Intended and Unintended Consequences of Prison Reform*

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June 2011

The United States Supreme Court ruled in May 2011 that prison overcrowding in California constituted cruel and unusual punishment, and ordered California to reduce its prison population by 46,000. This decision revived a long-standing debate among scholars and policy makers as to whether courts should intervene to protect the well-being of the disfranchised, by forcing states to improve schools, prisons and mental institutions. We use data that span 1951 to 2006 to examine the impact of federal court orders condemning prison crowding, and the impact of states' releases from these court orders. We find that these interventions are associated with lower inmate mortality rates and fewer prisoners per capita. Correctional expenditures increase and welfare cash expenditures decrease while states are under court order, suggesting that the burden of improved prison conditions is borne by welfare recipients. Further, states do not alter correctional spending and welfare cash payments spending after their release from court order, making the original changes in spending permanent.

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†We would like to thank Duha Altindag for excellent research assistance. Jonah Rockoff, Francesco Drago, Christian Traxler, JJ Prescott and seminar participants at Rice University, the 2009 NBER Summer Institute, the First Bonn & Paris Workshop on Law and Economics, the 2009 Conference on Empirical Legal Studies, the 2010 American Economic Association Meetings in Atlanta, the 2010 American Law and Economics Association Meetings in Princeton, the first Annual Conference of the Spanish Association of Law and Economics in Madrid, and the 2010 Conference of the Association for Public Economic Theory in Istanbul provided valuable comments.

1 Introduction

Courts can be influential in protecting the well-being of the disfranchised segments of the population by forcing states to improve schools, prisons and mental institutions. A recent example is the May 2011 decision of the Supreme Court which declared that prison overcrowding in California constituted cruel and unusual punishment, and ordered California to reduce its prison population by 46,000 inmates. The division among the Supreme Court justices on this case is indicative of the disagreement over the merits of court intervention in state institutions. For example, while court interventions have been criticized as undemocratic (Sandler and Schoenbrod, 2004), others have argued that the disadvantaged should receive judicial help to balance out their lack of influence in the state political process (Rose-Ackerman, 2003).

While there exists evidence showing that judicial intervention has reduced inequality in education spending (Murray, Evans & Schwab, 1998; Card and Payne, 2002; Baicker and Gordon, 2006), there is also evidence underlining the limitations in the ability of the courts to influence resource re-allocation in education spending. For example, Wood and Theobald (2003) find that judicial mandates that target equity in funding between school districts are successful only if the political and social values of the citizens are aligned with the intent of the court order.[1]

Similarly, it is unclear whether courts have improved prison conditions (Harriman and Straussman, 1983; Taggart, 1989; and Fliter, 1996).[2] This is not surprising as the judicial process is expected to be ineffective in reforming prisons and mental hospitals, because most *state* judges are elected for short terms. As a result, they are

[1]They summarize this finding by writing that "In the words of Alexander Hamilton, courts lack control of either the 'sword or the purse,' and are limited in their ability to affect significant social change."

[2]However, there is evidence indicating that court orders reduced prison population growth (Levitt, 1996).

expected to put less weight on the welfare of individuals who are not allowed to vote (such as prisoners and individuals who are deemed incompetent to vote). Federal judges are appointed for life and thus can force massive prison releases without facing negative personal consequences. The political insulation of federal judges can explain the recent court order to release inmates from California state prisons (Brown v. Plata, 563 U.S. __, 2011).

However, any increase in state spending needs the approval of the state legislature. Consequently, federal judges can increase state spending only through suasion. For instance, in response to recent court orders, the California Assembly passed a bill to build additional facilities but did not allocate any additional funds.[3] Thus, we expect courts to be most effective in increasing state spending when the disfranchised have greater support from voters, elected officials, the federal bureaucracy, or interest groups (Schlanger, 1999; Wood and Theobald, 2003). Specifically, judicial intervention is expected to have been effective in the 1970s when prison rights were supported by the NAACP, the Legal Services Corporation, the U.S. Department of Justice, and the National Prison Project (Schlanger, 1999; Schlanger, 2006). The extent of such support has declined since the late 1970s.[4] Therefore, we expect courts to have been less effective in increasing prison spending since the late 1970s.

When courts are effective in increasing spending on prisoners, the legislature has to increase taxes or cut spending in other programs, given states' balanced budget requirements. The limited number of studies that analyzed states' responses to court

[3]Similarly, the Supreme Court of Alabama held that school funding violated the rights of school aged children, but that it was powerless to fashion a remedy because of the separation of powers clause of the Alabama constitution (Roth, 2003).

[4]The NAACP ended its involvement in prison litigation in 1977, the Legal Services Corporation cut back on prison litigation during the Reagan years, the Justice Department stopped initiation of new prisoner conditions lawsuits during the Reagan administration, and foundation support for the National Prison Project was cut in the 1990s.

decrees suggest that legislatures cut welfare spending to finance mandated increases in Medicaid and education spending (Baicker, 2001; Baicker and Gordon, 2006). Thus, we expect any increase spending on prisons to come at the expense of welfare spending. In the California prison litigation case, the courts became aware of these tradeoffs. The panel of judges decreed that (*Plata v. Schwarzenegger*, No. CIV S-90-0520 LKK JFM P, 2009 WL 2430820, E.D. Cal. Aug. 4, 2009):

> During the pendency of this proceeding, the outlook for California's prisons has only grown dimmer. The state is now in the throes of a fiscal crisis that renders it unable or unwilling to commit the necessary resources to fix the problems in its prisons. [...] California has reduced spending on education, health care, the social safety net, and services for the needy, the blind, and children to the breaking point. Under these circumstances, we would be reluctant to direct the state to allocate additional funds to its prisons or to rehabilitative services at the expense of others to whom it has a legal and moral obligation.

In this paper, we examine the impact of federal court orders to improve prison conditions. Since 1970, federal court interventions have affected such dimensions of prison operations as staffing, the amount of space per inmate, medical and mental health care, food, hygiene, sanitation, disciplinary procedures, conditions in disciplinary segregation, exercise, fire safety, inmate classification, grievance policies, race discrimination, sex discrimination, religious discrimination and accommodations, and disability discrimination and accommodations (Schlanger, 2006). In 1995, state attorneys general successfully lobbied Congress to pass the Prison Litigation Reform Act (PLRA) so that they could regain control over prisons (Wharton, 1996). The PLRA ended federal court supervision over several state correctional systems and made any fur-

ther court intervention more difficult (Schlanger, 2006). Sullivan (2000) reports the deterioration of Tennessee prisons after their release from federal court supervision.[5] Nonetheless, courts still order states to increase state correctional expenditures or reduce prison population, the most recent example being the case of the California prison system which went all the way to the Supreme Court as mentioned earlier.

We find that following federal court orders, prison conditions improved, prison costs per inmate increased. Federal court orders to improve prison conditions are expected to reduce the deterrent effect of imprisonment,[6] and some research suggests that outlays on social welfare and education could be substitutes for corrections in combating crime.[7] Thus, if states seek to deter crime, an increase in state spending on social welfare and/or education following federal court intervention could be a vehicle (albeit a long-run vehicle) through which this goal can be achieved.

However, our results show that the court orders, which are associated with an increase in correctional spending, did not alter education spending, but generated a decrease in welfare cash assistance. Thus, our results indicate that federal courts can increase state expenditures but that the resources used to finance these additional expenditures come from other disadvantaged groups. We also find that states do not

[5]Specifically, Wharton (1996) underlines the decrease in the correctional staff and increase in the number of violations of regulations governing mental health, fire safety, occupational safety, and hazardous materials.

[6]This is because, we find evidence in this paper that court intervention reduces prison deaths, and Katz et al. (2003) show that a reduction in prison death rates leads to higher crime rates. Thus, an improvement in prison conditions through court intervention implies a reduction in deterrence. Furthermore, we document in this paper that court orders reduce per capita prisoners in the state. Levitt (1996) shows that court orders impact the growth of prison population, which in turn influences the crime rate.Thus, the reduction in prison population due to court intervention is another avenue through which the court interventions may have reduced deterrence.

