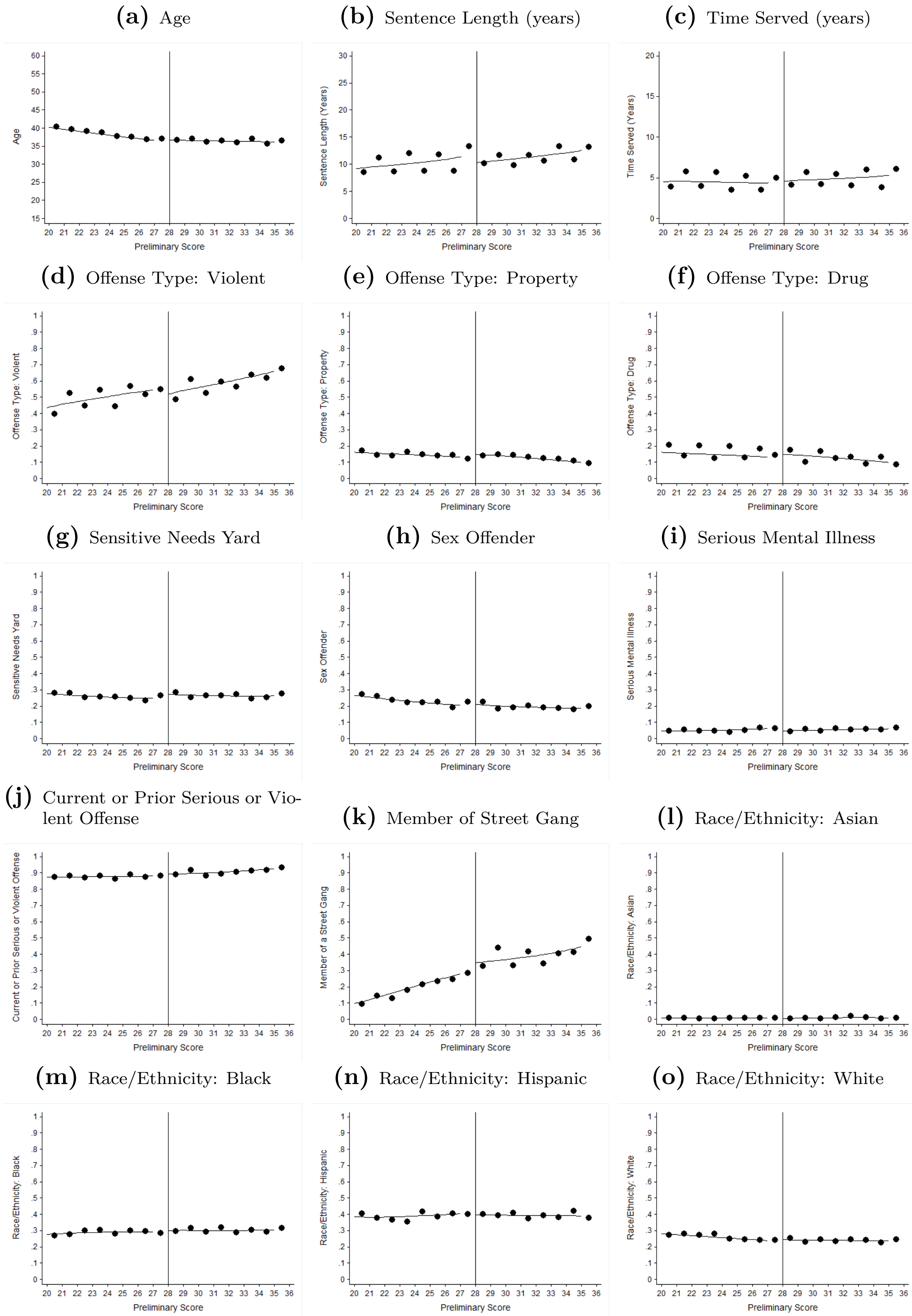
Note: For the graph on the left, the density has been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with the LLR using triangle kernel. The graph on the right shows discontinuity estimates for varying bandwidths all derived using a binwidth of 1. Only the discontinuity estimate using a bandwidth of 2 is statistically significant.

Figure 5.16: Density Test for Manipulation in the Preliminary Score at the Level III/IV Cutoff



Note: For the graph on the left, the density has been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with the LLR using triangle kernel. The graph on the right shows discontinuity estimates for varying bandwidths all derived using a binwidth of 1. Only the discontinuity estimate using a bandwidth of 24 is statistically significant.

Figure 5.17: Density of the Baseline Covariates at the Level II/III Cutoff

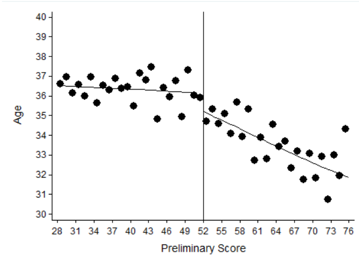


(a) Age **(b)** Sentence Length (years) **(c)** Time Served (years) **(d)** Offense Type: Violent **(e)** Offense Type: Property **(f)** Offense Type: Drug **(g)** Sensitive Needs Yard **(h)** Sex Offender **(i)** Serious Mental Illness **(j)** Current or Prior Serious or Violent Offense **(k)** Member of Street Gang **(l)** Race/Ethnicity: Asian **(m)** Race/Ethnicity: Black **(n)** Race/Ethnicity: Hispanic **(o)** Race/Ethnicity: White

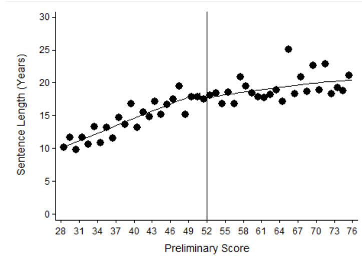
Note: All graphs have been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with the LLR using triangle kernel.

Figure 5.18: Density of the Baseline Covariates at the Level III/IV Cutoff

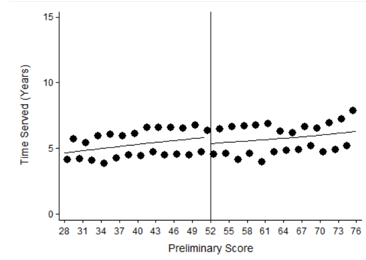
(a) Age



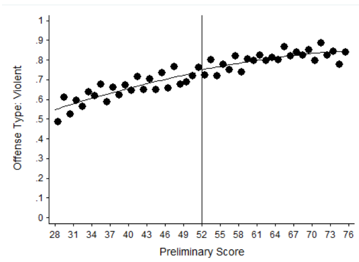
(b) Sentence Length (years)



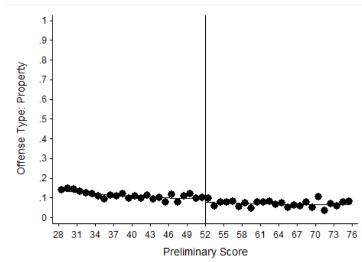
(c) Time Served (years)



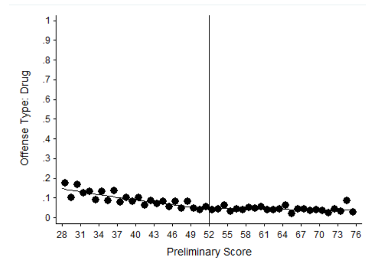
(d) Offense Type: Violent



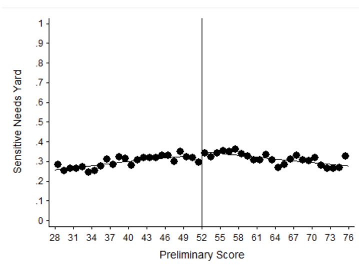
(e) Offense Type: Property



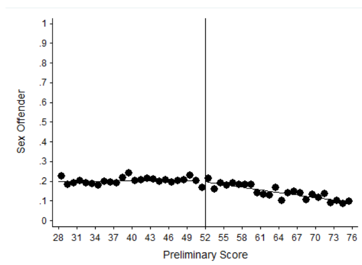
(f) Offense Type: Drug



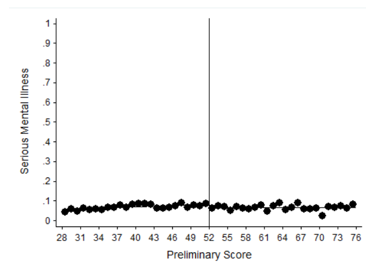
(g) Sensitive Needs Yard



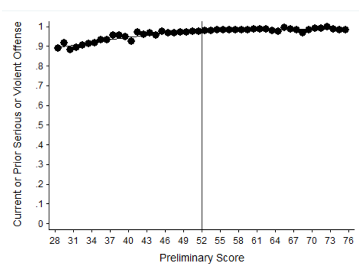
(h) Sex Offender



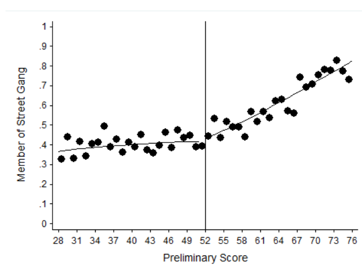
(i) Serious Mental Illness



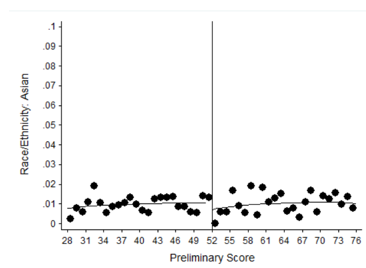
(j) Current or Prior Serious or Violent Offense



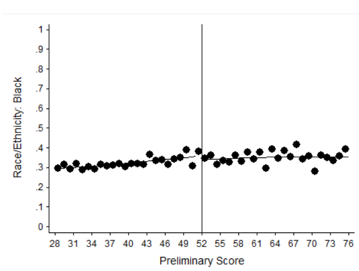
(k) Member of Street Gang



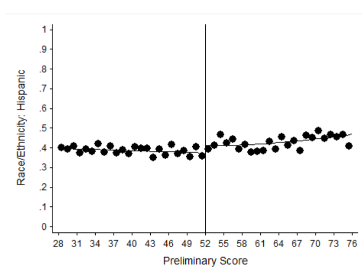
(l) Race/Ethnicity: Asian



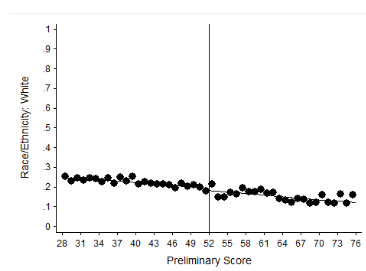
(m) Race/Ethnicity: Black



(n) Race/Ethnicity: Hispanic



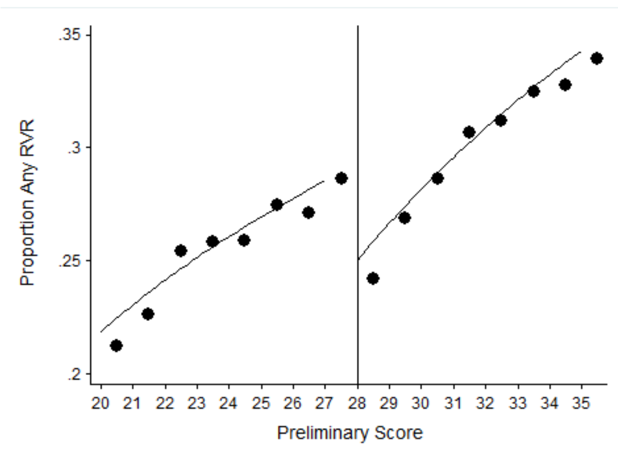
(o) Race/Ethnicity: White



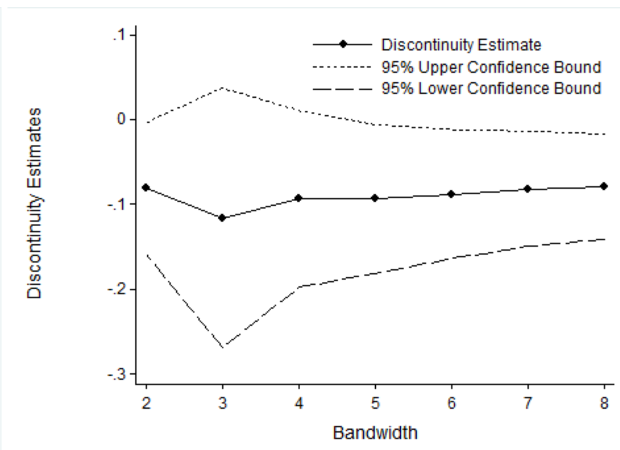
Note: All graphs have been plotted with the following: bandwidth of 24, binwidth of 1. The line fit has been conducted with the LLR using triangle kernel.

