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# The Political Economy of Mass Incarceration and Crime: An Analytic Model

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**Abstract:** This article presents a model of mass incarceration in the United States, which has the largest proportion of its population imprisoned among advanced countries. Although the 1968 Kerner Commission recommended integrating blacks into the larger American community, political decisions pushed American judicial policies in the opposite direction. The model demonstrates that the United States has moved from one equilibrium position to another. It explains why the growth of prisoners has ceased in the last decade and what would be needed to return to the original equilibrium.

**Keywords** mass incarceration; prisons; crime; race

**JEL Classifications** H1; K42; J78

## INTRODUCTION

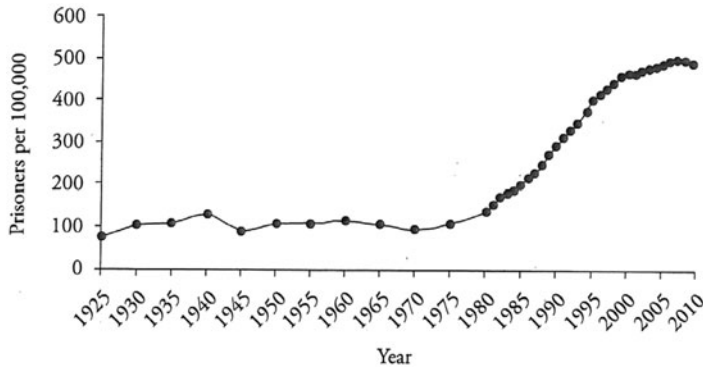
Mass incarceration is a major problem of the United States today that is largely invisible to us. Prisons are located in rural areas to save money and provide rural jobs, and the effects of mass incarceration are largely ignored in political and social discussions. How many people know that one out of three African American men will go to prison at today's incarceration rates? And how many kids in urban public education are distracted by having a parent or a friend's parent in prison? This article sheds light on this unseen problem by means of an economic model that implies that we have moved from one equilibrium position to another, from limited incarceration to mass incarceration (Bonczar 2003; Johnson 2009; Morsy and Rothstein 2016).

The rate of incarceration in the United States stayed near 100 people per 100,000 residents from 1925 to around 1980. The incarceration rate then rose rapidly for the next 30 years, although the rise slowed after 2000. The rise in state prison admissions and releases is shown

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Color versions of one or more of the figures in the article can be found online at [www.tandfonline.com/mijp](http://www.tandfonline.com/mijp).



**FIGURE 1** Incarceration rate, 1925–2009. *Source:* Raphael and Stoll 2013: 5. Authors' calculation based on Bureau of Justice Statistics, *National Prisoners Statistics* (various years).

in Figure 1. The incarceration rate in prisons and jails in 2009 was over 700 per 100,000, while the incarceration rate in the European Union, Canada, and Mexico stayed near the American rate before 1980. The American incarceration rate now is the highest in the developed world, beating even Russia's incarceration rate of 600. The U.S. rate of incarceration recently stopped rising and fell slightly in 2015 (Raphael and Stoll 2013: 5–10; Carson and Anderson 2016).

Crime rates rose in the 1960s and 1970s, and incarceration followed suit, both to remove criminals from society and to deter others from committing crimes. But while crime rates began to fall after 1980—and fell consistently after 1990—incarceration rates continued to increase. They continued to rise into the 21st century and have not declined steadily to mirror the decline in the crime rate. The model presented here explains why the paths of crime and incarceration became disconnected in the United States.

This economic model synthesizes and unifies the arguments in several recent books on mass incarceration in America. Each of these books is an important contribution to the literature in its own right, but they tend to focus on the determinants of crime and of incarceration separately. My model brings these together interactively (Alexander 2010; Clear 2007; Clear and Frost 2014; Pfaff 2017; Raphael and Stoll 2009, 2013).