[7]For instance, Donohue and Siegelman (1998) argue for the effectiveness of preschool and early childhood education, family-based therapy, and job training as a crime control device. Corman and Mocan (2000, 2005), Mocan and Bali (2010), Gould et al. (2002) and Lin (2008) provide evidence that local unemployment, wages and poverty have an impact on criminal activity, implying that education and training help combat crime. Lochner and Morettti (2004) demonstrate the impact of education on criminal activity.

increase their welfare cash expenditures after having been released from the court order, making the original change in welfare spending permanent.

Section 2 discusses prison litigation. Section 3 describes the data. Section 4 explains our empirical methodology and Section 5 presents the results and the robustness analysis. Section 6 is the conclusion.

2 Background and prior research

Prior to the 1960s federal and state courts almost invariably refused to hear cases regarding prison conditions (Bleich 1989; Schlanger 1999). In 1963, the Supreme Court held that inmates could employ the writ of *habeas corpus* to contest their conditions of incarceration.[8] During the mid to late 1960s, courts intervened on narrow issues. For instance, the courts prohibited guards from using two torture devices on prisoners (the crank telephone and the teeter board) and "the application of any whipping to the bare skin of prisoners."[9] In the 1970s, the federal courts took a much more activist stand. The prison systems in several states were ruled unconstitutional, and the courts enacted sweeping remedies based on the totality of prison conditions. Federal court intervention narrowed in scope in the 1980s. As described by Fliter (1996) and Schlanger (2006), this could be because the lawsuits in the 1970s made states more aware of legal liabilities, and many states created dispute resolution mechanisms to address grievances; and it could also be due the appointment of conservative judges to the federal bench by Republican administrations (Schlanger, 2006; Epstein et al., 2007). Finally, in 1995 Congress passed the Prison Litigation Reform Act which made existing court orders harder to sustain and new ones harder to obtain (Piehl and Schlanger 2004; Schlanger, 2006).

[8] *Jones v. Cunningham*, 371 U.S. 236 (1963).

[9] *Jackson v. Bishop*, E.D. Ark., 268 F. Supp. 804 (1967).

Three previous studies have examined the impact of court orders on prison conditions. Harriman and Straussman (1983), Taggart (1989) and Fliter (1996) provide contradictory evidence on whether court orders have influenced state spending on correctional facilities. These studies limited their analyzes to total corrections expenditures and thus did not examine the impact of federal intervention on the number of state prisoners, corrections expenditures per prisoner, or corrections expenditures per capita. Further, these earlier studies did not employ panel data, and instead examined corrections expenditures one state at the time, for the states in which the federal courts intervened. Thus, the observed increase in corrections expenditures in the litigated states may have been caused by overall national trends in corrections expenditures. In contrast, Levitt (1996) examined a panel of all states for the years 1972 through 1993 and court orders that span the years 1971 through 1992. He reported that prison litigation had a short-run effect on the growth rate of prison population.

3 Data

Following Levitt (1996), we consider a state under court order if all correctional facilities of the state came under court order. Unlike Levitt, we restrict ourselves to federal court orders since we are interested in whether federal courts can improve state institutions. The Eleventh Amendment does not limit state courts and the ability of state courts to improve state institutions has already been established by Murray, Evans and Schwab (1998).

The "Litigated States" in our analysis, the date in which the state's correctional system came under court order, and the date of release are displayed in Table 1. We used the information at the Civil Rights Litigation Clearinghouse to reconcile the small discrepancies in year and litigated status among the prior studies (Taggart,

1989; Fliter, 1996; Levitt, 1996).[10] In Section 5.2 we report that our main results hold when we employ the states and dates in Levitt (1996).

We investigate the impact of court orders on prison spending, prison mortality, welfare expenditures, education expenditures, transportation expenditures, other state expenditures as well as local jail expenditures. This last variable is employed to investigate the extent to which states shift prisoners to jails to comply with the court orders.[11]

We define two welfare expenditure variables. The first one, "cash," measures cash assistance to individuals. It includes all state expenditures on cash programs as well as AFDC/TANF and assistance programs not under federal categorical programs (e.g., general assistance, refugee assistance, home relief, and emergency relief). The second variable, "welfare − cash," includes medical vendor payment benefits to individuals through Medicaid, state children's health insurance program (SCHIP), administration of medical and cash assistance, general relief, vendor, nursing homes and welfare institutions owned and operated by a government. Thus the welfare expenditure measures include the amount contributed by the state and federal matches.

Because we are interested in the effect of court intervention on yearly cost of incarceration, we examine corrections operating expenditures.[12] We also analyze the reaction of corrections capital outlays to court orders. Data for state financial

[10] `http://clearinghouse.wustl.edu`. The correct data for when the state Alabama was released from court order is obtained from "U.S. Relinquishes Alabama Prisons; Dismissing 17-Year Lawsuit," *New York Times*, January 15, 1989, p. 17.

[11] We refer to 'prison' or 'corrections' as places of confinement of persons held in custody by the state government. We refer to 'jails' as places of confinement of persons held in custody by the local government.

[12] In 1992, more than three-quarters of the operating expenditures went to labor compensation (salaries, wages, and benefits), while the rest was devoted to the purchase of supplies, contract services, and the like. (Alexis M. Herman and Katharine G. Abraham, Measuring State and Local Government Labor Productivity: Examples from Eleven Services, U.S. Department of Labor, June 1998.)

variables are obtained from U.S. Census Bureau, *Annual Survey of State Government Finances and Census of Governments*. All financial variables are converted in real (2007) dollars using the consumer price index.

We follow Katz, Levitt, and Shustorovich (2003) in using prison deaths as a proxy for prison conditions. Courts have used prison deaths as a proxy for prison conditions as recently as the May 2011 Supreme Court decision on prison conditions in California.[13] The prison mortality rate is computed as prison deaths per 1,000 state prisoners. Because of data limitations, the prison mortality is not adjusted for age, gender, or race of prisoners. Data on prison population and prison deaths are obtained from Donohue and Wolfers (2005), and updated using data from the Bureau of Justice Statistics.[14]

We also control for real income per capita, state unemployment rate, percentage of the state population that is black, percentage of the state population residing in urban areas, and variables gauging the age distribution in the state. Income per capita data are obtained from the Bureau of Economic Analysis. The unemployment rate is defined as the insured unemployment rate.[15] The state-and-year specific age and race distribution is calculated using information from the Center for Disease Control and the Bureau of the Census. The proportion of state population residing in urban areas is calculated using census data.

Table 2 presents summary statistics for the years. Most dependent variables cover the period 1951 through 2006. The average real spending is about $31,000 per prisoner for operating expenditures and about $4,250 for capital expenditures. Average

[13]Brown v. Plata, 563 U.S. __, 2011.

[14]The data can be downloaded at `http://bpp.wharton.upenn.edu/jwolfers/DeathPenalty.shtml`.

[15]The data for the years 1960-2000 are obtained from Donohue and Wolfers (2005). The values for 2001-2006 are calculated using state-specific weekly unemployment insurance claims information obtained from the U.S. Department of Labor.

