The Prison Journal
Supplement to 91(3) 48S–65S

DOI: 10.1177/0032885511415224
http://tpj.sagepub.com

Prisons Do Not Reduce Recidivism: The High Cost of Ignoring Science

Francis T. Cullen[1], Cheryl Lero Jonson[2], and Daniel S. Nagin[3]

Abstract

One of the major justifications for the rise of mass incarceration in the United States is that placing offenders behind bars reduces recidivism by teaching them that "crime does not pay." This rationale is based on the view that custodial sanctions are uniquely painful and thus exact a higher cost than noncustodial sanctions. An alternative position, developed mainly by criminologists, is that imprisonment is not simply a "cost" but also a social experience that deepens illegal involvement. Using an evidence-based approach, we conclude that there is little evidence that prisons reduce recidivism and at least some evidence to suggest that they have a criminogenic effect. The policy implications of this finding are significant, for it means that beyond crime saved through incapacitation, the use of custodial sanctions may have the unanticipated consequence of making society less safe.

Keywords

effect of imprisonment, specific deterrence, prison policy, evidence-based corrections

[1]University of Cincinnati, Cincinnati, OH
[2]Northern Kentucky University, Highland Heights, KY
[3]Carnegie Mellon University, Pittsburgh, PA

Corresponding Author:
Francis T. Cullen, School of Criminal Justice, PO Box 210389, University of Cincinnati, Cincinnati, OH 45221-0389
Email: cullenft@ucmail.uc.edu

On any given day, more than 2.4 million Americans are under some form of imprisonment (Sabol, West, & Cooper, 2009). In more concrete terms, 1 in 100 adults is behind bars; for African Americans the figure is 1 in 11 (Pew Center on the States, 2008). In the early 1970s, the state and federal prison imprisonment rate had remained stable for a half century at about 100 per 100,000 residents (Blumstein & Cohen, 1973), and the inmate population hovered around 200,000. Today, this per-100,000 rate has jumped to more than 500, and those housed in state and federal institutions stands at more than 1.6 million (Sabol et al., 2009). When jail inmates are included, the imprisonment rate is 760. Internationally, these statistics make the United States the world leader in incarceration, locking up 750,000 more individuals than China and 1.5 million more than Russia (World Prison Brief, 2009). The imprisonment rate for European nations is a fraction of America's, with Spain (164) and England and Wales (154) at the high end. Canada, our neighbor to the North, has a rate of 116 (Hartney, 2006; World Prison Brief, 2009). Although the United States accounts for 5% of the world's population, it houses 25% of the 9 million people incarcerated worldwide (Pew Center on the States, 2008)

This numerical litany is recited so often that its statement approaches banality. For many decades now, serious students of crime have been decrying the seemingly intractable growth in the nation's prison population (see, for example, Currie, 1985, 1998). The mass incarceration movement, however, has been deaf to criticism. Most elected officials jumped on board this campaign, either because they welcomed sending offenders to prison or because they were afraid to appear lenient on crime. But perhaps we have arrived at a true turning point in correctional policy. Much as the subprime housing market bubble has burst, we are witnessing signs that the imprisonment bubble is bursting as well. As states struggle to balance public treasuries, they are discovering that prisons are consuming vast sums of tax revenues that might be spent on other government services. Recently in California, then - Governor Schwarzenegger (2010) called for a constitutional amendment that would prohibit spending more on prisons than on the state's colleges. It is instructive that as of January 1, 2010, state prison populations declined for the first time in 38 years (Pew Center on the States, 2010).

In this context, the political space has been created to have a serious conversation about the effective use of prisons. Only the most criminologically ignorant among us would deny that high-risk offenders exist and that, due to their strong criminal propensities, warrant a custodial placement. Nonetheless, it is equally clear that over the past four decades, too many elected officials have enabled their states to binge on imprisonment without weighing the

consequences of doing so—especially for the next generation. We now face the reality of the future that past officials have chosen for us. We cannot leave a similar legacy for those who will follow us.