An important insight from these books is that incarceration can cause crime to increase, not decrease, in the presence of mass incarceration. This nonintuitive proposal is supported by observing that mass incarceration reduces social and human capital in a neighborhood, leading to more criminal activity. Another insight is that mass incarceration appears to be in equilibrium in the United States today; recent changes in criminal justice that increase the power of public prosecutors will be very hard to reverse. The purpose of synthesizing these contributions in an economic model is to make them more useful for criminologists and economists working in the fields of mass incarceration and social justice. I present the model and use it to explain the development of American mass incarceration since 1970, closing with suggestions for policy and future research.

## THE MODEL

There are two variables of interest in the study of mass incarceration: the crime rate,  $c$ , and the rate of incarceration,  $i$ . I describe their determinants in a set of equations. The first equation shows the crime rate as a function of the rate of incarceration:

$$c = f(i) \tag{1}$$

Although the equation is simple, the function,  $f(i)$ , is complex. It summarizes the effects of incarceration on the crime rate as noted in the literature, in particular that they are not monotonic. Clear (2007) summarized this function in a paragraph:

Imprisonment in America is concentrated among young, poor—dominantly minority—men and (to a lesser extent) women who come from impoverished communities. The way these young people cycle through our system of prisons and jails, then back into the community, leaves considerable collateral damage in its wake. Families are disrupted, social networks and other forms of social support are weakened, health is endangered, labor markets are thinned, and—more important than anything else—children are put at risk of the depleted human and social capital that promotes delinquency. After a certain point, the collateral effects of these high rates of incarceration seem to contribute to more crime in these places. Crime fuels a public call for ever-tougher responses to crime. The increasing way in which the face of criminality is the face of person of color contributes to an unarticulated public sense that race and crime are closely linked. The politics of race and justice coexist malignantly, sustaining an ever-growing policy base that guarantees new supplies of penal subjects in a self-sustaining and self-justifying manner. (Clear 2007: 175)

Even though  $f(i)$  leaves out other determinants of crime, it summarizes both personal and social responses to incarceration to indicate a simple dynamic. When the crime rate,  $c$ , is above  $f(i)$ , the crime rate tends to fall. And when  $c$  is below  $f(i)$ ,  $c$  tends to rise. When Equation 1 holds, the crime rate,  $c$ , is stable. The second equation describes the behavior of  $c$  when it deviates from  $f(i)$ . The constant is in the equation to allow this function to be used for the total crime rate, the violent crime rate or Part 1 crimes.

$$dc/dt = a[f(i) - c] \tag{2}$$

The third equation turns to the second question raised by the books described earlier and shows how the sustainable rate of incarceration,  $i$ , varies with crime,  $c$ .

$$i = g(c)/r \tag{3}$$

Equation 3 answers the question: For a given crime rate, when will the incarceration rate be constant? The answer is when the number of convictions,  $g(c)$ , equals the number of releases,  $ri$ . Equivalently, when the prison population,  $i$ , equals the number of convictions times the length of sentence,  $l/r$ . The function,  $g(c)$ , describes the sustainable imprisoning rate as the result of political activities that may change abruptly in the wake of political changes. In other words, changes in the government policies may be as important as movement along the function,  $g(c)$ , itself.

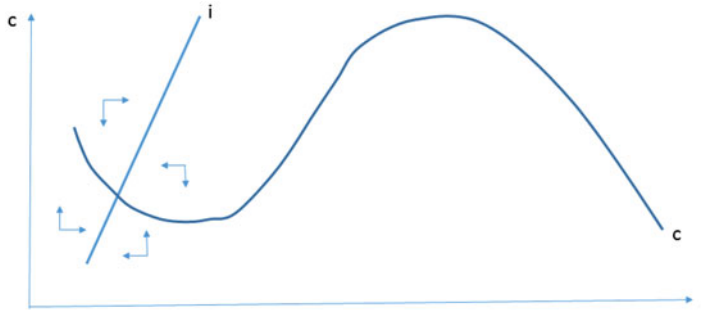


FIGURE 2 Curves Showing the Initial Stable Equilibrium

The conventional analysis is that incarceration changes more or less proportionally with crime. I assume that the rate of incarceration is a constant times the crime rate to highlight changes in this constant that are central to the operation of this model. The sustainable rate of incarceration rises with the function that shows how the justice system takes people from committing crimes to serving time in prison and decreases with the rate of release from prison.