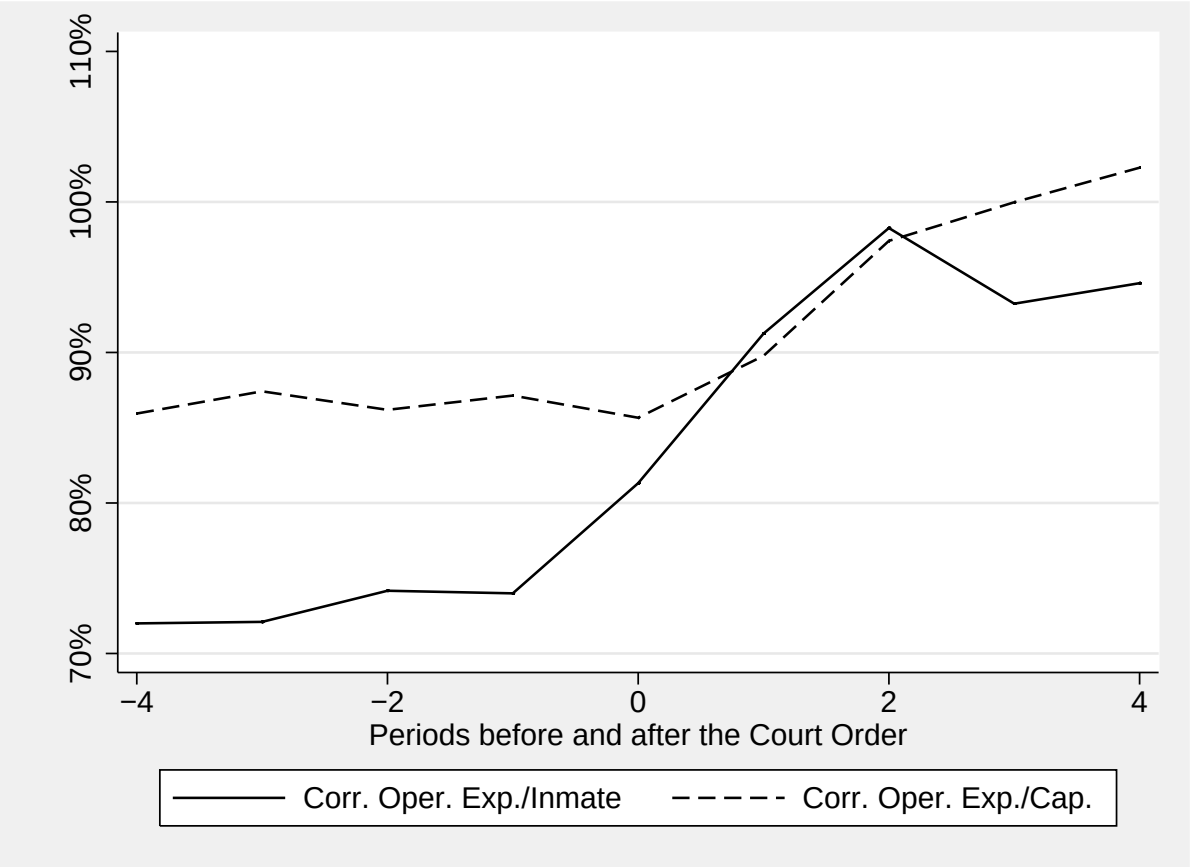
inmate-population ratio is about 2 per 1,000 residents, and average prison death rate is about 3 deaths per 1,000 inmates, which translates into 27 deaths per year for the average state.

4 Empirical methodology

In Figure 1 we display the ratio of corrections expenditures in litigated states to corrections expenditures in non-litigated states. To account for differences in wealth among states, expenditures are normalized by state income per capita, and they are deflated by the number of inmates and by the state population. The behavior of this ratio as a function of the timing of the court order is informative. The horizontal axis displays the time periods (in years) relative to the year in which the court order was issued to the litigated state. For example, four years prior to the court order, litigated states spent about 72% per inmate of what was spent by the non-litigated states. When the time period is zero (the year in which the court order was issued) the ratio jumps to about 87%; it reaches 102% two years after the court order and levels off. Thus, Figure 1 suggests that court intervention leads to higher corrections expenditures per inmate.

An ideal strategy to identify the impact of the court orders, however, would involve randomly assigning court orders to states and observing the differences in outcomes between states that received these court orders and states that did not. In fact, the eight out of twelve litigated states are in the south and thus the assignment of court orders is far from random. In the absence of such an experiment, we follow Angrist and Lavy (2001), Ashenfelter and Card (1985), and Freeman (1984) in assuming that while there are differences between states which received and did not receive court orders, these differences are fixed over time (after controlling for income per capita).

Figure 1: Corrections Operating Expenditures in Litigated States as a Percentage of Corrections Operating Expenditures in Non-Litigated States (all expenditures are normalized by income per capita)



Furthermore, the courts do not react to short-term variations in prison conditions when imposing the court orders. Specifically, court orders are not issued in reaction to transitory deteriorations in prison conditions; rather prison litigation and court orders emerge in reaction to prison conditions that would remain dire if it were not for court intervention. The graph in Figure 1 supports this statement. There is *no drop* in per inmate corrections spending in litigated states relative to non-litigated states before a court order was issued.[16] Levitt (1996) provides evidence that states

[16]Put differently, there is no indication of an "Ashenfelter dip."

start responding to prison litigation before the court decision, specifically they start responding when the lawsuit is filed. The evidence in Figure 1 is consistent with this hypothesis, as corrections operating expenses per inmate increase slightly before the court order is imposed. Thus the difference in corrections expenditures per inmate before and after the court order may somewhat underestimate the effect of the court intervention.[17]

In this spirit, we utilize a difference-in-difference methodology to examine how states react to court intervention. In particular, we investigate the impact of court intervention on various outcomes described earlier by estimating reduced-form regressions depicted by Equation (1):

$$Y_{it} = \alpha_i + \beta_{it} + \theta_t + \gamma X_{it} + \eta\,\text{CourtOrder}_{it} + \delta\,\text{CourtOrder}_{it} \times \text{Post}_{80} + \varepsilon_{it}, \qquad (1)$$

where the dependent variable Y_{it} stands for corrections expenditures (operating, or capital outlays) per prisoner, the death rate for prisoners, and prisoners per capita. These dependent variables are employed to investigate the impact of court orders on corrections expenditures and prison conditions. To analyze the extent to which states shift prisoners from state correctional facilities to local jails in reaction to federal court orders, we employ per capita local jail expenditures as an additional dependent variable. Other dependent variables include per capita state revenues, per capita expenditures on corrections, per capita state cash assistance payments, per capita expenditures welfare minus cash assistance, per capita expenditures on education,

[17]Note that corrections operating expenditures *per capita* in litigated states (the dashed line in Figure 1) remain steady in comparison to non-litigated states until one year after the court order (period 1 on the horizontal axis), while corrections operating expenditures *per inmate* rise sharply in the year in which the court order is handed out (period zero on the horizontal axis). This picture is consistent with the empirical result we report below, which shows that prisoners per capita in the state declines in reaction to a court order. It seems to indicate that the immediate reaction of the state to a court order is to adjust the prison population, while a budget increase in corrections spending takes a year to implement, possibly because of the fiscal cycle of the state.

per capita transportation expenditures, and per capita expenditures on other items (such as administrative expenditures). These individual expenditure items exhaust total state revenue.

The vector X_{it} contains observable state characteristics as described in the data section above; α_i stands for unobserved state characteristic and θ_t represents year effects. The models also contain state-specific quadratic time trends, represented by β_{it}. "CourtOrder$_{it}$" is an indicator variable which takes the value of one if state i is under the court order in time t, and zero otherwise. "CourtOrder" can take the value of one only in litigated states, but there is variation in exposure to the "treatment" by a court order among litigated states; that is, in some states the court order remained effective for longer periods than others. For example, we see in Table 1 that the duration of a court order was from 1975 to 1997 in Louisiana, but it was from 1970 to 1982 in Arkansas. We create a dummy variable which is equal to one in and after 1980 (Post_{80}).[18] We interact this dummy variable with CourtOrder to account for the potentially different impact of court orders after 1980. We expect $\text{Post}_{80} \times \text{CourtOrder}$ to decrease corrections expenditures based on the hypothesis that court orders had a smaller effect after the 1980s because of the ebb in support for prison litigation (Achlanger 1999; Schlanger, 2006).[19] In Section 5.2 we discuss the results obtained from different models for the impact of court orders,different subsets of data sets, and different control variables.

While the model depicted by Equation (1) analyzes the impact of a court order

[18]This variable takes the value of one in and after 1980 in every state (regardless of the existence or timing or a court order).

[19]For instance the federal judiciary grew increasingly conservative during the Reagan and Bush years, the NAACP ended its involvement in prison litigation in 1977, legal services offices lost substantial funding during the Reagan years and cut back on their jail dockets, the Justice Department stopped initiation of new prisoner conditions lawsuits during the Reagan administration, foundation support for the National Prison Project was cut in the 1990s.

on the outcomes of interest, a question of independent interest is the impact of a release from a court order. For example, while it is important to investigate whether the imposition of a court order increases prison spending and decreases spending on welfare programs, it is equally important to analyze if the effect of a release from court order is symmetric. More specifically, Equation (2) below is used to investigate the impact of a release, conditional on being under a court order:

$$Y_{it} = \kappa_i + \pi_{it} + \tau_t + \lambda X_{it} + \mu \, \text{Release}_{it} + \omega_{it}, \tag{2}$$

where Release is a dichotomous variable which takes the value of one in the year during which the state was released from court order as well as in all years afterwards until the end of the sample. Thus, the variable Release captures the "treatment period" for the state, in which the "treatment" is the release from a court order.[20]

Equation (2) is estimated in the sample of litigated states and in the years following the initiation of a court order. More precisely, this sample includes all state-years after a state came under the court order.[21] For example, Table 1 shows that Alabama came under court order in 1975. Therefore, the sample includes the observations from Alabama in years 1975 and later. The same argument applies to the other states listed in Table 1. Thus, Equation (2) investigates whether the release from the court order had an impact on outcomes (conditional on being under the court order). Most models are estimated in the sample that spans 1951–2006.