Figure 5.19: The Effect of Facility Security Level on the Likelihood of a Rules Violation Report (RVR) at the Level II/III Cutoff

(a) Effect of Level II/III on Proportion of Inmates with Any RVR



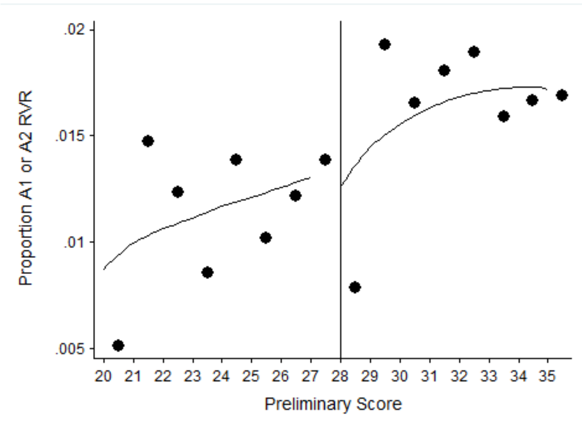
(b) Sensitivity of RD Estimates for Any RVR



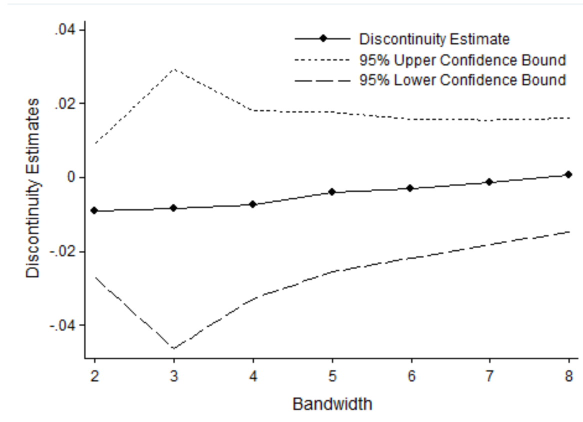
Note: For the graph on the left, the density has been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with the LLR using triangle kernel. The graph on the right shows discontinuity estimates for varying bandwidths all derived using the LLR with a triangle kernel and a binwidth of 1.

Figure 5.20: The Effect of Facility Security Level on the Likelihood of Specific Types of Rules Violation Reports (RVRs) at the Level II/III Cutoff

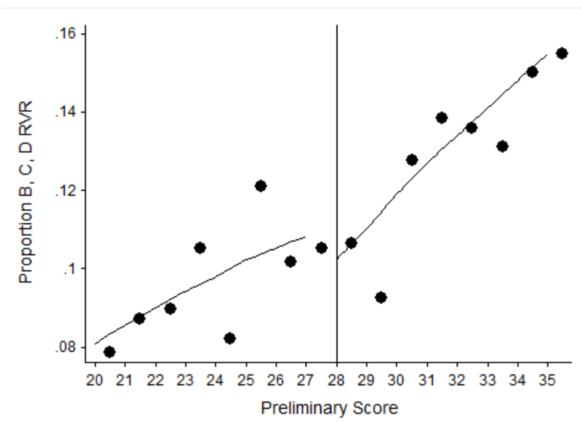
(a) Effect of Level II/III on Proportion of Inmates with Division A1 or A2 RVRs



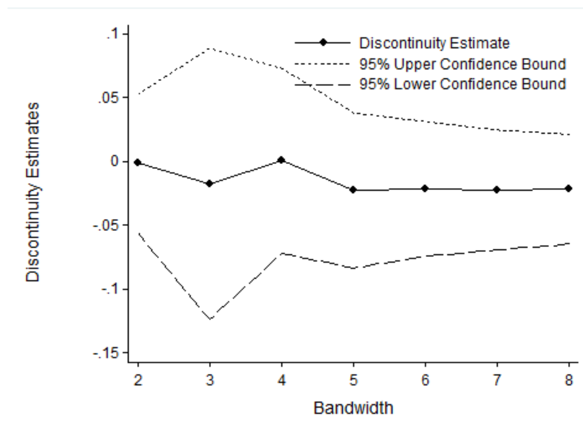
(b) Sensitivity of RD Estimates for A1 or A2 RVRs



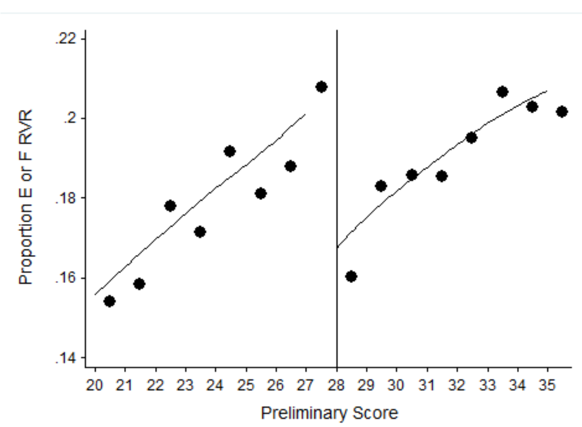
(c) Effect of Level II/III on Proportion of Inmates with Division B, C, or D RVRs



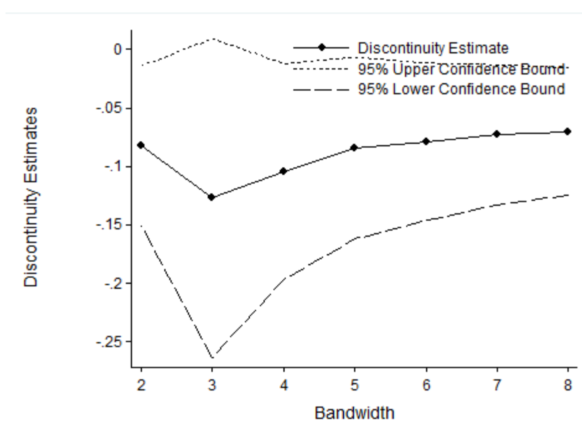
(d) Sensitivity of RD Estimates for B, C, or D RVRs



(e) Effect of Level II/III on Proportion of Inmates with Division E or F RVRs



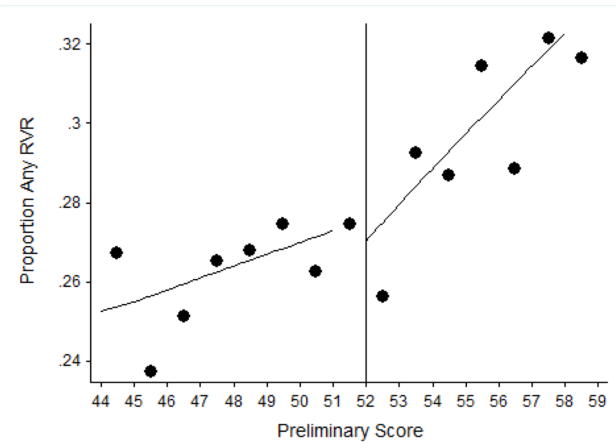
(f) Sensitivity of RD Estimates for E or F RVRs



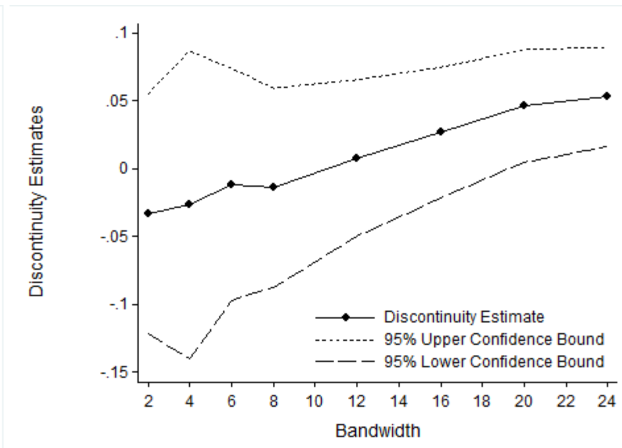
Note: For the graph on the left, the density has been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with the LLR using triangle kernel. The graph on the right shows discontinuity estimates for varying bandwidths all derived using the LLR with a triangle kernel and a binwidth of 1.

Figure 5.21: The Effect of Facility Security Level on the Likelihood of a Rules Violation Report (RVR) at the Level III/IV Cutoff

(a) Effect of Level III/IV on the Proportion of Inmates with a RVR



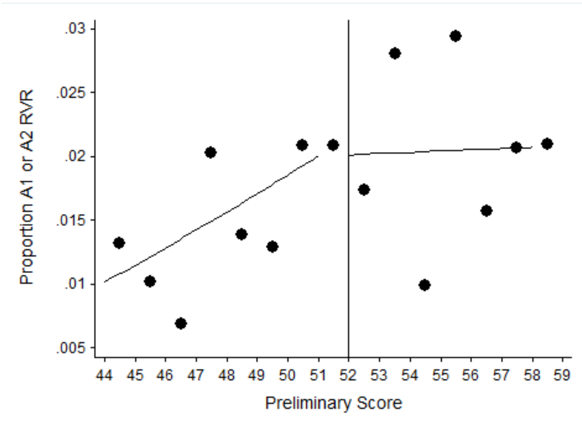
(b) Sensitivity of RD Estimates for Any RVR



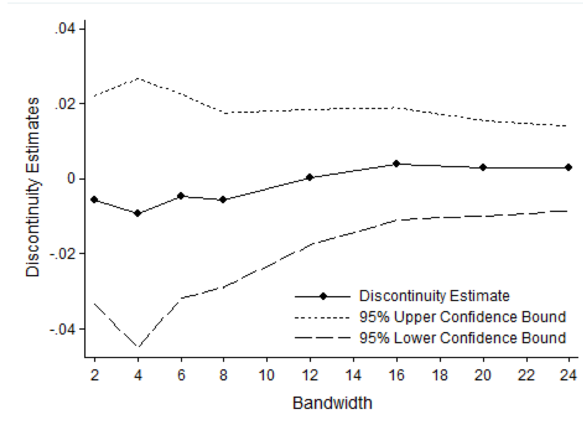
Note: For the graph on the left, the density has been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with the LLR using triangle kernel. The graph on the right shows discontinuity estimates for varying bandwidths all derived using the LLR with a triangle kernel and a binwidth of 1.