The fourth equation shows that the rate of incarceration increases over time when the number of people entering prison exceeds the release rate,  $r$ , times the rate of incarceration. The number of people going to prison is a function of the crime rate, and the number of people leaving is simply the release rate from prison times the proportion of people in prison:

$$di/dt = g(c) - ri \tag{4}$$

The amount of incarceration is like water in a bathtub, with  $g(c)$  being a faucet that fills the bathtub, and  $r$ , the release rate, being a drain that empties the bathtub. When  $g(c) = r i$ , the rate of incarceration is sustainable as shown in Equation 3. Unlike Equation 2, Equation 4 is a mechanical relationship that tells how the rate of incarceration changes. The rate of incarceration is stable when these two rates are equal. The “faucet” describes how crime leads to incarceration through political decisions on policing, justice, and sentencing. The function,  $g(c)$ , is affected by politics in addition to the crime rate. It resembles the accounting model used by Raphael and Stoll (2009: 29–32).

The final step is to insert Equation 3 into a graph of  $c$  and  $i$  by solving Equation 3 to get  $g(c) = r i$  and differentiating by  $i$  to get  $g'(c) dc/di = r$ . Rearranging yields Equation 5.

$$dc/di = r/g'(c) \tag{5}$$

If  $g(c)$  is linear, then  $g'(c)$  is constant and measures the sensitivity of incarceration to the crime rate. When incarceration is insensitive to crime—that is, when there are alternatives to incarceration—Equation 5 is steep. When incarceration responds strongly to crime—that is, when  $g'(c)$  is large—then Equation 5 is flatter.

Equations 1 and 5 are shown in Figure 2. They cross at an equilibrium. Arrows show the direction of movement when out of equilibrium,  $dc/dt$  and  $di/dt$ , as defined by Equations 2 and 4. Equation 1 is drawn as a cubic curve falling at low and high incarceration with a

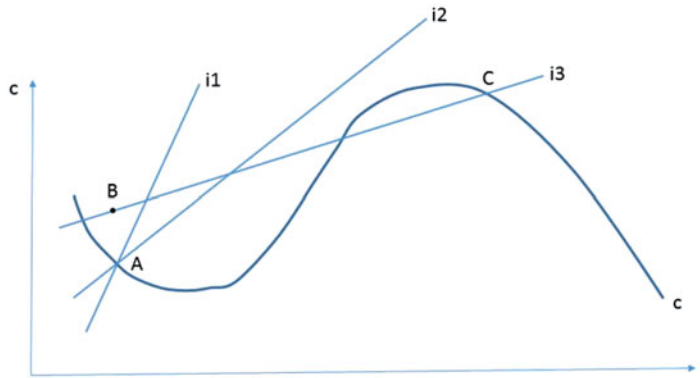


FIGURE 3 Curves Showing Two Stable Equilibria

rising section in the middle. The slope of the line defined by Equation 5 varies with  $r$  and is linear in the rate of incarceration,  $g(c)$ . Since both  $r$  and  $g'(c)$  are positive constants, the line slopes upward.

Equations 2 and 4 describe the dynamics of this model when it is out of the equilibrium where the two curves cross. When  $f(i) > c$ ,  $dc/dt$  is positive, and when  $f(i) < c$ ,  $dc/dt$  is negative. When  $g(c) > r i$ ,  $di/dt$  is positive, and when  $g(c) < r i$ ,  $di/dt$  is negative. As you can see from the arrows in Figure 2, the intersection of the two curves represents a stable equilibrium. The line for  $i$  (Equation 3) needs to be steeper than the line for  $c$  (Equation 1) when they cross for the equilibrium to be stable.