[20] In a different vein, Lutz (2011) analyzes the impact on school districts of being dismissed from court-ordered desegregation plans.

[21] This specification does not include an interaction term with Post_{80} because no state was released from a court order prior to 1980.

5 Results

5.1 Main specifications

Tables 3–A and 3–B display the results obtained by estimating Equation (1). The variables are in logarithms. Robust standard errors are clustered at the state level. The result reported in Column (1) of Table 3–A indicates that, following court intervention, corrections operating expenditures per prisoner increase by about 27%.[22] Column (2) displays the results obtained from the model where the dependent variable is correctional capital outlays per prisoner. The estimated coefficient of CourtOrder indicates that being under the court order generates an increase in per inmate correctional capital outlays by 200% following the court intervention.

These estimates imply that corrections operating and capital expenditures go up by $175 million for an average state. Court orders decrease the prison death rate by 20% as shown in column (3), which translates into about 6 fewer deaths per year for an average state. The result in column (4) indicates that court orders generate a 12% decline in prisoners per capita.

The coefficient of CourtOrder $\times$ Post_{80} (δ) is of the opposite sign of CourtOrder (η) in all regressions with the exception of jail expenditures. We cannot reject the hypothesis that the sum of η and δ is zero in case of corrections capital expenditures and inmates per capita. This result suggests that while court orders increased capital expenditures and reduced prison population prior to 1980, court orders had no significant impact on these outcomes after 1980.[23] In column (1), the sum of η and δ is negative and significantly different from zero (p=0.02), indicating that court orders had a smaller but still statistically significant impact on corrections operating

[22]The percentage impact is calculated as $\exp\{\beta - \frac{1}{2} \times Var(\beta)\} - 1$, see Kennedy (1981).

[23]As explained in Section 5.2 below, considering the time period of Post-1981 or Post-1985 generated the same results as the ones obtained from the one that includes Post-1980.

expenditures per inmate after 1980. These findings are consistent with the hypothesis that post-1980, court orders narrowed in scope (Fliter, 1996; Schlanger, 2006).

A potential reaction of states to court orders could be to shift the prison population to local jails. Columns (5) of Table 3–A displays the results where per capita jail expenditures is used as dependent variable. There is no statistically significant impact of "CourtOrder," indicating that jail expenditures do not change in reaction to court orders. We also used as dependent variables the number of jail inmates and the number of state prisoners held in local jails because of overcrowding (both measured per capita and in logs). Again, we find no statistically significant impact of "CourtOrder" on these variables, thus indicating that court orders do not lead to a shift of inmates from prisons to jails.

Given that court orders decrease prison population and improve prison conditions, as revealed by a decline in prison deaths and prison population, court orders effectively reduce deterrence.[24] As described in the introduction, welfare spending may be a tool for short-term crime prevention as a substitute for other deterrence measures such as imprisonment and prison conditions. Spending on education is another potential but longer-term vehicle through which crime commission can be influenced. Such an increase in welfare and/or education spending would dictate an increase in total state revenue. On the other hand, the increase in correction spending following the court order could prompt a re-allocation of expenditures between various spending categories. The results presented in Table 3–B allow us to investigate the extent to which states re-allocate resources following the court orders.

In Table 3–B per capita state revenues (in column 1) and various spending categories of the state (columns 2–7) are the dependent variables. These spending cat-

[24]In fact, Levitt (1996) has shown that the decrease in prison population due to court orders had a significant impact on state crime rates.

egories exhaust total state expenditures. Column (1) of Table 3–B indicates that court orders have no impact on per capita state revenue. Consistent with earlier results, column (2) shows that court orders increase per capita correctional spending by 24%. In column (3) the coefficient of CourtOrder is negative and statistically significant, indicating the unintended consequence of increasing correctional spending: court orders generate about a 22% reduction in per capita cash assistance. Columns (4) through (7) demonstrate that court orders have no impact on welfare − cash spending, education spending, transportation spending, or other state spending.

Taken together, the results displayed in Tables 3–A and 3–B demonstrate that court orders improved prison conditions, and they increased the cost of providing correctional services. Since state revenue did not change, states maintained a balanced budget by decreasing cash welfare spending. During our period of study (1951 through 2006) there were numerous changes in the federal rules that determine cash payments. Thus, one may be concerned that our results are driven by correlation between prison litigation and changes in federal welfare rules. Our estimated dollar decrease in cash payments is larger than the dollar increase in corrections expenditures. However, the difference between the decrease in cash payments and corrections expenditures is not statistically significant. Further, a larger response in cash payments is fully consistent with 1 to 1 reallocation of funds from cash payments to corrections. The reason for this is that the census measure of AFDC/TANF includes expenditures financed by both the state and the federal government. Further, under AFDC, the federal government matched state expenditures. Thus, a $1 transfer in state resources from AFDC towards corrections could lead to a $1.80 decrease in AFDC expenditures. In general, the hypothesis that our results are driven by a correlation between prison litigation and federal welfare rules is unlikely given that our results are robust over a

large number of specifications.

To investigate the sensitivity of our results to model specification, we estimate the models without control variables. The results, reported in Tables 4–A and 4–B indicate that neither the statistical significance nor the point estimate change appreciably when drop the control variables. As a further check of the validity of the identification strategy, we investigate the impact of exposure to court orders on different facets of the criminal justice system; police spending and jail spending. Specifically, we examine the impact of court orders on the *difference* between state correctional operating expenditures and (i) police expenditures and (ii) jail expenditures. If corrections expenditures and other criminal justice expenditures *move in tandem* in states that are exposed to court orders *as well as* in states that are not under the court order, this would imply that some unobserved factors confound the impact of court orders on corrections spending. Put differently, if federal intervention has an effect, the difference between corrections expenditures and other criminal justice expenditures are expected to get larger in states that are exposed to court orders. Thus, the difference-in-difference-in-differences estimates allow us to control for unobserved factors that are not accounted for by state fixed effects, year fixed effects, state specific time trends.

Table 5 displays the results of four specifications. In columns (1) and (2) the dependent variables are the difference between per inmate (or per capita) corrections operating expenditures and per capita police spending. In column (3) the dependent variable is the difference between corrections operating expenditures per inmate and jail expenditures per jail inmate. In column (4) we report the results of the specification where the dependent variable is the difference between per capita corrections operating expenditures and per capita jail expenditures. The coefficient of

CourtOrder is positive and statistically significant in all cases, indicating that the wedge between corrections operating expenditures and other correctional expenditures increased in states that were exposed to court orders in comparison to those states that were not.

To investigate the impact of having been released from a court order, we estimated models depicted by Equation (2). Tables 6–A and 6–B display the results. The sample sizes are smaller in these specifications because they analyze the impact of having been released from the court order, given that a court order was imposed. Because we have only 12 states that contribute to this identification, clustered robust standard errors underestimate standard errors. Thus, we follow Cameron, Gelbach and Miller (2008) and provide bootstrapped p-values for the variable Release [in brackets]. Regardless of whether we compute p-value using limiting p–values or bootstrap, correction and cash payments spending do not change when states are released from court order. Thus, the budget cuts that are associated with cash payment programs following the court order are not restored after the state's release from court order. Similarly, states do not alter per inmate corrections spending when the court order is lifted, and prison deaths per inmate and inmates per capita do not change when states are released from the court order.