Figure 5.22: The Effect of Facility Security Level on the Likelihood of Specific Types of Rules Violation Reports (RVRs) at the Level III/IV Cutoff

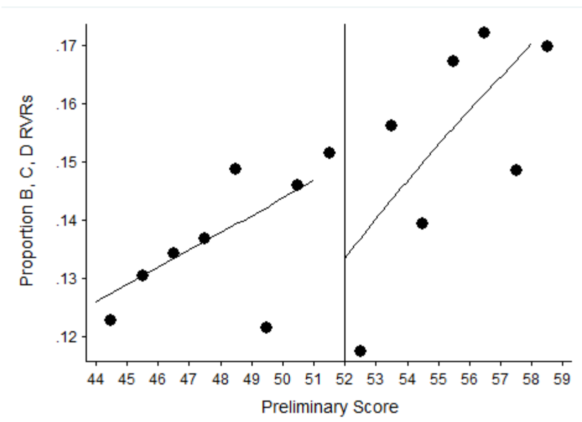
(a) Effect of Level III/IV on Proportion of Inmates with Division A1 or A2 RVRs



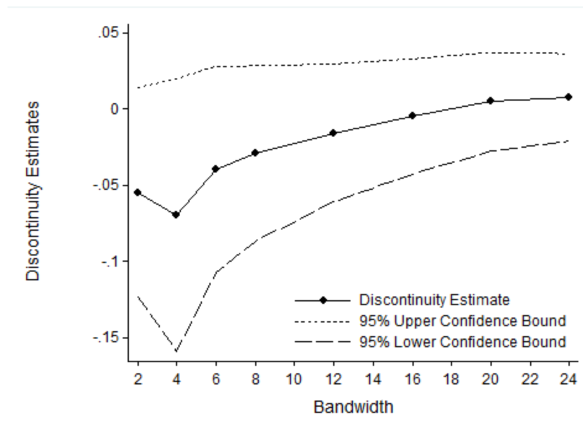
(b) Sensitivity of RD Estimates for A1 or A2 RVRs



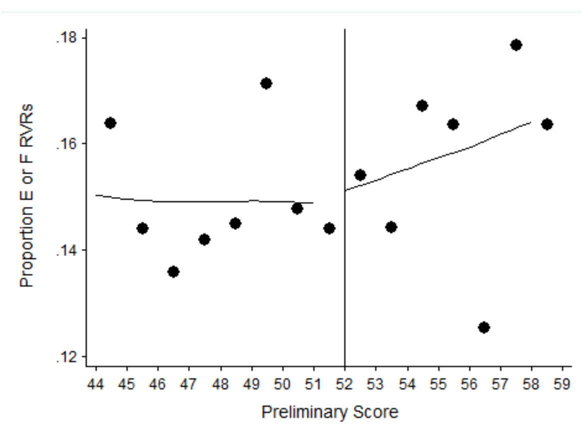
(c) Effect of Level III/IV on Proportion of Inmates with Division B, C, or D RVRs



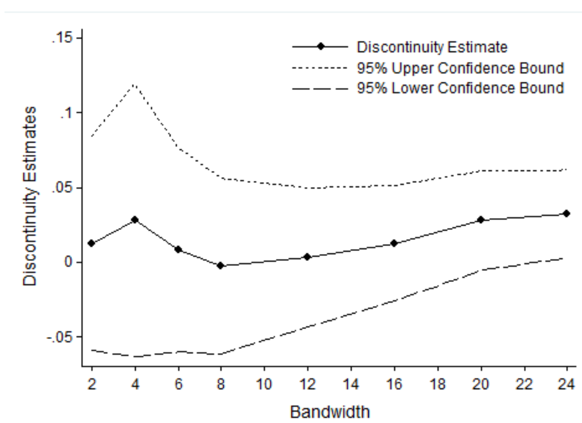
(d) Sensitivity of RD Estimates for B, C, or D RVRs



(e) Effect of Level III/IV on Proportion of Inmates with Division E or F RVRs



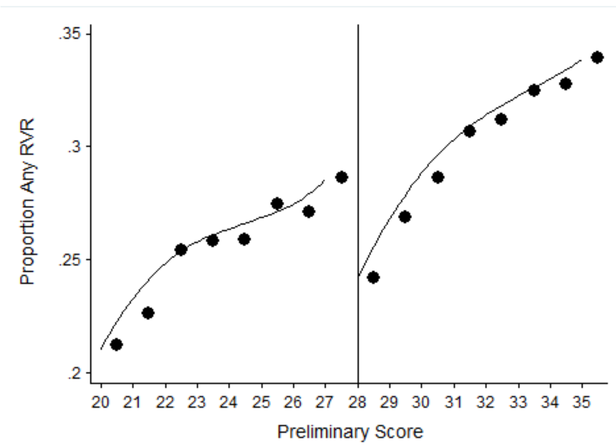
(f) Sensitivity of RD Estimates for E or F RVRs



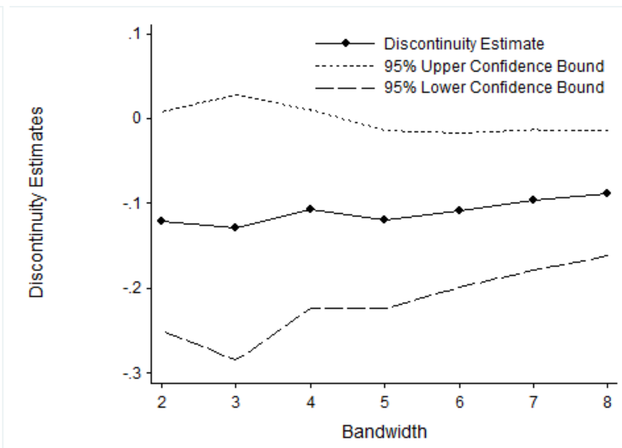
Note: For the graph on the left, the density has been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with the LLR using triangle kernel. The graph on the right shows discontinuity estimates for varying bandwidths all derived using the LLR with a triangle kernel and a binwidth of 1.

Figure 5.23: Robustness Check: Local Polynomial Regression Estimates of the Effect of Facility Security Level on the Likelihood of a Rules Violation Report (RVR) at the Level II/III Cutoff

(a) Effect of Level II/III on Proportion of Inmates with Any RVR



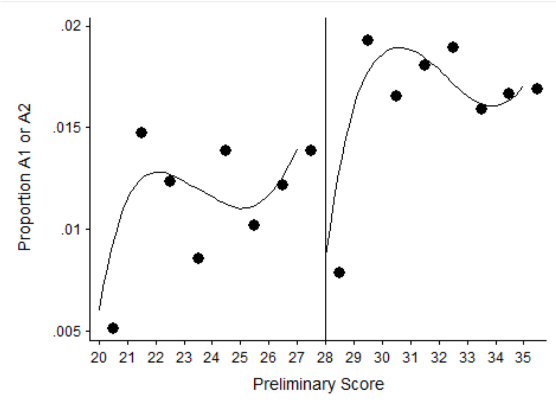
(b) Sensitivity of RD Estimates for Any RVR



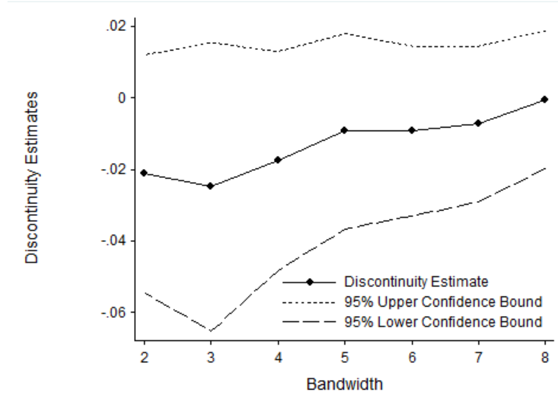
Note: For the graph on the left, the density has been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with local polynomial regressions up to a 3rd order polynomial. The graph on the right shows discontinuity estimates for varying bandwidths all derived using local polynomial regressions up to a third order polynomial with the exception of Bandwidth=2 which included up to the quadratic term.

Figure 5.24: Robustness Check: Local Polynomial Regression Estimates of the Effect of Facility Security Level on the Likelihood of Specific Types of Rules Violation Reports (RVRs) at the Level II/III Cutoff

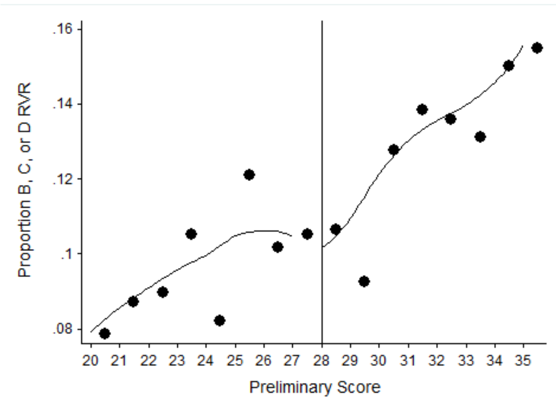
(a) Effect of Level II/III on Proportion of Inmates with Division A1 or A2 RVRs



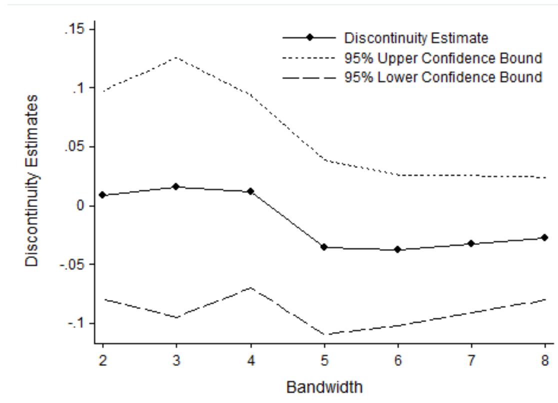
(b) Sensitivity of RD Estimates for A1 or A2 RVRs



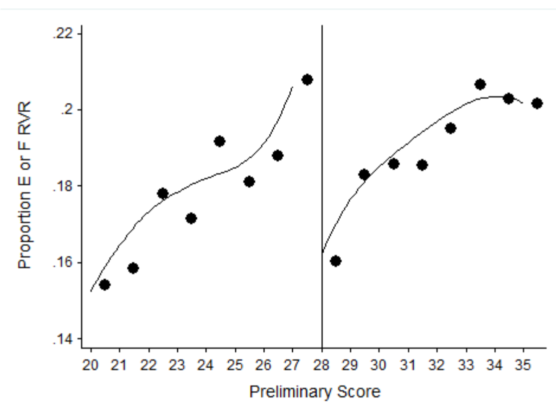
(c) Effect of Level II/III on Proportion of Inmates with Division B, C, or D RVRs



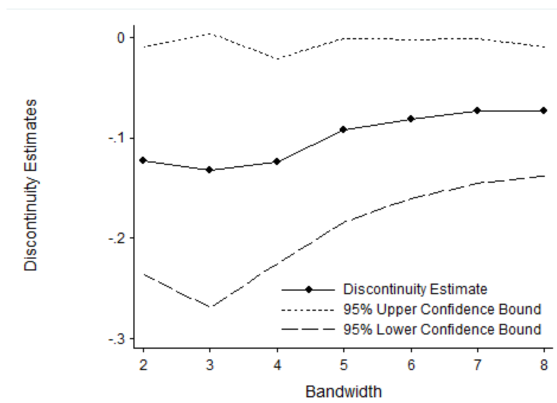
(d) Sensitivity of RD Estimates for B, C, or D RVRs



(e) Effect of Level II/III on Proportion of Inmates with Division E or F RVRs



(f) Sensitivity of RD Estimates for E or F RVRs



Note: For the graph on the left, the density has been plotted with the following: bandwidth of 8, binwidth of 1. The line fit has been conducted with local polynomial regressions up to a 3rd order polynomial. The graph on the right shows discontinuity estimates for varying bandwidths all derived using local polynomial regressions up to a third order polynomial with the exception of Bandwidth=2 which included up to the quadratic term.