Equation 1 is behavioral and liable to have lags as behavior changes slowly. It is best to see this relationship as a long-run relationship that may not be observed exactly at all times. Equation 5, by contrast, is an exact relationship whereby the incarceration rate will adjust immediately after a change in judicial or police actions that increase  $g(c)$  or a change in the length of sentences that reduce prison releases,  $r$ .

## APPLICATION

Having explained the model, I now use it to increase our understanding of the rise of mass incarceration in the United States after 1980. Figure 3 provides a framework for the narrative to follow. I have drawn three examples of the line for incarceration in Equation 3. The first line is the same as in Figure 2 and represents the curve as it existed around 1965. It is labelled  $i1$ , and it represents an equilibrium incarceration rate typical of Western Europe, Canada, and Mexico. The change to mass incarceration was a two-stage process.

American society was in turmoil in the late 1960s. There were many high-profile assassinations of prominent people: John F. Kennedy in 1963 and Martin Luther King and Robert F. Kennedy in 1968. And there were race riots in many cities around the country: Harlem in 1964; Watts and Chicago in 1965; and Newark, Detroit, and many other cities in 1967. Crime suddenly had risen all over. People were scared, and President Johnson appointed a

National Advisory Commission on Civil Disorders, known as the Kerner Commission, in 1967 to help understand what was going on.

The Kerner Commission's Report was rushed into publication for political reasons and soon was drowned out by concern over the Vietnam War. It, however, crystallized what was going on in a pithy conclusion: "What white Americans have never fully understood—but which the Negro can never forget—is that white society is deeply implicated in the ghetto. White institutions created it, white institutions maintain it, and white society condones it" (Kerner Commission 1968: summary).

The report argued that the riots were caused in part by a revolution of rising expectations. The Civil Rights Movement of the 1960s led African Americans to hope for integration into the general society, but progress was slow. Observers of other attempted revolutions have noted that they often come when expectations rise faster than the anticipated outcomes appear. De Tocqueville, for example, noted that, "Evils which are patiently endured when they seem inevitable become intolerable when once the idea of escape from them is suggested." Historian Crane Brinton expanded this comment into a theory of revolutions in the 1930s (Kerner Commission 1968: ch. 5; De Tocqueville 1856: 214; Brinton 1938).

Consistent with this view, the report concluded that policies should be adopted to move toward a single integrated society: "Integration is the only course which explicitly seeks to achieve a single nation rather than accepting the present movement toward a dual society. This choice would enable us to at least begin reversing the profoundly divisive trend already so evident in our metropolitan areas—before it becomes irreversible" (Kerner Commission 1968: ch. 16).

But the Kerner Report was drowned out by the Vietnam War and the backlash to the Civil Rights Movement. Instead of reversing the divisive trend, public policies intensified it by seeking additional imprisonment and longer sentences for African Americans. The riots passed into history, but the urge to incarcerate altered the equilibrium shown in Figure 2. Starting in the 1970s, state legislatures moved to shift from discretionary to structured sentencing rules. These changes were part of the increasing war on drugs that Nixon initiated and reactions to the urban race riots of the late 1960s (Hinton 2016; Weiman and Weiss 2009).

Mass incarceration started from Nixon's 1971 War on Drugs, in a process described vividly by John Ehrlichman, Nixon's domestic-policy adviser, in 1994:

The Nixon campaign in 1968, and the Nixon White House after that, had two enemies: the antiwar left and black people. You understand what I'm saying? We knew we couldn't make it illegal to be either against the war or black, but by getting the public to associate the hippies with marijuana and blacks with heroin, and then criminalizing both heavily, we could disrupt those communities. We could arrest their leaders, raid their homes, break up their meetings, and vilify them night after night on the evening news. Did we know we were lying about the drugs? Of course we did (Baum 2016).