5.2 Robustness

To investigate the robustness of the results, we performed a number of analyses. First, we investigated whether the results were sensitive to the omission of Alaska and Hawaii. Alaska receives its tax revenues from oil, which is a highly variable revenue source. Hawaii is also unusual as a large percentage of its revenues comes from tourism. However, omitting these states did not alter the results. Second, we included in the models an indicator variable that identified the states that were sued

in state courts for education spending. Controlling for this effect did not alter the estimated coefficients or their statistical significance. Third, the results remained intact when we added to the models percent Democrats in state house and senate. Including the poverty rate as a regressor did not alter the results either. Fourth, we investigated whether the decrease in cash welfare following prison court orders is caused by changes in AFDC matching rates. Including the log of the AFDC matching rate as an additional regressor did not change the results.[25] Similarly, adding dummy variables for the post-1996 period, or for the periods of 1992-96 and post-1996 to adjust for the time period of the welfare reform did not influence the results. Fifth, we estimated the prison death equation using the level of (deaths per inmates) as the dependent variable, rather than its logarithm. About four percent of the sample contained zeros for this variable. Estimating the prison death rate regression in levels did not alter the results. The coefficient of CourtOrder was estimated as -0.75 (p=0.054), indicating that a court order reduces the prison death rate by 0.75 per 1,000 inmates, which implies a reduction of about 8 deaths for an average state, which is similar to the results obtained from the model with logarithms.

We tested the sensitivity of the results by dropping each state from the sample one at a time, and re-estimating the models. The results did not change. We also re-estimated the models using the Southern states only. More specifically, we retained the southern states that have come under the court order (see table 1), and added to this group other southern states that were not subject to federal court intervention: Georgia, North Carolina, Kentucky, Virginia and West Virginia. Estimating the models using this Southern sample of of 12 states generated the same results, but the coefficients of capital expenditures and prison deaths became insignificant.

[25]Similarly, including the log of the Medicaid matching rates does not change the results for non-cash welfare spending.

We also estimated the models depicted by equation (1) by replacing the dummy variable Post_{80} with $Post_{81}$ where $Post_{81}$ takes the value of one in the year of 1981 or later. This specification investigates whether court orders had a different impact after 1981. The results were almost identical to the ones presented in the paper. When we replaced this variable with $Post_{85}$, where $Post_{85}$ takes the value of one in 1985 or later, the results were very similar to those reported in Tables 3–A and 3–B (the only difference is that the impact of court order on prison deaths became statistically insignificant). Finally, when we used the final court decision dates listed in Levitt (1996), we obtained coefficients that were very similar both in magnitude and statistical significance. The only difference was that the coefficients of prison deaths and prison population became insignificant.

The impact of the court order may be changing over the duration of the court order. For example, the impact on prison conditions may be stronger during the first few years after the federal court issues the order, and it may die out over time. To investigate this possibility we created 5 dummy variables that identify the five time segments over the course of a court order. Specifically, the first variable takes the value of 1 during the first five years of the court order and zero elsewhere. The second variable is equal to 1 during the 6th, 7th, 8th, 9th and 10th years of the court order; and the fifth dichotomous variable is equal to 1 during the years of 21 and higher.[26] The results obtained from this specification are presented in Tables 7–A and 7–B. In column (1) of Table 7–A we observe that the impact of the court order on corrections operating expenditures is rising over time and then declining, with the biggest impact being observed during the years of 6–10 (during 2nd Five Years). Column (2) shows that the impact of the court order on corrections capital expenditures is observed

[26]The longest court order duration was in Mississippi with 27 years, followed by New Hampshire with 25 years, and Louisiana and Texas with 23 years (see Table 1).

only during the first five years after the order is issued. This result suggests that any capital improvements to the existing prison system takes place during the first five years. The same pictures emerges in column (4), where the impact on prison population is observed during the first five years. In this specification the impact of court orders on prison mortality is not significantly different from zero. Table 7–B indicates that the impact of a court order on per capita corrections expenditures persist for about 20 years, but that the impact on state cash assistance expenditures is realized during the first five years of the court order. When we change the window of coverage to 6 year intervals (i.e., years 1–6, 7–12, etc.), we obtained the same results. The same is true when we use windows that cover 4-year periods. In this case, the impact of court orders on capital expenditures were significant during the first two intervals (8 years).

Our results indicate that court orders have no impact on the expenditure category "Welfare − Cash." We divided this category into two sub-categories: payments to private vendors and payments to hospitals and public vendors. The effects of court orders were insignificant for both sub-categories. We also divided welfare cash assistance into federal categorical assistance (AFDC/TANF and state SSI) and other cash assistance (general assistance, refugee assistance, home relief, and emergency relief). We found the former category to be impacted by court orders, but not the latter. Finally, adding lagged dependent variables to the controls produced estimated coefficients that are qualitatively the same (although smaller in magnitude).

We also investigated the impact of court orders on two other indicators of prison conditions: cells per inmate and staff per inmate. The number of cells is partly determined by the structure of the physical facility and the number of staff per inmate is partly a function of the composition of the inmate population. Nevertheless, these

variables are indicators of prison conditions.[27] Thus, we analyzed whether or not the change in these variables between 1974 and 1990 (the only two years in which data are available) was related to the state's litigation status to shed further light into the impact of court orders on prison conditions. The results, displayed in Table 8, indicate that the states which came under the court order sometime between 1974 and 1990 (the litigated states) experienced a higher growth rates in cells per inmate and staff per inmate during that time period, indicating that litigated states experienced an improvement in prison conditions relative to non-litigated states.[28]

6 Conclusion and Discussion

Federal courts are limited by the Eleventh Amendment of the U.S. constitution which provides states with immunity.[29] To get around the Eleventh Amendment, federal cases name specific state officials as defendants, rather than the state. A recent example is prison litigation filed against California governors Arnold Schwarzenegger and Jerry Brown. However, it is difficult to enforce court orders that require additional spending against state officials since most state constitutions forbid disbursements from the state treasury except by legislative appropriation (Hirschhorn, 1984). Further, even if courts could increase prison spending, such additional spending could have detrimental effects if it leads to cuts in welfare programs.

[27]There is evidence to indicate that prisoners who are housed in large, open bay dormitories are more likely to visit clinics and to have high blood pressure than are prisoners in other housing arrangements (such as single-bunked cells, double-bunked cells, small dormitories, large partitioned dormitories). Also, prisons that contain dormitories have somewhat higher assault rates than do other prisons (Gaes, 1985).

[28]Given that the average duration of a court order is 18 years, it could be that entrenched bureaucracies and special interests (e.g., prison guards unions, prison contractors) would prevent resources being redistributed back from corrections to cash transfers after a state is released from court order.

[29]For instance, in 1973 the U.S. Supreme Court reversed a U.S. district court school equalization order, effectively removing the federal courts from school finance litigation. (*San Antonio Independent School District v. Rodriguez*, 411 U.S. 1, 1973)

In this paper we employ a state-level panel data set from 1951 to 2006 to investigate states' reactions to federal court interventions. Specifically, we analyze the impact of court orders on prison spending, prison conditions, per capita prisoners, as well as state spending on welfare, education, transportation, and other state spending. We find that court intervention in state prisons increased per inmate operating expenditures by about 27 percent, doubled per capita corrections capital expenditures, decreased prisoners per capita by 12 percent and prison mortality by 6 prisoner deaths per year.

We also investigate the effect of the release from a court order, and we find no evidence of decreases in expenditures on corrections after court orders are lifted. Similarly, the prison mortality rate does not change following the release from court order.

Because court orders make it more expensive for states to deter crime through imprisonment, one could expect states to shift towards relatively cheaper means of deterring crime. For example, given that spending on education and welfare programs are expected to negatively impact criminal activity, states could spend more on these budget items following the imposition of court orders. However, we find that following court orders, state expenditures on education, transportation, and other items remained the same, but expenditures related to welfare spending on cash assistance decreased by about 22 percent. We cannot reject the hypothesis that the decline in cash assistance payments equals the increase in correctional expenditures. In addition, our results indicate that after the state has been released from court order, spending on cash payments is not restored.

One explanation of these finding is that welfare is the first budget item for the states to cut when a budget shortfall is faced. Regardless of the mechanism that gen-

erates this outcome, the findings underscore that states shift the burden of increased correctional spending on welfare recipients. This suggests that courts should follow *Brown v. Plata* and take into account the unintended consequences of increased prison spending, namely, cuts in welfare spending.