In this essay, we offer one starting point for such a conversation about making new correctional choices: *the science of the effects of imprisonment.* We recognize that sometimes offenders will be sentenced to prison because the sheer heinousness of their crimes leaves little choice. But the mass use of imprisonment also has been widely justified on the grounds that locking up offenders is a uniquely effective strategy for protecting public safety. This assertion deserves to be scrutinized. Is it rooted in scientific evidence or a reflection of mere hubris? The answer to this question is consequential. If sending offenders to prison does not reduce their criminal involvement, then we should know this fact and be far more judicious in when we employ custodial sanctions. As a number of commentators have argued, correctional policy and practice need to be evidence-based (see, for example, MacKenzie, 2006).

The use of hospitalization is perhaps a useful point of comparison. On any given day, about 540,000 Americans lie in hospital beds. As a society, we are concerned about not sending patients to hospitals who can be treated effectively in the community. Hospital stays are expensive and they carry the risk of exposure to infections. As such, hospital care should be reserved for the most at-risk patients who cannot be otherwise treated elsewhere. Furthermore, for those sent to hospitals, every step should be taken to ensure that iatrogenic (i.e., adverse) effects are avoided.

In a similar manner, we should only use prison when this penalty can be shown to produce better results than noncustodial sanctions. For advocates of imprisonment, they thus must be able to show that placing an offender behind bars not only does not have iatrogenic effects but also makes the person "better"—that is, less likely to reoffend. Advocates assert that prisons are able to have such an effect because they are more costly—painful—to offenders than a "lenient" sentence in the community. They argue, in short, that prisons scare offenders straight—or, in the language of criminologists—have a *specific deterrent effect*. Over the past 3 years, we have probed the effect of imprisonment on reoffending. We readily admit that the existing research is of variable quality and, given the salience of the mass imprisonment issue, in short supply. Still, having pulled together the best available evidence, we have been persuaded that *prisons do not reduce recidivism more than noncustodial sanctions*.

We will immediately soften this bold and unqualified claim—and harden it as well. On the one hand, it may well be possible that when the effect of prison

is fully unpacked., researchers will discover that incarceration has variable effects, leading some categories of offenders to recidivate less often. On the other hand, the overall impact of imprisonment might not simply be null but be iatrogenic; that is, prisons might have a criminogenic effect on those who experience it. Our broad claim here is that, across the offender population, imprisonment does not have special powers in persuading the wayward to go straight. To the extent that prisons are used because of the belief that they reduce reoffending more than other penalty options, then this policy is unjustified. The evidence substantiating this conclusion is presented below.

Before proceeding, we need to note briefly that prisons can reduce the criminal participation of inmates in another way: simply by caging them so that they cannot break the law in the community. This is called *incapacitation*—the amount of crime not committed because offenders are behind bars and thus physically unable to victimize citizens. There is no doubt that there is some incapacitation effect. After all, if 2.4 million offenders are not on the street, much crime would have to be prevented by this fact alone. Estimates of how many offenses are saved vary by individual studies and depend on factors such as the inmates' risk level (high or low) and stage in their criminal career (near the beginning or near the end) (Bushway & Paternoster, 2009; Kleiman, 2009). The key policy question is thus not whether some offenders need to be incapacitated but rather how many and for how long. Furthermore, most estimates of the size of the incapacitation effect inadvertently rig the data in favor of finding such an effect. This is because they compare how many crimes are prevented if offenders are locked up as compared with *doing nothing to them*. Of course, this comparison makes no sense because the alternative to imprisonment would be some noncustodial penalty (Cullen & Jonson, 2012). A more balanced question is whether more crime is saved through incapacitation versus placing offenders in high-quality community treatment programs—and using the thousands of dollars left over to fund crime prevention programs as well.