This was the origin of mass incarceration in the United States, which has been directed at African Americans from Nixon's time to today (Alexander 2010).

The policy changes that led to mass incarceration have been characterized as a regime change, signaling a change from regarding incarcerated people as ordinary people who have

engaged in illegal acts to regarding them as different kind of people than others. Different kinds of people often were distinguished by skin color, and this racial content was imbedded in some of the new laws. The change also has been characterized as a grand social experiment that now has failed (Weiman, et al. in Bushway et al. 2007; Clear and Frost 2014).

This story is shown in [Figure 3](#). The first movement was a spike in the crime rate during the late 1960s in the urban riots. It is shown as a movement from point A to point B, from the equilibrium to a point off of the incarceration curve. The crime rate reverted to the prior equilibrium in the 1970s, but the slope of the incarceration function declined as arrests rose and releases from prison,  $r$ , decreased due to harsher sentencing caused by Nixon's War on Drugs. These changes were supposed to reduce lawlessness, although the spike in crime during the urban riots had come to a halt quickly by then.

The crack epidemic of the 1980s led to policy changes that intensified the movements of the 1970s. The changes originated in an attempt to reform the judicial process to lower prison terms, promote consistency among courts, and encourage alternative sanctions to prison. By the time various bills were combined and transformed into the Sentencing Reform Act of 1984, however, the aim had shifted to become a part of the War on Drugs and the national toughness on crime. It was followed by a series of laws that translated the new, tough approach into detailed sentencing guidelines (Lynch 2016: ch. 2).

The Anti-Drug Abuse Act of 1986 was passed after a basketball player died from a drug overdose and Republicans accused Democrats of being soft on crime. Democrats wanted to take credit for an antidrug program in the November elections, so the bill had to pass Congress in October. That required action on the House floor in September, and committees had to finish their work before the August recess. Since the idea originated in July, committees had less than a month to develop the ideas, write the bills to carry out those ideas, and get comments from the relevant government agencies and the public at large.

The House Judiciary Committee considered a new idea that was "tough on drugs" for the first time four days before the recess began. The idea was to create mandatory minimum sentences in drug cases, which had tremendous political appeal. This type of penalty had been removed from federal law in 1970 after extensive and careful consideration, but no hearings were held on reviving this idea in 1986. No experts on the relevant issues, no judges, no one from the Bureau of Prisons or from any other office in the government provided advice on the idea before it was rushed through the committee and into law. After bouncing back and forth between the Democratic House and the Republican Senate as each party jockeyed for political advantage, the Anti-Drug Abuse Act of 1986 passed both houses a few weeks before the November elections (Sterling 1999).

The new law mandated a minimum sentence of 5 years without parole for possession of 5 grams of crack cocaine, while it mandated the same only for possession of 500 grams of powder cocaine. This 100:1 disparity clearly criminalized blacks far more than whites as black cocaine users favored crack cocaine; Nixon's War on Drugs became even more firmly integrated into a New Jim Crow (Alexander 2010).

The Anti-Drug Abuse Act of 1986 allowed prosecutors to seek a doubling of the mandatory minimum sentences if the defendant had a prior conviction. Another law passed in 1988 allowed prosecutors to ask for life imprisonment without parole for defendants who had two



or more prior drug convictions. The result was that one out of three black men could expect to spend time in prison by the 1990s. The racial disparity between whites and blacks under the new rules can be seen in the contrast between this estimate and the estimated one of 17 white men who could expect incarceration (Bonczar 2003; Bonczar and Beck 1997; Lynch 2016: 26).