Table 1: States Subject to Federal Court Intervention – "Litigated States"

State	Case	Citation	Year of Court Decision	Year of Release
AL	Pugh v. Locke	Injunction (M.D. Ala.)	1975	1989
AR	Holt v. Server	300 F. Supp. 825 (E.D. Ark)	1970	1982
FL	Costello v. Wainwright	489 F.Supp. 1100 (M.D. Fl.)	1980	1993
LA	Williams v. Edwards	Injunction (M.D. La.)	1975	1997
MS	Gates v. Collier	349 F. Supp. 881 (N.D. Miss.)	1972	1998
NM	Duran v. Apodaca	Consent decree (D. N.M.)	1980	1998
NH	Laaman v. Helgemoe	437 F.Supp. 269 (D.N.H.)	1977	2001
OK	Battle v. Anderson	376 F. Supp. 402 (E.D. Ok.)	1974	1986
RI	Palmigiano v. Garrahy	443 F. Supp. 956 (D. R.I.)	1977	1995
SC	Nelson v. Leeke	Consent decree (D. S.C.)	1985	1996
TN	Grubbs v. Bradley	552 F. Supp. 1052 (M.D. Tenn.)	1982	1996
TX	Ruiz v. Estelle	503 F. Supp. 1265 (S.D. Tex.)	1980	2002

Table 2: Summary Statistics

Variable	N	Mean	Std. Dev.	Min.	Max.
Oper. Corr. Exp./Inmate	2,660	$31,084	$17,503	$2,361	$145,744
Corr. Capital Exp./Inmate	2,305	$4,258	$6,113	$0	$77,285
Deaths/Inmate (× 1000)	2,713	3.06	1.98	0.00	26.06
Inmates/Capita (× 1000)	2,756	1.93	1.54	0.20	8.91
Jail Exp./Capita (× 1000)	1,496	$32.86	$28.27	$0.001	$153.01
General Revenue/Capita	2,830	$2,781	$1,978	$367	$26,680
State Corrections Exp./Capita	2,782	$67	$60	$3	$452
State Cash/Capita	2,782	$126	$90	$7	$799
State (Welfare − Cash)/Capita	2,782	$600	$481	$41	$2,490
State Education Exp./Capita	2,782	$988	$560	$66	$4,167
State Transportation Exp./Capita	2,782	$396	$235	$79	$2,945
State Other Exp./Capita	2,782	$570	$635	$34	$8,759
Court Order	2,830	0.08	0.27	0.00	1.00
Income /Capita	2,830	$23,871	$8,166	$6,582	$52,933
Unemployment Rate	2,830	3.07	1.63	0.50	12.60
% Black population	2,830	9.4	9.7	0.04	45.3
% Urban population	2,830	66.7	15.65	24.78	100.00
% Population aged 15–24	2,830	15.8	2.2	9.1	21.5
% Population aged 25–44	2,830	27.7	3.3	15.9	39.0
% Population aged 45–54	2,830	11.4	2.3	7.4	42.6
% Population aged 55+	2,830	19.5	3.3	6.4	28.8

NOTES – All monetary values are in real dollars. Most dependent variables cover years 1951 to 2006.

Table 3-A: Impact of Federal Court Orders on Corrections

	(1)	(2)	(3)	(4)	(5)
	Corrections Oper. Exp. per Inm.	Corrections Capital Exp. per Inm.	Deaths per Inm.	Inmates per Cap.	Jail Exp./Cap.
Court Order	0.241***	1.129***	-0.220**	-0.124***	0.014
	(0.049)	(0.240)	(0.095)	(0.037)	(0.122)
Court Order × Post_{80}	-0.094*	-0.779***	0.212	0.123**	0.007
	(0.054)	(0.280)	(0.151)	(0.047)	(0.137)
Income / Capita	0.396	5.190***	0.796	-0.084	2.151***
	(0.255)	(1.328)	(0.662)	(0.178)	(0.718)
Unemp. Rate	0.005	0.145	-0.038	0.048	0.205**
	(0.036)	(0.181)	(0.075)	(0.031)	(0.077)
% Black	0.212	-0.252	0.035	0.073	-0.376
	(0.138)	(0.636)	(0.262)	(0.112)	(0.380)
% Urban	-0.994***	-0.636	0.401	1.011**	2.095**
	(0.344)	(1.468)	(0.410)	(0.379)	(0.832)
% Population 15-24	0.389	-0.673	0.275	-0.469*	0.050
	(0.319)	(1.598)	(0.655)	(0.249)	(0.655)
% Population 25-44	-0.486	-4.715	1.154	-0.304	3.689*
	(0.912)	(3.246)	(1.084)	(0.591)	(2.005)
% Population 45-54	-0.481	-2.315	0.443	-0.062	1.280
	(0.370)	(1.875)	(0.523)	(0.251)	(1.204)
% Population 55+	-0.651	-0.605	0.849	0.184	-0.084
	(0.534)	(3.027)	(0.873)	(0.459)	(0.980)
Observations	2660	2301	2553	2756	1496
R-squared	0.956	0.455	0.441	0.976	0.947

NOTES – The dependent variables are natural logarithms of the corrections operating expenditures per inmate, corrections capital expenditures per inmate, prison deaths per 1,000 inmates, prisoners per 1,000 residents and jail expenditures per capita, respectively in columns (1) to (5). All models contain state fixed effects and year dummies as well as linear and quadratic state trends. Robust standard errors clustered at the state level are presented in (parentheses). ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 3-B: Impact of Federal Court Orders on State Spending

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	General Rev./Cap.	Corrections Exp./Cap	Cash per Cap.	Welfare − Cash per Cap.	Educ. Exp./Cap.	Trans. Exp./Cap.	Other Exp./Cap.
CourtOrder	-0.006	0.215***	-0.249**	-0.002	-0.028	-0.025	0.034
	(0.021)	(0.047)	(0.106)	(0.041)	(0.020)	(0.038)	(0.054)
CourtOrder × Post_{80}	0.008	-0.072	0.178**	-0.026	0.024	0.050	-0.057
	(0.030)	(0.057)	(0.087)	(0.053)	(0.037)	(0.050)	(0.064)
Income / Capita	0.375***	0.656**	-1.110***	0.478**	0.478**	0.329**	0.995***
	(0.111)	(0.292)	(0.351)	(0.206)	(0.202)	(0.159)	(0.347)
Unemp. Rate	0.019	0.064*	0.090*	0.092***	0.056**	0.079***	0.088**
	(0.018)	(0.036)	(0.050)	(0.026)	(0.026)	(0.026)	(0.036)
% Black	0.006	0.403***	-0.011	0.005	-0.057	-0.065	0.112
	(0.048)	(0.121)	(0.182)	(0.080)	(0.089)	(0.090)	(0.093)
% Urban	0.292	0.197	1.021**	0.041	0.086	0.439	0.361
	(0.345)	(0.587)	(0.418)	(0.278)	(0.415)	(0.419)	(0.477)
% Population 15–24	-0.075	-0.249	0.078	0.042	-0.033	-0.242	-0.073
	(0.157)	(0.279)	(0.450)	(0.212)	(0.236)	(0.218)	(0.251)
% Population 25–44	0.244	-1.524	2.078**	0.855	-1.322*	0.433	0.870
	(0.376)	(0.937)	(0.943)	(0.616)	(0.745)	(0.590)	(0.618)
% Population 45–54	-0.058	-1.107***	1.098**	0.286	-0.741***	-0.429	-0.163
	(0.163)	(0.392)	(0.497)	(0.273)	(0.274)	(0.281)	(0.266)
% Population 55+	0.412	-0.820	0.999	0.836**	-0.215	0.088	0.921**
	(0.248)	(0.579)	(0.807)	(0.377)	(0.326)	(0.496)	(0.393)
Observations	2830	2782	2782	2782	2782	2782	2782
R-squared	0.989	0.972	0.872	0.988	0.984	0.979	0.879

NOTES – The dependent variables are the natural logarithms of General state revenues per capita, total state corrections expenditure per capita, state cash payments per capita, state non-cash welfare expenditures per capita, state transportation expenditures per capita and other state expenditures per capita, respectively in columns (1) to (7). All models contain state fixed effects and year dummies as well as linear and quadratic state trends. Robust standard errors clustered at the state level are presented in (parentheses). ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 4-A: Impact of Federal Court Orders on Corrections

	(1)	(2)	(3)	(4)	(5)
	Corrections Oper. Exp. per Inm.	Corrections Capital Exp. per Inm.	Deaths per Inm.	Inmates per Cap.	Jail Exp./Cap.
CourtOrder	0.232***	1.225***	-0.192**	-0.116***	0.105
	(0.050)	(0.227)	(0.086)	(0.034)	(0.098)
CourtOrder × Post_{80}	-0.050	-0.764***	0.184	0.099**	-0.011
	(0.062)	(0.273)	(0.131)	(0.046)	(0.124)
Observations	2660	2301	2553	2756	1496
R-squared	0.953	0.439	0.436	0.974	0.942