6 Tables

Table 6.1: Characteristics of Inmates by Whether or Not the Inmate Reported Receiving a Visit in the Last Month

	(1)	(2)	(3)	(4)	(5)
	All Inmates Mean	All Inmates Std. Dev.	Visited	Not Visited	Difference
Age	35.320	10.450	33.533	35.711	−2.177***
Male	0.932	0.251	0.922	0.937	−0.015**
Race/Ethnicity					
White	0.481	0.500	0.509	0.472	0.037**
Black	0.425	0.494	0.398	0.436	−0.039**
Hispanic	0.181	0.385	0.187	0.179	0.008
U.S, Born	0.919	0.273	0.917	0.920	−0.003
Education					
Elementary	0.021	0.146	0.015	0.025	−0.010***
Middle school	0.163	0.369	0.147	0.172	−0.025***
Some high school	0.468	0.499	0.451	0.479	−0.028***
High school grad.	0.193	0.394	0.217	0.185	0.032***
More than HS	0.137	0.344	0.164	0.129	0.035***
Time served (years)	2.694	2.710	4.084	4.169	−0.085
No. of Previous Incarcerations	1.561	2.939	1.196	1.694	−0.498***
Criminal justice status at arrest					
Parole	0.183	0.387	0.147	0.198	−0.051***
Probation	0.236	0.424	0.245	0.233	0.012***
Escape	0.004	0.062	0.004	0.004	0.000
Controlling offense					
Violent	0.479	0.499	0.509	0.468	0.040***
Property	0.200	0.400	0.179	0.209	−0.030
Drug	0.188	0.391	0.187	0.188	−0.001
Family served time	0.466	0.498	0.433	0.485	−0.052***
Marital status					
Married	0.164	0.370	0.226	0.138	0.087***
Widowed	0.020	0.138	0.017	0.021	−0.004
Divorced	0.196	0.397	0.183	0.202	−0.019
Separated	0.051	0.219	0.041	0.055	−0.015
Children	0.423	0.494	0.409	0.433	−0.024
Expect to be released					
Within the year	0.097	0.296	0.087	0.103	−0.016**
1 to 5 years	0.619	0.485	0.649	0.620	0.030**
6 to 10 years	0.087	0.282	0.093	0.087	0.006*
10+ years	0.141	0.349	0.137	0.146	−0.009
Disabling mental health condition	0.059	0.236	0.047	0.064	−0.017***
Hours spent where inmate sleeps	13.150	5.872	12.674	13.342	−0.668***

Note: Column (1) presents the mean of the characteristic or the proportion of inmates reporting that characteristic; column (2) presents the standard deviation of the mean. Column (3) presents the mean or proportion for inmates who reported receiving a visit from someone who was not their attorney in the past month, column (4) presents means or proportions for inmates who did not receive a visit. Column (5) presents the difference in the means between inmates who were visited and those who were not visited. Differences significant at the 1% level represented by ***, 5% by **, and 10% by *.

Table 6.2: Proportion of Inmates Who Report Being Written Up or Found Guilty of Misconduct by Whether or Not the Inmate Reported Receiving a Visit in the Last Month

	(1)	(2)	(3)	(4)	(5)
	All Inmates	Visited	Not Visited	Difference	Std. Errors
Any Violation	0.513	0.518	0.519	−0.002	0.009
Drugs	0.054	0.066	0.055	0.0101**	0.004
Alcohol	0.022	0.023	0.026	−0.003	0.003
Weapon	0.031	0.033	0.037	−0.004	0.003
Stolen Property	0.012	0.010	0.014	−0.004**	0.002
Other Unauthorized Substance or Item	0.133	0.147	0.134	0.013**	0.006
Verbal Assault Staff	0.080	0.072	0.090	−0.017***	0.005
Physical Assault Staff	0.028	0.027	0.031	−0.003	0.003
Verbal Assault Inmate	0.052	0.424	0.055	−0.013***	0.004
Physical Assault Inmate	0.128	0.130	0.135	−0.005	0.006
Escape or Intended Escape	0.008	0.007	0.009	−0.002	0.001
Being Out of Place	0.155	0.160	0.155	0.004	0.007
Disobeying Orders	0.245	0.242	0.247	−0.004	0.008
Any Major Violation	0.034	0.036	0.038	−0.002	0.004
Any Minor Violation	0.095	0.093	0.099	−0.006	0.006
Any Other Violation	0.064	0.059	0.070	−0.010**	0.005
Total # Violations	3.030	3.004	3.186	−0.182	0.169

Note: Column (1) presents proportion of all inmates who reported being written up or found guilty of misconduct (mean and standard deviation of the total number of violations) since admission to prison for current sentence. Columns (2) & (3) present the proportion of inmates who reported being written up or found guilty of misconduct by whether or not they reported receiving a visit from someone who was not their attorney. Column (4) presents the difference between visited and not visited inmates and Column (5) presents the standard error of the difference. Differences significant at the 1% level are represented by ***, differences significant at the 5% level are represented by **, and differences significant at the 10% level are represented by *. Drug violations include possession, use or dealing drugs. Alcohol violations include unauthorized possession, use or sale. Any major violation includes work slowdowns, food strikes, setting fires or rioting. Any minor violations include those relating to facility orderliness and operation such as use of abusive language, horseplay, or failing to follow sanitary regulations. Any other violation is any violation not specifically named above.

Table 6.3: Proportion of Inmates Receiving a Visit in the Last Month by Distance Between Institution and Home

Distance	All Inmates	Male Inmates	Female Inmates	Inmates Under 25	Inmates 26 to 35	Inmates 36 to 50	Inmates 51 and Older	Inmates With Children	Inmates Without Children
Fewer than 50 miles	0.495	0.496	0.482	0.593	0.547	0.411	0.424	0.461	0.522
50 to 100 miles	0.399	0.397	0.425	0.450	0.469	0.320	0.349	0.389	0.407
101 to 500 miles	0.259	0.253	0.332	0.316	0.300	0.210	0.182	0.249	0.266
501+ miles	0.146	0.143	0.204	0.169	0.169	0.137	0.096	0.128	0.159
Observations	13,102	10,484	2,618	2,213	4,201	5,139	976	5,511	7,591

Note: The distance from home variable in the SISFCF contains the following categories: fewer than 50 miles, 50 to 100 miles, 101 to 500 miles, 501-1,000 miles and more than 1,000 miles. The only state that contains more than 1,000 miles is Alaska. For the purpose of this paper the inmates who are identified as being in Alaska and reported being more than 1,000 miles from home are included in the 501+ mile category; all other inmates who reported being more than 1,000 miles from home have been dropped from the analysis.

Table 6.4: First Stage Relationship Between Distance and Visits for All Inmates and By Offense Type

		Offense Type		
	All Inmates	Violent	Property	Drug
50 to 100 miles	−0.057***	−0.044*	−0.067*	−0.090**
	(0.020)	(0.025)	(0.037)	(0.036)
101 to 500 miles	−0.194***	−0.191***	−0.177***	−0.218***
	(0.017)	(0.019)	(0.029)	(0.031)
501+ miles	−0.307***	−0.317***	−0.290***	−0.285***
	(0.027)	(0.027)	(0.041)	(0.047)
F-Statistic^{+}	58.300	53.650	32.400	20.730
P-value	(0.000)	(0.000)	(0.000)	(0.000)
Observations	12,187	5,700	2,593	2,461

Note: Estimates include all inmates house in state but exclude inmates who report not being eligible for visits. Standard errors are listed in parentheses and have been clustered at the state level. Distance from home was self-reported by inmates in the categories of the instrument (fewer than 50 miles is the omitted category). All of the regression results include the control variables listed in Section 2.7 as well as state fixed effects. Coefficients significant at the 1% level are indicated by ***, 5% significance by **, and 10% significance by *. $^{+}$This is the test statistic (and p-value) from an F-test of the joint significance of the categories of the distance instrument.

Table 6.5: First Stage Relationship Between Distance and Visits by Inmate Age and Time Served on Current Sentence

	Age				Time Served n Current Sentence			
	Under 25	26-35	36-50	51+	1 or less	2-5	6-15	16+
50 to 100 miles	−0.107***	−0.0386	−0.0505	−0.128*	−0.0927***	−0.0589*	−0.0397	−0.0123
	(0.030)	(0.033)	(0.033)	(0.067)	(0.025)	(0.033)	(0.037)	(0.049)
101 to 500 miles	−0.215***	−0.196***	−0.163***	−0.296***	−0.197***	−0.189***	−0.217***	−0.0947*
	(0.033)	(0.025)	(0.018)	(0.051)	(0.026)	(0.028)	(0.026)	(0.050)
501+ miles	−0.396***	−0.338***	−0.237***	−0.430***	−0.301***	−0.337***	−0.317***	−0.169***
	(0.045)	(0.037)	(0.032)	(0.069)	(0.027)	(0.041)	(0.046)	(0.056)
F-Statistic^{+}	38.830	31.470	38.060	23.570	36.910	30.600	21.430	3.550
P-value	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	0.014)
Observations	2,513	3,926	4,763	904	5,274	3,663	2,437	813

Note: Estimates include all inmates house in state but exclude inmates who report not being eligible for visits. Standard errors are listed in parentheses and have been clustered at the state level. Distance from home was self-reported by inmates in the categories of the instrument (fewer than 50 miles is the omitted category). All of the regression results include the control variables listed in Section 2.7 as well as state fixed effects. Coefficients significant at the 1% level are indicated by ***, 5% significance by **, and 10% significance by *. $^{+}$This is the test statistic (and p-value) from an F-test of the joint significance of the categories of the distance instrument.

Table 6.6: First Stage Relationship Between Distance and Visits by Number of Prior Incarcerations and Time to Release

	No. of Prior Incarcerations		Time to Release (years)			
	0	1 or more	1 or less	2-5	6-10	11+
50 to 100 miles	−0.071**	−0.054*	−0.063*	−0.064*	−0.068	−0.031
	(0.022)	(0.030)	(0.031)	(0.029)	(0.046)	(0.059)
101 to 500 miles	−0.194**	−0.197***	−0.197**	−0.198**	−0.225**	−0.183**
	(0.021)	(0.018)	(0.030)	(0.025)	(0.043)	(0.051)
501 to 1,000 miles	−0.337**	−0.288***	−0.294**	−0.324**	−0.347**	−0.298**
	(0.031)	(0.025)	(0.041)	(0.027)	(0.081)	(0.046)
F-Statistic^{+}	49.060	84.300	17.650	83.860	10.740	17.290
P-value	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	6,153	2,152	5,280	3,845	1,026	1,610

Note: Standard errors are listed in parentheses and have been clustered at the state level. Distance from home was self−reported by inmates in the categories of the instrument (fewer than 50 miles is the omitted category). All of the regression results include the control variables listed in Section 2.7 as well as state fixed effects. Coefficients significant at the 1% level are indicated by ***, 5% significance by **, and 10% significance by *. $^{+}$This is the test statistic (and p-value) from an F-test of the joint significance of the categories of the distance instrument.

Table 6.7: Distribution of Inmate Characteristics Across Distance Categories

	(1)	(2)	(3)	(4)	(5)	(6)
	Fewer than 50 miles	50-100 miles	101-500 miles	501+ miles	F-stat	F-stat State FE
Observations	2,088	2,795	6,862	974		
Age	35.540	35.350	35.500	35.520	0.170	0.500
Gender						
Male	0.924	0.928	0.933	0.958	4.120***	5.240***
Race						
White	0.453	0.451	0.487	0.530	8.990***	1.970
Black	0.472	0.467	0.419	0.353	19.510***	6.050***
Hispanic	0.148	0.147	0.183	0.246	21.760***	1.840
U.S. Born	0.925	0.917	0.926	0.888	6.280***	3.250**
Education						
Elementary	0.025	0.022	0.021	0.026	0.660	1.090
Middle School	0.159	0.152	0.169	0.162	1.510	0.650
Some High School	0.438	0.478	0.481	0.440	5.280***	4.040***
High School Graduates	0.218	0.197	0.190	0.197	2.050**	0.380
College Plus	0.155	0.138	0.133	0.158	3.070**	3.240**
Time Served (years)	3.920	4.210	4.220	4.410	2.300*	0.680
Offense Type						
Violent	0.521	0.517	0.536	0.559	2.160*	2.030
Property	0.224	0.213	0.217	0.211	0.340	0.960
Drug	0.210	0.215	0.203	0.197	0.740	0.420
Family Served Time	0.469	0.474	0.475	0.472	0.070	0.430
Marital Status						
Married	0.148	0.164	0.174	0.160	2.730***	2.150*
Widowed	0.019	0.020	0.020	0.015	0.280	0.270
Divorced	0.206	0.198	0.196	0.205	0.430	0.660
Separated	0.052	0.048	0.052	0.050	0.210	0.860
Children	0.439	0.404	0.429	0.417	2.320*	1.650
Time to Release (years)	2.530	2.950	3.290	4.140	15.050	5.080***
Disabling mental health condition	0.060	0.061	0.057	0.042	1.920	4.470***
Hours Spent in Cell	12.630	13.150	13.050	13.540	6.360***	4.690***
# of Prior Incarcerations	1.440	1.390	1.560	1.640	3.690**	1.840

Note: Columns (1)-(4) present the proportion of inmates with that characteristic in each of the distance categories. Column (5) presents the test statistic from an F-test of the joint significance of the proportions across the distance categories. Column (6) presents the test statistic from an F-test of the joint significance of the proportions across the distance categories controlling for variations across states. Differences significant at the 1% level are indicated by ***, 5% significance by **, and 10% significance by *.