Congress similarly determined the shape of another crime bill a decade later. President Clinton proposed to allay fears of the crime wave of the 1980s with a bill that would put 100,000 more police on the streets and expand prisons. These punitive measures were offset by a ban on assault weapons and a variety of social programs aimed at crime prevention and social intervention. Clinton's centrist approach gave solace to advocates of both punishment and rehabilitation.

The bill seemed on the way to passage when it was upset by racial conflict. One of the social programs in the bill provided for midnight basketball to occupy errant youth and reduce the danger they posed on the nighttime street. Midnight basketball rapidly became associated with helping black youths and a code word for racial benefits. It raised deeply entrenched images and ideas associating crime with young African American men that heightened the threat of crime and raised serious questions about preventative programs. The social programs were stripped from the bill, and it passed containing only the punitive parts (Wheelock and Hartmann 2007; Raphael and Stoll 2013).

Federal laws were expanded in state laws that ranged from three-strike laws to harsh penalties for possession of small amounts of marijuana. The laws also shifted the judicial process from judges to prosecutors, from the courtroom to offices where prosecutors put pressure on accused people to plea-bargain. The threat of harsh minimum sentences gave prosecutors the option of reducing the charge to a lesser one if the accused is reluctant to languish in jail—if he or she is unable to make bail—and then face the possibility of long years in jail. And the shift of power was eased by the pattern of financing. Prosecutors are paid by localities, while the costs of prisons are borne by states. “Few people in the criminal justice system are as powerful, or as central to prison growth, as the prosecutor. ... Instead of juries and trial judges deciding whether this or that defendant merits punishing, prosecutors decide who deserves a trip to the nearest penitentiary (Stuntz 2011: 286; Pfaff 2017: 127).

Pfaff minimized the role of drug laws in mass incarceration on the grounds that most state prisoners were convicted of violent crimes. Only federal prisoners were predominantly convicted of drug violations. But the importance of public prosecutors and plea bargains contaminates this inference because the listed crimes in state prisons were produced in plea bargains. Since drug laws are so severe, plea bargains were driven toward lesser charges that did not fall under the drug laws. The results of the plea bargains do not indicate why prisoners were originally arrested, and most prisoners who would be freed in a policy shift are not violent people (Pfaff 2017).

The importance of race is visible in many other ways. One example became well known when a defense attorney vividly described attempts by prosecutors in Alabama to pin the murder of a white woman on a black man—the archetypal Southern practice. State officials used many types of illegal procedures to cajole witnesses to place the black man at the scene of the crime until the whole attempt came apart as the suspect's attorney exposed this tawdry

pattern. The suspect spent several years in jail while being prepared for execution until he was finally freed (Stevenson 2014).

The rise in crime during the 1980s cocaine epidemic is shown in Figure 3 by another movement from A to B in Figure 3. (I assumed crime rose as much in the 1980s as in the 1960s for visual simplicity.) And the incarceration curve flattened even more as a result of the Anti-Drug Abuse Act of 1986, rotating clockwise this time around point B. These movements eliminated the equilibrium at A. Other possible causes of the rise in the crime rate did not turn out to be important (Levitt 1996, 1999).

The decline in the slope of the incarceration rate,  $dc/di$ , caused it to intersect the crime rate curve at several places. Only two of these crossings are stable, presenting the United States with a choice of few prisoners or mass incarceration. This curve is labeled  $i3$ , and it is drawn to pass through B as well to reflect the effects of the crack epidemic of the 1980s. There was more crime, represented by a new move to point B, and a further decrease in the slope of the incarceration function. As shown in Figure 1, incarceration began to rise.

The slope of the line  $i3$  is small. Despite an increase in the length of sentences, the reduction in  $r$  was not enough to change the rate of incarceration by itself. The main reason for the falling slope of  $i3$  was due to a change in  $g'(c)$  hidden in the judicial system; the low slope came from the increasing power of public prosecutors. The number of line prosecutors that try cases roughly doubled between 1970 and 2007, while the number of public defenders did not rise. The result was increasing power of public prosecutors who used their power to seek plea bargains; jurisprudence moved from the courtroom to the offices of public prosecutors. Prosecutors used their new power to increase the sensitivity of incarceration to the crime rate, dramatically reducing the slope of  $i3$  (Pfaff 2017: 129).