We also acknowledge that the threat of imprisonment may have a general deterrent effect on the population writ large. A detailed discussion of these effects is beyond the scope of our analysis. However, we can note that recent reviews of the evidence by Durlauf and Nagin (2011, in press) conclude there is scant evidence that further increasing our already long prison sentences would have a general deterrent effect.

In any event, we recognize that a full discussion of how much to use imprisonment—and with whom—will involve a reasoned assessment of the incapacitation and general deterrence effects. Our more limited goal is to consider the equally important issue of what happens to those placed in prison *after they are released into the community*.

Prisons as a Cost Versus an Experience

A key component of get-tough rhetoric is the assertion that throwing offenders behind bars will teach them that crime does not pay. In criminology, this idea is called *rational choice theory*. Its central premise is that people, including offenders, tend to commit less of a behavior as the cost to them increases. For example, as the price of cigarettes or gasoline rises, then people will smoke and drive less often. Not everyone, of course, will stop smoking and driving. But across all people, a general rationality will prevail: Rates of the behavior will decrease as its price increases.

Advocates of the crime-pays idea see imprisonment as central to crime-control policy. But why is this so? Many of the costs offenders suffer occur prior to sentencing—arrest, pretrial detention, having to make bail, public humiliation, payment of legal fees, and worries over when and how their case will be resolved (Feeley, 1979). Furthermore, community-based sanctions can exact substantial costs from offenders. They can be lengthy, involve a high degree of "intensive supervision," mandate electronic monitoring and home confinement, require random drug testing, and stipulate the payment of fines to the court or restitution to victims (Byrne, Lurigio, & Petersilia, 1992; Caputo, 2004). Indeed, surveys of offenders reveal that they are more likely to dread intensive and lengthy community-based punishments than shorter prison terms (e.g., 1 year in prison; see, for example, Moore, May, & Wood, 2008; Petersilia & Deschenes, 1994). These findings complicate the assumption that imprisonment has a unique capacity to scare offenders straight.

Nonetheless, deterrence advocates make this assumption of unique effects. In part, it may be because prison is qualitatively different in that it removes offenders from the community and places them in a total institution. A practical matter is also likely involved: As a sanction, imprisonment is easy to measure. After consulting criminal justice records, scholars can determine who has or has not been sent to prison and, among those incarcerated, can determine who served more time behind bars. Their statistical tests will then enter a variable for custody versus noncustody or for time served. The key point is that deterrence scholars wish to boil down punishment to a simple price tag. The theoretical prediction is that making crime more costly will, similar to the choice of any other product, make the choice of crime less likely. Thus, when offenders are compelled to pay for their crime with a prison sentence—or serve longer rather than shorter terms—they will be less likely to recidivate.

By contrast, most criminologists reject the idea that the extended *experience* of imprisonment can be adequately captured in terms of a simple price tag or a cost. Such an approach truncates reality. When offenders are incarcerated,

they enter a "prison community" (Clemmer, 1940) or a "society of captives" (Sykes, 1958). For a lengthy period of time, they associate with other offenders, endure the pains of imprisonment, risk physical victimization, are cut off from family and prosocial contacts on the outside, and face stigmatization as "cons." Imprisonment is thus not simply a cost to be weighed in future offending but, more important, a social influence that shapes inmates' attitudes toward crime and violence, peer networks, ties to the conventional order, and identity.

Most criminologists would predict that, on balance, offenders become more, rather than less, criminally oriented due to their prison experience. In academic language, they would argue that imprisonment increases exposure to criminogenic risk factors. These would include differential associations with offenders in a "school of crime," enduring noxious strains, having conventional social bonds severed, and facing stigmatizing labels that foster anger and a sense of defiance. Even if inmates might wish to avoid prisons in the future, they reenter society harboring an intensified, if not overpowering, propensity to offend.

We have, then, two diametrically opposed views about the effect of imprisonment on recidivism. Deterrence theory predicts that prisons increase the cost of offending and thus reduce recidivism. Social experience theory predicts that prisons increase criminal propensity and thus increase recidivism. Oddly, these two competing views have not been subjected to a wealth of rigorous empirical analyses. Nonetheless, some relevant research can be cited in attempt to decipher which theory is more accurate.