NOTES – The dependent variables are natural logarithms of the corrections operating expenditures per inmate, corrections capital expenditures per inmate, prison deaths per 1,000 inmates, prisoners per 1,000 residents and jail expenditures per capita, respectively in columns (1) to (5). All models contain state fixed effects and year dummies as well as linear and quadratic state trends. Robust standard errors clustered at the state level are presented in (parentheses). ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 4-B: Impact of Federal Court orders on the State Spending

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	General Rev./Cap.	Corrections Exp./Cap	Cash per Cap.	Welfare − Cash per Cap.	Educ. Exp./Cap.	Trans. Exp./Cap.	Other Exp./Cap.
CourtOrder	0.002	0.224***	-0.274**	-0.007	-0.023	-0.012	0.046
	(0.019)	(0.050)	(0.113)	(0.040)	(0.022)	(0.039)	(0.053)
CourtOrder × Post_{80}	-0.004	-0.050	0.158*	-0.023	0.031	0.035	-0.068
	(0.031)	(0.051)	(0.086)	(0.053)	(0.038)	(0.052)	(0.069)
Observations	2830	2782	2782	2782	2782	2782	2782
R-squared	0.988	0.970	0.864	0.987	0.983	0.977	0.866

NOTES – The dependent variables are the natural logarithms of General state revenues per capita, total state corrections expenditure per capita, state cash payments per capita, state non-cash welfare expenditures per capita, state transportation expenditures per capita and other state expenditures per capita, respectively in columns (1) to (7). All models contain state fixed effects and year dummies as well as linear and quadratic state trends. Robust standard errors clustered at the state level are presented in (parentheses). ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 5: Impact of Federal Court Orders on the Difference Between Corrections Operating Expenditures and Local Police and Jail Spending

	(1)	(2)	(3)	(4)
	Corrections-Police	Corrections-Police	Corrections-Jail	Corrections-Jail
	Version 1	Version 2	Version 1	Version 2
CourtOrder	0.274***	0.231***	0.314***	0.322***
	(0.053)	(0.050)	(0.104)	(0.093)
CourtOrder $\times$ Post_{80}	-0.107**	-0.097	-0.206*	-0.206**
	(0.052)	(0.060)	(0.115)	(0.102)
Income / Capita	0.136	0.203	-0.395	-0.487
	(0.255)	(0.288)	(0.537)	(0.449)
Unemp. Rate	-0.056	-0.006	-0.045	-0.142*
	(0.039)	(0.048)	(0.105)	(0.083)
% Black	0.168	0.318**	0.074	0.484
	(0.139)	(0.149)	(0.222)	(0.339)
% Urban	-1.245**	-0.495	-1.876**	-2.424***
	(0.574)	(0.451)	(0.732)	(0.843)
% Population 15–24	0.620*	0.247	0.306	0.346
	(0.315)	(0.266)	(0.696)	(0.683)
% Population 25–44	-0.312	-0.707	-3.017**	-4.409**
	(0.632)	(0.786)	(1.482)	(2.009)
% Population 45–54	0.002	-0.922**	-1.497**	-1.931
	(0.344)	(0.407)	(0.700)	(1.273)
% Population 55+	0.227	0.030	0.337	-0.034
	(0.587)	(0.585)	(0.979)	(1.059)
Observations	2161	2248	1400	1482
R-squared	0.931	0.888	0.811	0.952

NOTES – The dependent variables are the differences between the natural logarithms of the following variables: (1) [Corrections Operating Expenditures/Inmate]-[Local Police Expenditures/Population], (2) [Corrections Operating Expenditures/Population]-[Local Police Expenditures/Population], (3) [Corrections Operating Expenditures/Inmate]-[Jail Expenditures/Jail Inmates] and (4) [Corrections Operating Expenditures/Population]-[Jail Expenditures/Population]. All control variables are in natural logarithms. All models contain state fixed effects and year dummies as well as linear and quadratic state trends. Robust standard errors clustered at the state level are presented in (parentheses). ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

Table 6-A: Impact of Releases from Federal Court Orders on Corrections

	(1)	(2)	(3)	(4)	(5)
	Corrections Oper. Exp. per Inm.	Corrections Capital Exp. per Inm.	Deaths per Inm.	Inmates per Cap.	Jail Exp./Cap.
Release	-0.047	-0.130	0.020	0.006	-0.026
	(0.053)	(0.227)	(0.144)	(0.053)	(0.061)
	[0.839]	[0.972]	[0.988]	[0.977]	[0.964]
Income / Capita	0.768	-2.347	0.524	0.258	-0.107
	(0.526)	(3.140)	(1.776)	(0.663)	(0.753)
Unemp. Rate	0.066	-0.294	0.360	0.079	0.157*
	(0.056)	(0.367)	(0.216)	(0.072)	(0.072)
% Black	0.093	0.512	1.110	-0.028	0.411
	(0.131)	(0.980)	(0.513)	(0.098)	(0.545)
% Urban	-1.747	-2.840	-0.780	3.796	2.034
	(1.133)	(7.938)	(4.136)	(1.223)	(2.207)
% Population 15–24	-0.369	1.969	1.072	0.110	2.508
	(0.582)	(4.837)	(2.239)	(0.464)	(1.191)
% Population 25–44	0.694	-6.170	2.806	-1.832	2.867
	(1.995)	(6.527)	(3.506)	(1.048)	(1.685)
% Population 45–54	0.241	-1.053	0.933	0.694	3.022
	(1.588)	(6.485)	(3.425)	(1.610)	(2.126)
% Population 55+	0.779	-1.147	7.497	-3.748	-4.912
	(1.667)	(7.343)	(4.987)	(2.115)	(2.052)
Observations	355	355	346	367	290
R-squared	0.966	0.642	0.466	0.988	0.951

NOTES – The dependent variables are natural logarithms of the corrections operating expenditures per inmate, corrections capital expenditures per inmate, prison deaths per 1,000 inmates, prisoners per 1,000 residents and jail expenditures per capita, respectively in columns (1) to (5). All models contain state fixed effects and year dummies as well as linear and quadratic state trends. Robust standard errors clustered at the state level are presented in (parentheses). The values in [brackets] are the p-values of the estimated coefficients of Release based on bootstrapping proposed by Cameron, Gelbach and Miller (2008).

Table 6-B: Impact of Releases from Federal Court Orders on State Spending

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	General Rev./Cap.	Corrections Exp./Cap.	Cash per Cap.	Welfare − Cash per Cap.	Educ. Exp./Cap.	Trans. Exp./Cap.	Other Exp./Cap.
Release	-0.019	-0.039	-0.069	0.023	-0.039	-0.008	-0.073
	(0.009)	(0.051)	(0.082)	(0.034)	(0.017)	(0.053)	(0.035)
	[0.777]	[0.940]	[0.907]	[0.978]	[0.586]	[0.982]	[0.706]
Income / Capita	0.673	0.595	0.412	0.714	0.781	0.646	0.594
	(0.215)	(0.331)	(0.882)	(0.405)	(0.217)	(0.508)	(0.633)
Unemp. Rate	0.002	0.110	0.055	0.017	0.057	0.069	0.093
	(0.020)	(0.049)	(0.075)	(0.042)	(0.016)	(0.099)	(0.060)
% Black	-0.064	0.247	0.249	-0.430	0.014	0.059	-0.080
	(0.063)	(0.211)	(0.429)	(0.250)	(0.072)	(0.196)	(0.163)
% Urban	0.313	1.906	2.573	-0.289	-1.142	1.630	1.987
	(0.287)	(1.317)	(2.683)	(1.130)	(0.430)	(0.961)	(0.924)
% Population 15–24	-0.315	0.204	-0.740	0.005	-0.456	0.609	-0.017
	(0.257)	(0.747)	(0.701)	(0.650)	(0.421)	(0.499)	(0.479)
% Population 25–44	-1.002	-1.609	-3.261	-0.347	-0.829	-0.979	-1.191
	(0.687)	(1.974)	(2.135)	(0.999)	(1.165)	(1.482)	(1.508)
% Population 45–54	-0.470	1.317	-0.118	0.327	0.616	-0.486	-1.439
	(0.551)	(1.396)	(2.378)	(1.238)	(0.569)	(1.172)	(0.957)
% Population 55+	-0.269	-2.383	-4.649	-0.476	1.138	-2.715	-1.532
	(0.384)	(1.683)	(2.268)	(1.388)	(0.381)	(1.131)	(1.179)
Observations	357	357	357	357	357	357	357
R-squared	0.987	0.966	0.904	0.976	0.985	0.859	0.973

NOTES – The dependent variables are the natural logarithms of General state revenues per capita, total state corrections expenditure per capita, state cash payments per capita, state non-cash welfare expenditures per capita, state transportation expenditures per capita and other state expenditures per capita, respectively in columns (1) to (7). All models contain state fixed effects and year dummies as well as linear and quadratic state trends. Robust standard errors clustered at the state level are presented in (parentheses).