There now are three places where the two curves intersect. They all represent equilibria, but the middle crossing is unstable. One is to the left of point B with less incarceration than point A. But, as shown in Figure 2, the dynamics of the model push for more incarceration at point B, representing the urge to incriminate more and more. Incarceration increased until it came to rest at the equilibrium far to the right of point B at point C. This is a stable equilibrium, and there was no mention of any program to move from it in the presidential campaign of 2016. This new equilibrium can be seen in the stability of the incarceration rate for the past few years, although we do not yet have as many years of observations at point C like those that showed the stability of the equilibrium at point A. Instead, it is the prediction of this model that we will stay at point C for the foreseeable future.

The crack epidemic and the resulting legislative changes that increased jail times are part of the story of increasing incarceration. But multivariate regressions using cocaine deaths as an index of the epidemic fail to show any effect of the epidemic on the smooth rise in incarceration shown in Figure 1. The effects of policy changes in  $g(c)$  increased the prison population only after delays that smoothed out the curve, making it difficult to identify econometrically a single cause of mass incarceration. The regression results fit the model more closely than the historical narrative it purports to explain (Raphael and Stoll 2013: 195–98).

The model distinguishes a change in the equilibrium from the movements of  $c$  and  $i$ . As just explained, political events and changes in the judicial system in the 1980s changed the

slope of  $g(c)$ , which moved the equilibrium but did not have any discernible effect on the variables until the forces shown in Figure 2 worked for a while. Equations 2 and 4 assert that the approach to a new equilibrium will be faster when it starts further from the equilibrium. The slower growth and the hints of lower prison inmates in recent years represent the slowing down of the rate of incarceration close to the equilibrium.

The disparity in the minimum sentences for crack and powder cocaine were reduced from 100:1 to 28:1 in 2010, when the illegal possession of crack cocaine was increased to 28 grams (1 ounce) by the Fair Sentencing Act of that year. The larger disparity had continued for a quarter century, supported by the backlash from the Civil Rights Movement, Nixon's Southern Strategy, and the belief that black prisoners were inherently criminal—not ordinary people who had done criminal things. The new law reduced the condemnation of blacks without affecting the equilibrium in Figure 3 (Raphael and Stoll 2013: 115–20).

## CONCLUSIONS

Mass incarceration has mushroomed to the point where we look more like the kleptocracies of Eastern Europe and the Middle East than the democracies of Western Europe. Yet it vanished from political discussions in campaigns in the 2016 election. We need to focus on ways to remove the equilibrium at C in Figure 3. The model indicates that it will be hard to dislodge ourselves from the new equilibrium of mass incarceration.

The aim of policies to reduce the rate of incarceration is to increase the slope of  $i3$ —that is,  $r/g'(c)$ . A reduction in the rate at which crime increases incarceration—that is, a movement in  $g'(c)$  that results in a fall in  $g(c)$ —is the most effective policy. A start was made in the Fair Sentencing Act of 2010, but more progress does not look likely any time soon. If  $r/g'(c)$  paralleled line  $i2$  instead of following the current  $i3$  in Figure 3, the equilibrium of mass incarceration at point C would vanish. The dynamics of the model imply that the forces described here would move the penal system toward point A.

Even more important than changing laws to reduce  $g'(c)$  is changing the incentives for public prosecutors to cut plea deals that send accused people to prison. One way is to increase funds for public defenders to link the unopposed actions of prosecutors. Another is to use monetary incentives to induce prosecutors to focus more on serious defendants. And obtaining more data about what happens in the process of plea bargaining can help us to design other levers to ease the urge of prosecutors to incarcerate. “It will not be easy. Reform will require prodigious and sustained effort, at both the grassroots and political elite levels” (Pfaff 2017: 205).