Table 6.8: Estimates of the Effect of Visitation on Prison Misconduct, OLS and 2SLS

	(1)	(2)	(3)	(4)	(5)	(6)
Any Violation	−0.001	−0.244***	−0.003	−0.154***	−0.007	−0.086*
	(0.018)	(0.081)	(0.013)	(0.053)	(0.011)	(0.046)
Total # Violations	−0.183	−3.226**	−0.155	−2.719**	−0.213	−2.506***
	(0.224)	(1.478)	(0.187)	(1.098)	(0.175)	(0.918)
Drugs	0.010*	0.038	0.010*	0.064*	0.005	0.039
	(0.005)	(0.039)	(0.005)	(0.037)	(0.004)	(0.026)
Alcohol	−0.003	−0.024	0.000	−0.001	0.001	−0.005
	(0.003)	(0.020)	(0.003)	(0.016)	(0.003)	(0.014)
Weapon	−0.004	−0.059**	−0.001	−0.048**	−0.001	−0.054***
	(0.003)	(0.024)	(0.003)	(0.019)	(0.003)	(0.018)
Stolen Property	−0.004	−0.021**	−0.004	−0.022*	−0.005	−0.027*
	(0.003)	(0.010)	(0.003)	(0.011)	(0.003)	(0.013)
Other Unauthorized	0.013	−0.039	0.011	0.002	0.004	−0.011
Substance or Item	(0.010)	(0.090)	(0.008)	(0.060)	(0.007)	(0.041)
Verbal Assault on Staff	−0.017**	−0.083*	−0.014**	−0.062	−0.016***	−0.055
	(0.007)	(0.041)	(0.006)	(0.037)	(0.005)	(0.037)
Physical Assault on Staff	−0.003	−0.027	−0.000	−0.015	−0.001	−0.018
	(0.002)	(0.024)	(0.003)	(0.022)	(0.003)	(0.016)
Verbal Assault on Another	−0.013**	−0.050*	−0.011*	−0.046*	−0.013**	−0.057**
Inmate	(0.005)	(0.027)	(0.0057)	(0.024)	(0.006)	(0.023)
Physical Assault on Another	−0.005	−0.140**	−0.004	−0.112**	−0.003	−0.086**
Inmate	(0.006)	(0.061)	(0.006)	(0.042)	(0.006)	(0.037)
Escape or Intended Escape	−0.002	−0.002	0.000	0.002	−0.000	−0.008
	(0.001)	(0.008)	(0.001)	(0.008)	(0.001)	(0.010)
Being Out of Place	0.004	−0.139*	0.000	−0.114**	−0.002	−0.088**
	(0.009)	(0.069)	(0.008)	(0.055)	(0.007)	(0.038)
Disobeying Orders	−0.004	−0.145*	−0.004	−0.109*	−0.010	−0.057
	(0.013)	(0.075)	(0.010)	(0.062)	(0.008)	(0.053)
Any Major Violation	−0.002	−0.060***	−0.000	−0.037*	0.000	−0.005
	(0.003)	(0.019)	(0.003)	(0.021)	(0.003)	(0.026)
Any Minor Violation	−0.006	−0.092***	−0.003	−0.067**	−0.003	−0.047
	(0.005)	(0.031)	(0.006)	(0.029)	(0.006)	(0.028)
Any Other Violation	−0.010	−0.078***	−0.011	−0.063**	−0.010	−0.036
	(0.006)	(0.028)	(0.006)	(0.028)	(0.006)	(0.028)
Observations	13,052	12,554	12,146	11,697	12,146	11,697

Note: Estimates include all inmates house in state but exclude inmates who report not being eligible for visits. Columns (1) and (2) present bivariate OLS and 2SLS estimates respectively. Columns (3) & (4) present OLS and 2SLS estimates that include the control variables listed in Section 2.7. Column (5) presents OLS estimates with all the control variables listed in Section 2.7 as well as state fixed effects. Column (6) presents 2SLS estimates from the preferred specification which includes the control variables from Section 2.7 as well as state fixed effects. Standard errors are in parentheses and have been clustered at the state level. Coefficients significant at the 1% level are indicated by ***, 5% significance is indicated by **, and 10% significance indicated by *.

Table 6.9: 2SLS Estimates of the Effect of Visitation on Prison Misconduct By Inmate Age

	(1)	(2)	(3)	(4)
	Under 25	26-35	36-50	51+
Any Violation	−0.242***	−0.066	0.056	−0.143
	(0.081)	(0.078)	(0.096)	(0.178)
Total # Violations	−4.828***	−3.657***	−0.680	−1.193
	(1.520)	(1.339)	(2.087)	(1.387)
Drugs	0.011	0.065	0.065	−0.105
	(0.041)	(0.042)	(0.045)	(0.073)
Alcohol	−0.033	−0.019	0.031	−0.009
	(0.026)	(0.017)	(0.038)	(0.053)
Weapon	−0.051*	−0.079**	−0.019	−0.111*
	(0.030)	(0.034)	(0.042)	(0.058)
Stolen Property	−0.063**	−0.019	−0.001	−0.042
	(0.027)	(0.021)	(0.019)	(0.035)
Other Unauthorized Substance or Item	−0.053	−0.062	0.053	0.062
	(0.064)	(0.063)	(0.049)	(0.124)
Verbal Assault on Staff	−0.116	−0.103*	0.023	0.054
	(0.069)	(0.053)	(0.049)	(0.064)
Physical Assault on Staff	−0.067**	−0.051*	0.035	0.014
	(0.030)	(0.026)	(0.027)	(0.034)
Verbal Assault on Another Inmate	−0.066	−0.083*	−0.010	−0.026
	(0.054)	(0.046)	(0.039)	(0.050)
Physical Assault on Another Inmate	−0.145	−0.105*	−0.047	−0.062
	(0.094)	(0.059)	(0.061)	(0.096)
Escape or Intended Escape	−0.003	−0.000	−0.002	−0.028
	(0.008)	(0.010)	(0.029)	(0.040)
Being Out of Place	−0.027	−0.144***	−0.022	−0.278**
	(0.074)	(0.052)	(0.072)	(0.121)
Disobeying Orders	−0.125	−0.051	0.054	−0.055
	(0.112)	(0.063)	(0.097)	(0.123)
Any Major Violation	−0.058	0.016	0.006	−0.068
	(0.040)	(0.050)	(0.027)	(0.043)
Any Minor Violation	−0.165**	−0.127***	0.037	0.075
	(0.066)	(0.040)	(0.070)	(0.082)
Any Other Violation	−0.059	0.004	−0.058	−0.024
	(0.047)	(0.058)	(0.047)	(0.036)
Observations	2,394	3,773	4,578	875

Note: All columns present 2SLS estimates that include the control variables listed in Section 2.7 as well as state fixed effects. Estimates include all inmates house in state but exclude inmates who report not being eligible for visits. Standard errors are in parentheses and have been clustered at the state level. Coefficients significant at the 1% level are indicated by ***, 5% significance is indicated by **, and 10% significance indicated by *.

Table 6.10: 2SLS Estimates of the Effect of Visitation on Prison Misconduct By Time Served on Current Sentence (Years)

	(1)	(2)	(3)
	One year or less	2-5 years	6-15 years
Any Violation	−0.059	−0.165	−0.134
	(0.091)	(0.101)	(0.096)
Total # Violations	−0.099	−3.836***	−3.474
	(0.362)	(1.328)	(2.802)
Drugs	0.022	0.014	0.002
	(0.021)	(0.035)	(0.088)
Alcohol	−0.006	−0.010	−0.063
	(0.008)	(0.020)	(0.042)
Weapon	−0.008	−0.049	−0.125**
	(0.005)	(0.032)	(0.056)
Stolen Property	−0.008	−0.041**	−0.052
	(0.008)	(0.021)	(0.039)
Other Unauthorized Substance or Item	−0.032	0.086	−0.044
	(0.034)	(0.088)	(0.073)
Verbal Assault on Staff	−0.007	−0.031	−0.140*
	(0.032)	(0.059)	(0.071)
Physical Assault on Staff	0.000	−0.042	−0.033
	(0.016)	(0.026)	(0.049)
Verbal Assault on Another Inmate	−0.003	−0.098***	−0.084*
	(0.023)	(0.036)	(0.048)
Physical Assault on Another Inmate	0.009	−0.135*	−0.250**
	(0.033)	(0.068)	(0.102)
Escape or Intended Escape	0.000	−0.008	0.017
	(0.005)	(0.008)	(0.031)
Being Out of Place	−0.020	−0.163**	−0.092
	(0.056)	(0.076)	(0.073)
Disobeying Orders	−0.043	−0.025	−0.131
	(0.066)	(0.087)	(0.092)
Any Major Violation	−0.008	−0.009	0.013
	(0.023)	(0.033)	(0.047)
Any Minor Violation	−0.012	−0.149***	0.031
	(0.030)	(0.050)	(0.063)
Any Other Violation	0.015	−0.082**	−0.043
	(0.032)	(0.040)	(0.063)
Observations	5,092	3,519	2,323

Note: All columns present 2SLS estimates that include the control variables listed in Section 2.7 as well as state fixed effects. Estimates include all inmates house in state but exclude inmates who report not being eligible for visits. Standard errors are in parentheses and have been clustered at the state level. Coefficients significant at the 1% level are indicated by ***, 5% significance is indicated by **, and 10% significance indicated by *.

Table 6.11: 2SLS Estimates of the Effect of Visitation on Prison Misconduct By Prior Incarcerations

	(1)	(2)
	No Prior Incarcerations	One or More Prior Incarcerations
Any Violation	−0.175***	−0.005
	(0.053)	(0.081)
Total # Violations	−4.744***	−0.430
	(1.489)	(1.147)
Drugs	0.027	0.063*
	(0.035)	(0.033)
Alcohol	−0.028	0.017
	(0.017)	(0.028)
Weapon	−0.038*	−0.063**
	(0.021)	(0.028)
Stolen Property	−0.035*	−0.020
	(0.018)	(0.020)
Other Unauthorized Substance or Item	−0.034	0.024
	(0.045)	(0.059)
Verbal Assault on Staff	−0.075**	−0.039
	(0.036)	(0.053)
Physical Assault on Staff	−0.017	−0.020
	(0.018)	(0.016)
Verbal Assault on Another Inmate	−0.025	−0.088***
	(0.035)	(0.026)
Physical Assault on Another Inmate	−0.131***	−0.056
	(0.040)	(0.049)
Escape or Intended Escape	−0.017	−0.004
	(0.016)	(0.015)
Being Out of Place	−0.174***	−0.008
	(0.049)	(0.057)
Disobeying Orders	−0.111**	−0.031
	(0.045)	(0.078)
Any Major Violation	−0.039*	0.021
	(0.021)	(0.037)
Any Minor Violation	−0.103**	−0.010
	(0.039)	(0.046)
Any Other Violation	−0.040	−0.036
	(0.035)	(0.038)
Observations	5,952	5,745

Note: All columns present 2SLS estimates that include the control variables listed in Section 2.7 as well as state fixed effects. Estimates include all inmates house in state but exclude inmates who report not being eligible for visits. Standard errors are in parentheses and have been clustered at the state level. Coefficients significant at the 1% level are indicated by ***, 5% significance is indicated by **, and 10% significance indicated by *.