Table 7-A: Impact of Court Orders on Corrections: Models with Staggered Court Order Effects

	(1)	(2)	(3)	(4)	(5)
	Corrections Oper. Exp. per Inm.	Corrections Capital Exp. per Inm.	Deaths per Inm.	Inmates per Cap.	Jail Exp./Cap.
1^{st} Five Years	0.234***	0.749*	0.061	-0.069**	0.079
	(0.065)	(0.394)	(0.156)	(0.032)	(0.090)
2^{nd} Five Years	0.323***	0.519	-0.127	-0.079	0.262
	(0.098)	(0.386)	(0.188)	(0.068)	(0.164)
3^{rd} Five Years	0.304**	0.194	0.086	-0.010	0.322
	(0.121)	(0.441)	(0.187)	(0.103)	(0.208)
4^{th} Five Years	0.222*	-0.403	-0.182	0.101	0.253
	(0.114)	(0.634)	(0.231)	(0.109)	(0.249)
5^{th} Five Years	0.210*	-0.492	0.049	0.001	0.254
	(0.108)	(0.562)	(0.239)	(0.115)	(0.249)
Income/Capita	0.381	4.974***	0.767	-0.051	2.094***
	(0.260)	(1.348)	(0.646)	(0.178)	(0.743)
Unemployment Rate	0.002	0.140	-0.026	0.046	0.189**
	(0.035)	(0.176)	(0.074)	(0.031)	(0.078)
% Black	0.176	-0.262	0.045	0.078	-0.415
	(0.134)	(0.597)	(0.259)	(0.111)	(0.385)
% Urban	-0.912***	-0.602	0.387	0.994**	2.159**
	(0.314)	(1.508)	(0.412)	(0.376)	(0.887)
% Population 15 to 24	0.304	-0.831	0.382	-0.426*	-0.013
	(0.316)	(1.583)	(0.656)	(0.245)	(0.655)
% Population 25 to 44	-0.521	-4.800	1.297	-0.294	3.760*
	(0.915)	(3.282)	(1.102)	(0.594)	(2.023)
% Population 45 to 54	-0.484	-2.570	0.508	-0.043	1.329
	(0.374)	(1.885)	(0.521)	(0.253)	(1.206)
% Population 55+	-0.534	-0.690	0.810	0.177	0.227
	(0.501)	(3.018)	(0.887)	(0.465)	(0.970)
Observations	2660	2301	2553	2756	1496
R-squared	0.956	0.458	0.443	0.976	0.947

NOTES – The dependent variables are natural logarithms of the corrections operating expenditures per inmate, corrections capital expenditures per inmate, prison deaths per 1,000 inmates, prisoners per 1,000 residents and jail expenditures per capita, respectively in columns (1) to (5). All models contain state fixed effects and year dummies as well as linear and quadratic state trends. Robust standard errors clustered at the state level are presented in (parentheses).

Table 7-B: Impact of Court Orders on State Spending: Models with Staggered Court Order Effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	General Rev./Cap.	Corrections Exp./Cap.	Cash per Cap.	Welfare − Cash per Cap.	Educ. Exp./Cap.	Other Exp./Cap.	Trans. Exp./Cap.
1^{st} Five Years	-0.011	0.206**	-0.258**	-0.059	-0.001	-0.039	0.007
	(0.024)	(0.093)	(0.126)	(0.046)	(0.035)	(0.050)	(0.055)
2^{nd} Five Years	-0.004	0.232**	-0.200	-0.065	-0.001	0.015	0.012
	(0.028)	(0.095)	(0.200)	(0.066)	(0.063)	(0.077)	(0.061)
3^{rd} Five Years	-0.028	0.231**	-0.202	-0.089	-0.032	0.022	-0.021
	(0.039)	(0.113)	(0.277)	(0.078)	(0.078)	(0.093)	(0.077)
4^{th} Five Years	-0.017	0.205*	-0.185	-0.037	-0.055	0.058	-0.055
	(0.051)	(0.117)	(0.334)	(0.132)	(0.094)	(0.123)	(0.119)
5^{th} Five Years	-0.041	0.107	-0.229	-0.086	-0.024	-0.020	-0.011
	(0.048)	(0.111)	(0.316)	(0.105)	(0.084)	(0.118)	(0.101)
Income/Capita	0.369***	0.645**	-1.121***	0.479**	0.468**	0.328**	0.979***
	(0.111)	(0.295)	(0.347)	(0.209)	(0.203)	(0.162)	(0.347)
Unemployment Rate	0.019	0.060*	0.089*	0.090***	0.059**	0.075***	0.088**
	(0.018)	(0.036)	(0.045)	(0.026)	(0.026)	(0.026)	(0.037)
% Black	0.010	0.385***	0.016	0.012	-0.051	-0.065	0.110
	(0.048)	(0.119)	(0.180)	(0.080)	(0.090)	(0.091)	(0.094)
% Urban	0.277	0.229	0.951**	0.019	0.073	0.431	0.366
	(0.354)	(0.577)	(0.376)	(0.283)	(0.422)	(0.423)	(0.476)
% Population 15 to 24	-0.063	-0.293	0.169	0.049	-0.013	-0.232	-0.097
	(0.159)	(0.274)	(0.418)	(0.216)	(0.236)	(0.220)	(0.250)
% Population 25 to 44	0.250	-1.530	2.123**	0.843	-1.304*	0.434	0.864
	(0.379)	(0.930)	(0.946)	(0.617)	(0.744)	(0.590)	(0.623)
% Population 45 to 54	-0.059	-1.112***	1.125**	0.275	-0.739**	-0.420	-0.172
	(0.163)	(0.397)	(0.496)	(0.272)	(0.276)	(0.281)	(0.264)
% Population 55+	0.397	-0.761	0.918	0.806**	-0.235	0.097	0.934**
	(0.251)	(0.572)	(0.784)	(0.382)	(0.330)	(0.504)	(0.390)
Observations	2830	2782	2782	2782	2782	2782	2782
R-squared	0.989	0.972	0.872	0.988	0.984	0.979	0.879

NOTES – See Table 6–B.

Table 8: Impact of Federal Court Orders on Prison Cells and Prison Staff

	(1)	(2)	(3)	(4)
	Δ Cells/Inm.	Δ Cells/Inm.	Δ Staff/Inm.	Δ Staff/Inm.
CourtOrder	0.271**	0.209***	0.138***	0.093**
	(0.130)	(0.063)	(0.038)	(0.039)
Δ Income / Capita		1.416***		0.454**
		(0.438)		(0.215)
Δ Unemp. Rate		-0.182		0.0294
		(0.129)		(0.054)
Δ % Black		-0.910***		-0.192**
		(0.277)		(0.085)
Δ % Urban		-1.285***		-0.109
		(0.395)		(0.246)
Δ % Population 15–24		-0.359		0.211
		(0.882)		(0.335)
Δ % Population 25–44		-1.747		-0.440
		(1.270)		(0.687)
Δ % Population 45–54		2.679***		0.649***
		(0.504)		(0.222)
Δ % Population 55+		1.305**		0.001
		(0.640)		(0.258)
Observations	49	49	49	49
R-squared	0.084	0.720	0.215	0.584

NOTES – The dependent variables are prison cells per inmate in the first two columns and prison guards per inmate in the last two columns. All variables are in natural logarithm differences. Robust standard errors clustered at the state level are presented in (parentheses). ***, ** and * indicate significance at 1%, 5% and 10%, respectively.

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