Reducing convictions will be far more important than reducing the length of prison stays in lowering the incarceration rate. Better treatment of ex-felons would enable them to get better jobs, earn a living, and not return to jail as often. And education within prisons, while not as good as education outside, also might help released prisoners to exist legally after release in addition. Drawing back from the draconian guidelines set up in 1986 has been slow and difficult. The Fair Sentencing Act of 2010 reduced sentences for some offences and softened

the racial discrimination, but a more recent attempt to go further in the Sentencing Reform and Corrections Act of 2015 did not pass (Hinton 2018; U.S. Congress 2015–16).

Both political parties were engaged at different times in legislation that gave rise to mass incarceration. It would seem likely that they could get together to try to reduce the rate of incarceration, but the prospects are not good. The reduction of incarceration always has some risks, and political figures are very risk averse. Some people want to reduce the cost of prisons to help fund other activities, but they have not produced many proposals to accomplish this goal or how to allocate the gains.

And the growth of private prisons makes judicial reform harder by adding another interested group to the political process. The number of people housed in private prisons has increased by almost half since 2000, while the total number of prisoners rose only 10%; private prisons now house over 8% of all U.S. prisoners. There are only three large companies operating these prisons, and they give generously to Republican candidates. The Obama administration started to phase out private prisons; the Trump administration reversed this policy. Most public reformers want to reduce the prison population; private prison companies want to increase the prison population. Wardens receive incentives for staying within budgets, but they are not penalized when there is violence or even if prisoners die. The growth of private prisons adds to the difficulty of escaping from the mass incarceration equilibrium (Eisen 2018; Williams 2018; Williams and Oppel 2018).

Larry Krasner, Philadelphia's District Attorney in 2018, implemented a different path to reform: local actions. Krasner instituted a variety of changes in prosecutor actions that have been described as "wild, unprecedented criminal justice reforms." He instructed his 300 Assistant District Attorneys to start their plea bargaining at the lower end of mandatory sentencing guidelines. He told them to decline charges for marijuana possession independent of its weight, to decline charges for sex workers who have two or fewer prior convictions, and to lower retail theft under \$500 to the lowest possible misdemeanor. He provided guidelines for lowering the burden of probation charges and instructed his assistants to consider the cost of incarceration with the claim that one year of unnecessary incarceration is in the range of one year's salary for starting teachers, police officers, and Assistant District Attorneys. Krasner is a pioneer for judicial reform at the level of local enforcement, a promising path that will take a long time to become national even if it is taken up by many other district attorneys (Ewing 2018; Mueller 2018).

Various efforts to reduce the costs of the vicious cycle of prison release, crime, and reincarceration focus on how to treat felons better after their release. One change has to deal with employers' reluctance to hire ex-felons because they do not know if they can trust them. They do not want convicted felons to handle valuable merchandise or to interact with other employees, which might lead to crimes. States also bar ex-felons from many jobs, and the applicants often have low human and social capital (Bushway, Stoll and Weiman 2007).

The interaction of these problems and race has been illuminated by experiments with job applications. Efforts have been made in some states to "ban the box"—that is, to avoid telling employers that the applicant has been in prison. Deprived of this information, potential employers appear to use statistical discrimination. Knowing the racial composition of prisons, they consider that a black job applicant is more likely to be a convicted felon than a

comparable white applicant. Banning the box did not improve prisoners' chance to get a job; instead it changed discrimination on prison history to racial discriminations (Kurlycheck, Brame and Bushway 2006; Pager 2007, Doleac and Hansen 2016).

It took over 30 years to get into our current equilibrium of mass incarceration; we may not be able to get out of it in lesser time. We should support a variety of programs to alleviate the ills of mass incarceration in parallel with efforts to pass legislation that will reduce the American rate of incarceration.

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