Table 6.12: 2SLS Estimates of the Effect of Visitation on Prison Misconduct By Time to Anticipated Release (Years)

	(1)	(2)	(3)	(4)
	One year or less	2-5 years	6-10 years	11+ years
Any Violation	−0.141**	−0.079	−0.187	−0.017
	(0.058)	(0.090)	(0.120)	(0.184)
Total # Violations	−1.892*	−2.081**	−1.951	−5.242
	(1.038)	(0.914)	(3.037)	(4.405)
Drugs	0.034	0.003	0.014	0.084
	(0.038)	(0.042)	(0.077)	(0.072)
Alcohol	0.008	−0.033	−0.006	0.039
	(0.020)	(0.023)	(0.052)	(0.082)
Weapon	−0.038	−0.098***	−0.069	0.000
	(0.028)	(0.021)	(0.074)	(0.062)
Stolen Property	−0.030	−0.041*	−0.003	−0.047
	(0.021)	(0.022)	(0.014)	(0.029)
Other Unauthorized Substance or Item	−0.018	0.021	−0.099	0.027
	(0.061)	(0.049)	(0.109)	(0.105)
Verbal Assault on Staff	−0.069*	−0.028	−0.062	−0.125
	(0.039)	(0.054)	(0.074)	(0.095)
Physical Assault on Staff	0.006	−0.025	−0.056	−0.061
	(0.025)	(0.022)	(0.063)	(0.051)
Verbal Assault on Another Inmate	−0.092***	−0.008	−0.087	0.001
	(0.034)	(0.041)	(0.073)	(0.055)
Physical Assault on Another Inmate	−0.124**	−0.062	−0.028	−0.158
	(0.051)	(0.063)	(0.109)	(0.108)
Escape or Intended Escape	0.004	−0.009	−0.023	−0.021
	(0.010)	(0.017)	(0.033)	(0.037)
Being Out of Place	−0.075	−0.149**	−0.043	−0.161
	(0.049)	(0.056)	(0.125)	(0.125)
Disobeying Orders	−0.129*	−0.004	0.165	−0.162
	(0.066)	(0.068)	(0.176)	(0.167)
Any Major Violation	0.011	−0.022	−0.048	0.026
	(0.029)	(0.039)	(0.067)	(0.090)
Any Minor Violation	−0.102**	−0.030	−0.148**	0.075
	(0.050)	(0.042)	(0.063)	(0.084)
Any Other Violation	−0.052	−0.009	−0.176*	0.054
	(0.037)	(0.042)	(0.102)	(0.107)
Observations	5,092	3,693	984	1,533

Note: All columns present 2SLS estimates that include the control variables listed in Section 2.7 as well as state fixed effects. Estimates include all inmates house in state but exclude inmates who report not being eligible for visits. Standard errors are in parentheses and have been clustered at the state level. Coefficients significant at the 1% level are indicated by ***, 5% significance is indicated by **, and 10% significance indicated by *.

Table 6.13: Robustness Check − Include Out of State Inmates: Estimates of the Effect of Visitation on Prison Misconduct, OLS and 2SLS

	(1)	(2)	(3)	(4)	(5)	(6)
Any Violation	−0.001	−0.237***	−0.004	−0.154*	−0.005	−0.059
	(0.018)	(0.075)	(0.014)	(0.082)	(0.012)	(0.048)
Total # Violations	−0.145	−2.965**	−0.205	−2.355*	−0.168	−2.104**
	(0.222)	(1.378)	(0.186)	(1.224)	(0.181)	(0.959)
Drugs	0.0103*	0.037	0.010**	0.0619*	0.006	0.038
	(0.005)	(0.039)	(0.005)	(0.036)	(0.004)	(0.025)
Alcohol	−0.00323	−0.020	0.000	0.002	0.001	−0.002
	(0.003)	(0.020)	(0.003)	(0.016)	(0.003)	(0.014)
Weapon	−0.003	−0.058**	−0.000	−0.049**	−0.001	−0.057***
	(0.004)	(0.023)	(0.003)	(0.019)	(0.004)	(0.018)
Stolen Property	−0.004	−0.023*	−0.004	−0.023*	−0.004	−0.026*
	(0.003)	(0.012)	(0.003)	(0.012)	(0.003)	(0.013)
Other Unauthorized	0.014	−0.040	0.012	−0.000	0.005	−0.008
Substance or Item	(0.010)	(0.085)	(0.009)	(0.058)	(0.008)	(0.041)
Verbal Assault on Staff	−0.017**	−0.093**	−0.014**	−0.071**	−0.016***	−0.067*
	(0.007)	(0.038)	(0.006)	(0.035)	(0.006)	(0.036)
Physical Assault on Staff	−0.004	−0.024	−0.000	−0.013	−0.001	−0.016
	(0.003)	(0.022)	(0.003)	(0.019)	(0.004)	(0.013)
Verbal Assault on Another	−0.013**	−0.046*	−0.011*	−0.042*	−0.013**	−0.052**
Inmate	(0.005)	(0.026)	(0.006)	(0.022)	(0.006)	(0.021)
Physical Assault on Another	−0.004	−0.136**	−0.003	−0.108**	−0.003	−0.087**
Inmate	(0.007)	(0.059)	(0.006)	(0.041)	(0.006)	(0.036)
Escape or Intended Escape	−0.001	−0.003	0.001	0.002	−0.000	−0.008
	(0.002)	(0.009)	(0.002)	(0.009)	(0.002)	(0.011)
Being Out of Place	0.004	−0.136**	−0.000	−0.115**	−0.003	−0.087**
	(0.009)	(0.063)	(0.008)	(0.052)	(0.007)	(0.037)
Disobeying Orders	−0.004	−0.142**	−0.003	−0.101*	−0.009	−0.045
	(0.014)	(0.069)	(0.011)	(0.059)	(0.009)	(0.056)
Any Major Violation	−0.002	−0.056***	−0.000	−0.033	0.001	−0.000
	(0.003)	(0.020)	(0.003)	(0.021)	(0.004)	(0.026)
Any Minor Violation	−0.006	−0.082***	−0.003	−0.058**	−0.003	−0.028
	(0.006)	(0.030)	(0.006)	(0.028)	(0.007)	(0.029)
Any Other Violation	−0.009	−0.069**	−0.009	−0.053*	−0.008	−0.026
	(0.007)	(0.028)	(0.007)	(0.027)	(0.006)	(0.026)
Observations	13,317	12,819	12,381	11,932	12,381	11,932

Note: Columns (1) and (2) present bivariate OLS and 2SLS estimates respectively. Columns (3) & (4) present OLS and 2SLS estimates that include the control variables listed in Section 2.7. Column (5) presents OLS estimates with all the control variables listed in Section 2.7 as well as state fixed effects. Column (6) presents 2SLS estimates from the preferred specification which includes the control variables from Section 2.7 as well as state fixed effects. Estimates are derived using the full sample of inmates housed in-state and those that appear to be housed out of state, but exclude inmates who report not being eligible for visits. Standard errors are in parentheses and have been clustered at the state level. Coefficients significant at the 1% level are indicated by ***, 5% significance is indicated by **, and 10% significance indicated by *.

Table 6.14: Robustness Check − Drop Inmates Within 1 Year of Anticipated Release: Estimates of the Effect of Visitation on Prison Misconduct, OLS and 2SLS

	(1)	(2)	(3)	(4)	(5)	(6)
Any Violation	−0.016	−0.210**	−0.020	−0.116	−0.021	−0.039
	(0.019)	(0.078)	(0.015)	(0.091)	(0.013)	(0.063)
Total # Violations	−0.409	−3.324**	−0.467**	−2.950**	−0.370**	−2.712**
	(0.259)	(1.561)	(0.190)	(1.420)	(0.175)	(1.169)
Drugs	0.010	0.067	0.010	0.0812*	0.002	0.039
	(0.006)	(0.051)	(0.007)	(0.045)	(0.007)	(0.034)
Alcohol	−0.005	−0.038	0.001	−0.009	0.003	−0.012
	(0.004)	(0.023)	(0.004)	(0.018)	(0.004)	(0.018)
Weapon	−0.011**	−0.061**	−0.006	−0.051**	−0.007	−0.057***
	(0.005)	(0.028)	(0.004)	(0.024)	(0.005)	(0.019)
Stolen Property	−0.003	−0.016	−0.002	−0.015	−0.003	−0.025*
	(0.004)	(0.013)	(0.004)	(0.013)	(0.004)	(0.014)
Other Unauthorized	0.001	−0.047	0.006	−0.005	0.001	0.003
Substance or Item	(0.012)	(0.086)	(0.011)	(0.061)	(0.010)	(0.050)
Verbal Assault on Staff	−0.025***	−0.073	−0.017**	−0.063	−0.020***	−0.050
	(0.008)	(0.048)	(0.007)	(0.045)	(0.007)	(0.046)
Physical Assault on Staff	−0.006	−0.032	−0.000	−0.025	−0.001	−0.031**
	(0.004)	(0.025)	(0.005)	(0.025)	(0.005)	(0.014)
Verbal Assault on Another	−0.018***	−0.030	−0.013*	−0.025	−0.016**	−0.030
Inmate	(0.007)	(0.028)	(0.007)	(0.024)	(0.008)	(0.023)
Physical Assault on Another	−0.016*	−0.133*	−0.009	−0.106**	−0.006	−0.055
Inmate	(0.008)	(0.068)	(0.009)	(0.051)	(0.009)	(0.046)
Escape or Intended Escape	−0.004	−0.007	−0.000	−0.003	−0.001	−0.017
	(0.003)	(0.014)	(0.003)	(0.013)	(0.003)	(0.017)
Being Out of Place	−0.017*	−0.151*	−0.016*	−0.146*	−0.019**	−0.112*
	(0.009)	(0.085)	(0.010)	(0.076)	(0.008)	(0.057)
Disobeying Orders	−0.020	−0.118	−0.007	−0.088	−0.014	0.002
	(0.015)	(0.097)	(0.014)	(0.086)	(0.012)	(0.071)
Any Major Violation	−0.004	−0.076***	0.000	−0.058**	0.004	−0.016
	(0.005)	(0.021)	(0.007)	(0.024)	(0.007)	(0.030)
Any Minor Violation	−0.022***	−0.063*	−0.016**	−0.043	−0.017**	−0.015
	(0.007)	(0.035)	(0.007)	(0.032)	(0.008)	(0.029)
Any Other Violation	−0.021**	−0.073*	−0.021**	−0.065*	−0.022***	−0.023
	(0.008)	(0.038)	(0.008)	(0.036)	(0.008)	(0.035)
Observations	7,398	7,092	6,875	6,603	6,875	6,603

Note: Columns (1) and (2) present bivariate OLS and 2SLS estimates respectively. Columns (3) & (4) present OLS and 2SLS estimates that include the control variables listed in Section 2.7. Column (5) presents OLS estimates with all the control variables listed in Section 2.7 as well as state fixed effects. Column (6) presents 2SLS estimates from the preferred specification which includes the control variables from Section 2.7 as well as state fixed effects. Estimates are derived using inmates who are housed in-state, but exclude inmates who report not being eligible for visits and those who anticipate being released within the year. Standard errors are in parentheses and have been clustered at the state level. Coefficients significant at the 1% level are indicated by ***, 5% significance is indicated by **, and 10% significance indicated by *.