The Failure of Prisons

One way to assess the capacity of prisons to reduce reoffending is to inspect rates of recidivism. If such rates are high—if numerous offenders return to crime—then this finding would call into question specific deterrence theory. Of course, even with high recidivism rates, custodial sanctions might stop more crime than noncustodial sanctions. Still, if a high proportion of inmates reoffend, this would be like saying that a high proportion of hospital patients are not cured of their ailments. Given the inordinate investment of resources that 24/7 care in a total institution requires, the efficacy of prisons—or hospitals—would be problematic.

In fact, the news for prisons is not promising. In one of the most sophisticated assessments of recidivism, Langan and Levin (2002) traced the criminal involvement of state prisoners released in 1994 (for similar results, see Beck & Shipley, 1989). Within 3 years of release, 67.5% of the prisoners were rearrested

for a new offense, 46.9% were reconvicted for a new crime, and 25.4% were resentenced to prison. Notably, within 3 months of release, roughly 30% of the inmates had been rearrested. For the sample, Langan and Levin also examined the rate of return to prison for either new crimes or technical violations, discovering that 51.8% ended up back behind bars. Furthermore, these figures surely underestimate the extent to which these prisoners recidivated because they include only those cases in which officials detected a releasee committing a crime.

These findings are inconsistent with prisons as a powerful specific deterrent. Remember, prisons are not a mild or temporary behavioral incentive—such as glancing at a price tag when deciding to purchase a coat or cell phone. Rather, the cost of imprisonment is imposed on offenders daily and for months, if not for years, on end. Despite this reality, prisons appear to be a weak change agent. Indeed, high recidivism rates suggest that many offenders simply are not moved by imprisonment to stay out of trouble.

Five Illustrative Studies

In recent years, criminologists have become increasingly interested in whether contact with the justice system (and not simply prisons) makes offenders more or less criminal (see, for example, Sherman, 1993). These studies typically test specific deterrence theory against labeling theory—a perspective that hypothesizes that such contact has the ironic and unanticipated effect of increasing offenders' criminal propensity by stigmatizing them, cutting their family bonds, increasing their association with other offenders, and reducing their employment opportunities. Notably, this newer body of research is tilting decidedly in favor of labeling theory.

For example, Chiricos, Barrick, Bales, and Bontrager (2007) examined a Florida law that allowed judges that sentenced felons to probation to withhold a formal adjudication of guilt, with the record of arrest vanishing if probation was successfully completed. In essence, this allowed for a natural experiment in which some offenders received a felony label whereas others did not. Based on a study of 95,919 men and women over 2 years, they discovered that those who received a formal label were more likely to recidivate. Similarly, data from the Rochester Youth Survey show that formal criminal labeling—juvenile justice intervention—was associated with increased unlawful conduct both in the short term and into adulthood (Bernberg & Krohn, 2003; Bernberg, Krohn, & Rivera, 2006; see also Gatti, Tremblay, & Vitaro, 2009). Furthermore, in a review of 29 controlled trials conducted for The Campbell Collaboration, Petrosino, Turpin-Petrosino, and Guckenburg (2010) found that juvenile justice

system processing "does not appear to have a crime control effect. In fact, almost all of the results were negative" (p. 6).

Taken together, these findings create doubt about the ability of criminal penalties to function as a cost that, when imposed, dissuades offenders from recidivating. Again, these sanctions risk disrupting conventional relationships and pushing offenders into more antisocial contexts. Still, we need to address the more significant issue of whether, despite their potential problems, custodial sanctions can be shown to have a specific deterrent effect. In this section, we thus consider five important studies. We used three criteria in deciding which investigations to highlight. First, the studies had to be of the highest quality so that their findings could not be attributed to methodological bias. Second, the studies had to approach the issue of prison effects from different angles so that their findings could not be attributed to the use of a particular methodological strategy. And third, the studies had to be conducted in different times and/or places so that their findings could not be attributed to a specific social context. Collectively, these five works illustrate the limits of incarceration as a crime-control strategy. In the next section, we will consider systematic reviews of evidence on this topic. A similar conclusion will be reached.