Table 6.15: Robustness Check – Drop Inmates Transferred to Another Facility as a Result of a Disciplinary Action: Estimates of the Effect of Visitation on Prison Misconduct, OLS and 2SLS

	(1)	(2)	(3)	(4)	(5)	(6)
Any Violation	0.001	−0.237***	−0.003	−0.166**	−0.005	−0.078**
	(0.018)	(0.079)	(0.014)	(0.082)	(0.012)	(0.046)
Total # Violations	−0.120	−3.157**	−0.192	−2.768**	−0.148	−2.563**
	(0.219)	(1.525)	(0.180)	(1.283)	(0.175)	(0.955)
Drugs	0.011**	0.036	0.010**	0.060	0.006	0.037
	(0.005)	(0.038)	(0.005)	(0.036)	(0.004)	(0.026)
Alcohol	−0.002	−0.022	0.001	0.000	0.002	−0.002
	(0.003)	(0.020)	(0.003)	(0.016)	(0.003)	(0.014)
Weapon	−0.003	−0.058**	−0.000	−0.047**	−0.001	−0.056***
	(0.004)	(0.023)	(0.004)	(0.019)	(0.004)	(0.018)
Stolen Property	−0.004	−0.023**	−0.004	−0.024**	−0.005	−0.027**
	(0.004)	(0.011)	(0.003)	(0.012)	(0.004)	(0.014)
Other Unauthorized	0.016	−0.037	0.014	0.001	0.007	−0.013
Substance or Item	(0.011)	(0.090)	(0.009)	(0.059)	(0.008)	(0.040)
Verbal Assault on Staff	−0.015**	−0.075**	−0.012**	−0.055	−0.014**	−0.050
	(0.007)	(0.041)	(0.006)	(0.037)	(0.006)	(0.038)
Physical Assault on Staff	−0.001	−0.022	0.001	−0.009	0.000	−0.014
	(0.003)	(0.023)	(0.004)	(0.021)	(0.004)	(0.016)
Verbal Assault on Another	−0.011**	−0.046**	−0.010	−0.043**	−0.012**	−0.055**
Inmate	(0.006)	(0.027)	(0.006)	(0.024)	(0.006)	(0.024)
Physical Assault on Another	−0.002	−0.122**	−0.001	−0.097**	−0.002	−0.077**
Inmate	(0.007)	(0.060)	(0.007)	(0.042)	(0.007)	(0.037)
Escape or Intended Escape	−0.002	−0.003	0.001	0.001	−0.000	−0.010
	(0.002)	(0.009)	(0.002)	(0.008)	(0.002)	(0.010)
Being Out of Place	0.006	−0.132**	0.001	−0.108**	−0.001	−0.082**
	(0.009)	(0.067)	(0.008)	(0.052)	(0.008)	(0.039)
Disobeying Orders	−0.003	−0.151**	−0.004	−0.119**	−0.010	−0.067
	(0.014)	(0.073)	(0.011)	(0.060)	(0.009)	(0.052)
Any Major Violation	−0.001	−0.059***	0.000	−0.038**	0.002	−0.007
	(0.003)	(0.019)	(0.003)	(0.019)	(0.003)	(0.024)
Any Minor Violation	−0.006	−0.082***	−0.003	−0.058**	−0.003	−0.028
	(0.006)	(0.030)	(0.006)	(0.028)	(0.007)	(0.029)
Any Other Violation	−0.009	−0.069**	−0.009	−0.053**	−0.008	−0.026
	(0.007)	(0.028)	(0.007)	(0.027)	(0.006)	(0.026)
Observations	13,317	12,819	12,381	11,932	12,381	11,932

Note: Columns (1) and (2) present bivariate OLS and 2SLS estimates respectively. Columns (3) & (4) present OLS and 2SLS estimates that include the control variables listed in Section 2.7. Column (5) presents OLS estimates with all the control variables listed in Section 2.7 as well as state fixed effects. Column (6) presents 2SLS estimates from the preferred specification which includes the control variables from Section 2.7 as well as state fixed effects. Estimates are derived using inmates who are housed in-state, but exclude inmates who report not being eligible for visits and those who report being transferred to another facility as a result of a disciplinary action. Standard errors are in parentheses and have been clustered at the state level. Coefficients significant at the 1% level are indicated by ***, 5% significance is indicated by **, and 10% significance indicated by *.

Table 6.16: Classification Instrument: Elements and Associated Weights of the Background Factor Score

Characteristic	Points	Minimum Value	Maximum Value
Age at First Arrest	0-17yrs=12 18-21yrs=10 2-29yrs=8 30-35yrs=4 36+ yrs=0	36+ Years old 0 points	0-17 Years old 12 points
Age at Reception	16-20yrs=8 21-25yrs=6 27-35yrs=4 36+ yrs=0	36+ Years old 0 points	16-20 Years old 8 points
Prison Term in Years	term x 2	1 year sentence 2 points	25+ year sentence 50 points
Member of Street Gang or Disruptive Group	6	No verified membership 0 points	Verified membership 6 points
Mental Illness	4	No mental illness 0 points	Mental illness designation 4 points
Prior Jail or County Juvenile Sentence of 31+ days	Max 1	No prior jail or juvenile sentence of 31+ days 0 points	Prior jail or juvenile sentence of 31+ days 1 point
Prior Incarcerations			
a) CA Youth Auth. or other state/fed juvenile incarceration	Max 1	No juvenile incarceration 0 points	Juvenile incarceration 1 point
b) CDCR or other state/fed adult incarceration	Max 1	No adult incarceration 0 points	Adult incarceration 1 point
Total Possible Background Factor Score		Min: 2 points	Max: 83 points

Note: This table details the inmate characteristics and weights that comprise the background factor score as determined by CDCR Form 839 (Figure 5.7).

Table 6.17: Classification Instrument: Elements and Associated Weights of the Prior Incarceration Behavior Score

Characteristic	Points	Minimum Value	Maximum Value
Prior Incarceration Behavior (Last 12 Months of Incarceration)			
a) Favorable			
No serious disciplinary			
b) Unfavorable			
Serious disciplinary	Number x 4	None	Unlimited
		0 points	∞ points
Serious Disciplinary History			
a) Battery or attempted	Number x 8	None	Unlimited
battery on a non-prisoner		0 points	∞ points
b) Battery or attempted	Number x 4	None	Unlimited
battery on an inmate		0 points	∞ points
c) Distribution of drugs	Number x 4	None	Unlimited
		0 points	∞ points
d) Possession of a deadly	Number x 4	None	Unlimited
weapon	or	0 points	∞ points
(Within last 5 years)	Number x 8		
e) Inciting a disturbance	Number x 4	None	Unlimited
		0 points	∞ points
f) Battery causing serious	Number x 16	None	Unlimited
injury		0 points	∞ points
Total Possible Prior Incarceration			
Behavior Score		Min: -4 points	Max: ∞ points

Note: This table details the inmate characteristics and weights that comprise the prior incarceration behavior score as determined by CDCR Form 839 (Figure 5.7). The prior incarceration behavior score is recalculated annually during re-classification using CDCR Form 840 (Figure 5.8.

Table 6.18: Mandatory Minimum Point Allocations

Mandatory Minimum	Characteristic
52 Points	• Inmates sentenced to death • Inmates sentenced to life without the possibility of parole (LWOP)
28 Points	• Inmates serving multiple life terms or life with specific circumstances
19 Points	• Inmates with a history of escape • Immigration and Customs Enforcement (ICE) hold • Inmates committed for specific sex offenses or sex related behavior • Inmates found to be violent felons per statutory requirements • Inmates determined to meet criteria as a high notoriety inmate • Inmates serving a life sentence

Note: This table includes the characteristics that render an inmate eligible for a mandatory minimum point allocation. The mandatory minimum point allocation replaces the preliminary score if the preliminary score is less than the mandatory minimum allocation. There are no death row inmates in the sample for this study, any inmates with a mandatory minimum of 52 have been sentenced to life without the possibility of parole.

Table 6.19: Elements of Inmate Preliminary Classification Score

Factor Score	Elements
Background Factor Score	• Age at first arrest • Age at reception • Term - Current sentence (measured in years) • Gang involvement: including type of gang and method of verification (i.e. self-report, particular tattoos and symbols) • Prior jail or county juvenile sentence of 31+ days • Prior incarceration(s)
Prior Incarceration Factor Score	• Any serious disciplinary history • Battery or attempted battery on a non-prisoner • Battery or attempted batter on an inmate • Distribution of drugs • Possession of a deadly weapon (double weighted if within the last 5 years) • Inciting a disturbance • Battery causing serious injury

Note: These are the predictive factors used to calculate preliminary classification score from the CDCR Form 840. The associated weights used to calculate the score can be found in Appendix 3.9.

Table 6.20: CDCR Facility Security Levels and Associated Placement Score Ranges

Point Range	Security Level
0 to 18 points	Level I Facilities - Minimum Security • Low security perimeter like a chain link fence • Housing consists of mostly open dormitories
19 to 27 points	Level II Facilities - Medium Security • Secure perimeter, which may include armed coverage • Housing consists primarily of open dormitories • Average 15 custody staff per 100 inmates • Average 5 violent disciplinary reports per 100 inmates • Average 2 lockdowns per month
28 to 51 points	Level III Facilities - Close Security • Secure perimeter with armed coverage • Predominately celled housing, cells may be adjacent to exterior walls • Celled housing units are either 180 or 270 degrees, which refers to the view from a central elevated control booth. • Average 18 custody staff per 100 inmates • Average 11.25 violent disciplinary reports per 100 inmates • Average 2 lockdowns per month
52 or more points	Level IV Facilities - Maximum Security • Secure perimeter with internal and external armed coverage • Cell block housing with cells non-adjacent to exterior walls • Celled housing units are either 180 or 270 degrees, which refers to the view from a central elevated control booth. • Average 22 custody staff per 100 inmates • Average 25.8 violent disciplinary report per 100 inmates • Average 5 lockdowns per month

Note: Features of CDCR facility security levels and corresponding placement score values from California Code of Regulations. Custody staff averages from COMPSTAT data referenced in Lerman (2013).

Table 6.21: Description of CDCR Serious Rule Violations By Type

Rule Violation Type	Examples
A1 & A2	• Murder, attempted murder, and solicitation of murder • Manslaughter • Battery causing serious injury and attempted battery or battery with a deadly weapon or caustic substance • Rape, attempted rape, sodomy, attempted sodomy, oral copulation, and attempted oral copulation, and attempted oral copulation against the victim's will • Taking a hostage • Escape or attempted escape with force or violence • Possession or manufacture of a deadly weapon or explosive device • Arson involving damage to a structure or possession of flammable, explosive, or combustible material with intent to burn any structure or property • Solicitation of battery with a deadly weapon or battery by means of force likely to produce serious injury, arson, or a forcible sex act • Destruction of state property valued in excess of $400 during a riot or disturbance • Any other felony involving violence or injury to a victim • Distribution of any controlled substance in an institution/facility or contract health facility • Conspiracy to commit any Division "A-1" or "A-2" offense.
B, C, D	• Attempted battery or battery on a non prisoner or on a peace officer not involving use of a weapon • Threat of force or violence against a public official • Escape from any institution or community correctional facility; attempted escape without use of force; or aiding and abetting an escape or escape attempt • Theft, embezzlement, destruction, misuse, alteration, damage, unauthorized acquisition, or exchange of personal property, state funds, or state property valued in excess of $400 • Unauthorized possession or control of any controlled substance • Any felony not involving violence or the use of a weapon not listed in this schedule • Unauthorized possession of materials which can be made into a weapon. Examples include but are not limited to metal, paper, plastic, wood, and wire • Extortion, bribery or the solicitation of extortion, bribery, or forgery • Arson • Forgery, falsification, or alteration of any official record or document prepared or maintained by the department which could affect a term of imprisonment • The fermentation or distillation of materials in a manner consistent with the production of or the physical possession of alcohol in an institution • Being under the influence of alcohol or other controlled substance or refusing to provide a urine specimen for the purpose of testing for the presence of controlled substance(s) • Possession of any paraphernalia intended for unlawful injection or consumption of narcotics, drugs, or alcoholic beverages • Inciting a riot or participating in a riot, rout or unlawful assembly • Sexual activity in a visiting room with an adult • Willfully resisting, delaying, or obstructing a peace officer in the performance of a duty • Late return from a temporary community leave • Fighting or assault or battery on a prisoner with no serious injury • Assault of a peace officer by any means not likely to cause great bodily injury • Possession of a cellular telephone or any component including, but not limited to, SIM card, memory storage devices or cellular telephone chargers • Conspiracy to commit any Division "B", "C" or "D" offense
E & F	• Theft, embezzlement, destruction, or damage to another's personal property, state property valued at less than $400 • Consensual participation in sodomy or oral copulation; sexual disorderly conduct • Gambling • Refusal to provide blood or urine specimens, a saliva sample, or palm and thumb print impressions • Commission of any misdemeanor offense not listed in this schedule • Use of marijuana, barbiturates or alcohol based solely on a positive test result from an approved departmental testing method • Misuse, alteration, unauthorized acquisition, or exchange of personal property, state funds, or state property • The fermentation or distillation of materials in a manner consistent with the production of alcohol • Work related offenses: refusal to work or perform assigned duties; continued failure to perform assigned work or participate in a work/training program • Conspiracy to commit any Division "E" or "F" offense.

Note: This table describes the offenses eligible for A-F type rule violations as described in California Code of Regulations Title 15 § 3323.

Table 6.22: Characteristics of Inmates by Facility Security Level

	Mean			Difference	
Variable	Level II	Level III	Level IV	III-II	IV-III
Age	43.512	40.089	35.843	−3.423***	−4.246***
	[11.084]	[12.039]	[10.134]	(0.120)	(0.110)
Sentence Length (years)	11.001	15.581	20.709	4.579***	5.129***
	[10.243]	[23.244]	[21.003]	(0.248)	(0.318)
Time Served (years)	9.168	7.429	8.263	−1.739***	0.835***
	[8.320]	[6.784]	[6.503]	(0.077)	(0.066)
Race/Ethnicity					
Asian	0.012	0.010	0.009	−0.002**	−0.002*
				(0.001)	(0.001)
Black	0.298	0.322	0.364	0.025***	0.042***
				(0.005)	(0.005)
Hispanic	0.357	0.349	0.401	−0.009*	0.052***
				(0.005)	(0.005)
White	0.272	0.260	0.173	−0.013***	−0.086***
				(0.005)	(0.004)
Offense Type					
Violent	0.585	0.626	0.828	0.040***	0.202***
				(0.005)	(0.004)
Property	0.107	0.120	0.070	0.013***	−0.050***
				(0.003)	(0.003)
Drug	0.114	0.098	0.036	−0.017***	−0.061***
				(0.003)	(0.002)
Serious Mental Health	0.019	0.083	0.073	0.063***	−0.010***
				(0.002)	(0.003)
Sensitive Needs Yard	0.224	0.278	0.334	0.054***	0.056***
				(0.004)	(0.005)
Current or Prior Serious or Violent Conviction	0.934	0.949	0.988	0.016***	0.039***
				(0.002)	(0.002)
Sex Offender	0.258	0.226	0.139	−0.033***	−0.086***
				(0.004)	(0.004)
Known Street Gang Member	0.125	0.365	0.612	0.240***	0.247***
				(0.007)	(0.008)
Observations	15,868	22,886	18,775		

Note: Standard deviations of the means in brackets. Standard error of the difference in parentheses. *** p<0.01, ** p<0.05, and * p<0.10

Table 6.23: RD Estimates of the First Stage Relationship Between Preliminary Score and Placement in Facility Security Level

	Bandwidth			
Level	2	4	6	8
Level II	0.029	0.042	0.050**	0.058***
	(0.025)	(0.031)	(0.024)	(0.020)
Level III	0.536***	0.513***	0.522***	0.541***
	(0.019)	(0.027)	(0.020)	(0.016)
Level IV	0.609***	0.606***	0.596***	0.587***
	(0.025)	(0.032)	(0.023)	(0.019)

Note: Standard errors in parentheses. All local linear regressions have been estimated using a triangle kernel with bin width 1. *** p<0.01, ** p<0.05, and * p<0.10

Table 6.24: RD Estimates of the Baseline Covariates for the Level II/III Cutoff

	Bandwidth		
Variable	2	4	8
Age	−0.553	−0.004	0.918
	(1.023)	(1.394)	(0.810)
Sentence Length (years)	−5.033	−5.978	−2.619
	(2.531)	(3.820)	(1.808)
Time Served (years)	−1.589***	−0.776	0.439
	(0.449)	(0.611)	(0.347)
Race/Ethnicity			
Asian	−0.009	−0.007	−0.006
	(0.006)	(0.009)	(0.005)
Black	0.015	0.036	0.017
	(0.041)	(0.054)	(0.032)
Hispanic	−0.002	−0.016	−0.026
	(0.044)	(0.056)	(0.035)
White	0.019	0.014	0.027
	(0.039)	(0.052)	(0.031)
Offense Type			
Violent	−0.116***	−0.057	−0.069
	(0.045)	(0.060)	(0.036)
Property	0.030	0.053	0.039
	(0.030)	(0.040)	(0.024)
Drug	0.061*	0.019	0.009
	(0.033)	(0.043)	(0.026)
Serious Mental Health	−0.030	−0.038	−0.035**
	(0.020)	(0.028)	(0.017)
Sensitive Needs Yard	0.037	0.011	0.044
	(0.040)	(0.053)	(0.031)
Current or Prior Serious or Violent Conviction	0.008	0.029	0.015
	(0.028)	(0.038)	(0.022)
Sex Offender	0.009	−0.010	0.015
	(0.038)	(0.050)	(0.029)
Known Street Gang Member	0.054	0.039	0.053
	(0.042)	(0.057)	(0.035)
Observations	3,520	7,093	13,707

Note: Standard errors in parentheses. RD estimates are from local linear regressions estimated using a triangle kernel and a binwidth of 1. *** p<0.01, ** p<0.05, and * p<0.10

Table 6.25: RD Estimates of the Baseline Covariates for the Level III/IV Cutoff

	Bandwidth				
Variable	2	4	8	16	24
Age	−1.784*	−0.316	−1.935**	−1.535***	−1.510***
	(1.086)	(1.357)	(0.900)	(0.590)	(0.447)
Sentence Length (years)	0.955	1.300	0.259	−0.871	−1.613
	(1.823)	(2.077)	(1.602)	(1.115)	(0.860)
Time Served (years)	−2.927***	−1.962***	−1.224	−0.773	−0.807***
	(0.473)	(0.626)	(0.397)	(0.261)	(0.198)
Race/Ethnicity					
Asian	−0.019**	−0.024**	−0.016**	−0.007	−0.005
	(0.008)	(0.012)	(0.008)	(0.005)	(0.004)
Black	−0.065	−0.054	−0.043	−0.036	−0.027
	(0.049)	(0.063)	(0.040)	(0.026)	(0.020)
Hispanic	0.540	0.058	0.079**	0.070***	0.052**
	(0.050)	(0.063)	(0.041)	(0.027)	(0.020)
White	0.053	−0.052	−0.011	−0.014	−0.015
	(0.041)	(0.051)	(0.033)	(0.021)	(0.016)
Offense Type					
Violent	−0.065	−0.100*	−0.004	0.013	0.016
	(0.045)	(0.057)	(0.037)	(0.024)	(0.018)
Property	−0.009	−0.006	−0.037	−0.037**	−0.030**
	(0.031)	(0.039)	(0.025)	(0.016)	(0.012)
Drug	−0.020	−0.022	0.001	0.000	0.005
	(0.022)	(0.028)	(0.018)	(0.012)	(0.009)
Serious Mental Health	−0.038	−0.041	−0.029	−0.024	−0.026**
	(0.027)	(0.036)	(0.022)	(0.014)	(0.011)
Sensitive Needs Yard	0.074	0.083	0.056	0.046	0.025
	(0.048)	(0.060)	(0.039)	(0.026)	(0.020)
Current or Prior Serious	0.012	0.007	0.007	0.003	−0.008
or Violent Conviction	(0.015)	(0.020)	(0.013)	(0.008)	(0.006)
Sex Offender	0.075	0.103**	0.013	0.005	−0.011
	(0.040)	(0.050)	(0.033)	(0.022)	(0.016)
Known Street Gang Member	0.076*	0.150	0.144	0.054	0.030
	(0.079)	(0.118)	(0.066)	(0.039)	(0.029)
Observations	2,121	4,221	8,512	16,642	25,309

Note: Standard errors in parentheses. RD estimates are from local linear regressions estimated using a triangle kernel and a binwidth of 1. *** p<0.01, ** p<0.05, and * p<0.10

Table 6.26: RD Estimates Under Varying Bandwidths for the Level II/III Cutoff

	Local Linear				Local Polynomial			
Variable	2	4	6	8	2	4	6	8
Any RVR	−0.081**	−0.094*	−0.088**	−0.080**	−0.121*	−0.107*	−0.108**	−0.088**
	(0.039)	(0.053)	(0.039)	(0.032)	(0.066)	(0.060)	(0.046)	(0.038)
A1 or A2	−0.009	−0.007	−0.003	0.001	−0.021	−0.018	−0.009	−0.001
	(0.009)	(0.013)	(0.010)	(0.008)	(0.017)	(0.016)	(0.012)	(0.010)
B, C, or D	−0.002	0.000	−0.022	−0.022	0.009	0.012	−0.038	−0.028
	(0.028)	(0.037)	(0.027)	(0.022)	(0.045)	(0.042)	(0.033)	(0.027)
E or F	−0.082**	−0.105**	−0.079**	−0.070**	−0.123**	−0.123**	−0.081**	−0.073**
	(0.035)	(0.047)	(0.034)	(0.028)	(0.058)	(0.052)	(0.040)	(0.033)
Observations	3,520	7,093	10,483	13,707	3,460	6,979	10,315	13,490

Note: Standard errors in parentheses. All local linear regressions have been estimated using a triangle kernel and binwidth of 1. Local polynomial regressions were estimated using 2SLS model using preliminary score as an instrument for placement in Level III, a rectangle kernel and include up to a 3rd order polynomial with the exception of bandwidth=2 which was estimated using only the quadratic. *** p<0.01, ** p<0.05, and* p<0.10

Table 6.27: RD Estimates Under Varying Bandwidths for the Level III/IV Cutoff

	Bandwidth				
Variable	2	4	6	8	24
Any RVR	−0.034	−0.027	−0.012	−0.0141	0.053***
	(0.045)	(0.058)	(0.044)	(0.037)	(0.019)
A1 or A2	−0.006	−0.009	−0.005	−0.006	0.003
	(0.014)	(0.018)	(0.014)	(0.012)	(0.006)
B, C, D	−0.055	−0.070	−0.040	−0.029	0.007
	(0.035)	(0.046)	(0.034)	(0.029)	(0.015)
E, F	0.013	0.028	0.008	−0.003	0.032**
	(0.037)	(0.046)	(0.035)	(0.030)	(0.015)
Observations	2,121	4,221	6,373	8,512	25,309

Note: Standard errors in parentheses. All local linear regressions have been estimated using a triangle kernel with bin width 1. *** p<0.01, ** p<0.05, and * p<0.10

Table 6.28: RD Estimates at Varying Bandwidths for False Cutoff Values

False Cutoff	Bandwidth 2	3	4
Panel A: Any RVR			
22	−0.863	···	···
	(0.883)		
	[4,595]		
23	0.067	−0.427	···
	(0.466)	(0.649)	
	[2,603]	[6,463]	
24	−0.051	−0.018	0.139
	(0.290)	(0.342)	(0.416)
	[4,669]	[4,499]	[8,222]
25	0.167	0.067	···
	(0.240)	(0.233)	
	[4,563]	[6,428]	
26	−0.031	···	···
	(0.813)		
	[4,639]		
Panel B: E or F RVR			
22	−0.711	···	···
	(0.749)		
	[4,595]		
23	−0.157	−0.434	···
	(0.403)	(0.581)	
	[2,603]	[6,463]	
24	−0.287	−0.241	−0.131
	(0.264)	(0.303)	(0.355)
	[4,669]	[4,499]	[8,222]
25	−0.143	−0.225	···
	(0.204)	(0.208)	
	[4,563]	[6,428]	
26	−0.380	···	···
	(0.743)		
	[4,639]		

Note: Standard errors in parentheses. Number of observations in brackets. RD estimates are from local linear regressions estimated using a triangle kernel and a binwidth of 1. *** p<0.01, ** p<0.05, and * p<0.10