We begin with the classic study by Sampson and Laub (1993) published in *Crime in the Making*. Reanalyzing the Gluecks' data, they examined how length of incarceration as a juvenile and adult influenced offending. They found no direct effects, leading them to note that "these results would seem to suggest that incarceration is unimportant in explaining crime over the life course" (p. 165). Such a conclusion, however, would be misleading. As Sampson and Laub point out, controlling for criminal propensity, time incarcerated substantially lessened job stability, which in turn affected recidivism. Phrased differently, imprisonment had strong indirect criminogenic effects. "Perhaps the most troubling aspect of our analysis," conclude Sampson and Laub, "is that the effects of long periods of incarceration appear quite severe when manifested in structural labeling—many of the Glueck men were simply cut off from the most promising avenues of desistance from crime" (pp. 255-256; see Wimer, Sampson, & Laub, 2008).

Second, Cassia Spohn and David Holleran (2002) examined 1993 data from offenders convicted of felonies in Jackson County, Missouri (which contains Kansas City). Following subjects for 48 months, they compared the recidivism rates of 776 offenders placed on probation versus 301 offenders sent to prison. Their message was straightforward: "We find no evidence that imprisonment reduces the likelihood of recidivism" (p. 329). Indeed, they found that being sent to prison was associated with increased recidivism and that those incarcerated reoffended more quickly than those placed on probation.

Furthermore, they discovered that the criminogenic effect of prison was especially high for drug offenders, who were 5 to 6 times more likely to recidivate than those placed on probation.

Third, Smith and Gendreau (2010; see also Smith, 2006) also reveal that imprisonment might have differential effects on offenders. For 2 years, they followed a sample of 5,469 male offenders serving time in Canadian federal penitentiaries. Notably, these institutions had a commitment to rehabilitating offenders. Their analysis showed that for high-risk offenders, the impact of imprisonment varied by whether inmates received appropriate rehabilitation (which reduced recidivism) or inappropriate treatment (which increased recidivism) (for a discussion of appropriate treatment, see Andrews & Bonta, 2010). Most telling, regardless of the type of programming received, low-risk offenders were negatively impacted by incarceration, experiencing inflated recidivism rates.

Fourth, Nieuwbeerta, Nagin, and Blokland (2009) used data from the Criminal Career and Life-Course Study, which is based in the Netherlands. They studied 1,475 men who were imprisoned for the first time between ages 18 and 38. The focus on first-time imprisonment was innovative because it avoided the problem of discerning the effects of current as opposed to past incarceration experiences. The comparison group included 1,315 offenders who were convicted but not imprisoned. To minimize problems of selection bias, Nieuwbeerta et al. used a sophisticated methodology (i.e., group-based trajectory modeling combined with risk-set matching). Over a 3-year follow-up period, they reported that "first-time imprisonment is associated with an increase in criminal activity"—a finding that held across offense type (p. 227). We should add that these results are important because they occurred in a nation where the conditions of confinement are less harsh than in the United States and for a sample where the mean stay in prison was only 14 weeks (and only 1% of the sample served more than 1 year). It is possible that the effects of imprisonment might be stronger in the United States or that any form of imprisonment is so disruptive as to have untoward consequences.

Fifth, Nagin and Snodgrass (2010) recently took advantage of a system used in Pennsylvania (and in other states) whereby offenders are randomly assigned to judges. Research on the effect of incarceration on recidivism based on nonexperimental data may be biased because those sent to prison may differ from those not sent to prison in systematic ways even with extensive statistical controls. Such hidden bias may then distort the results. To avoid this potential problem, Nagin and Snodgrass capitalized on the random assignment of cases to judges in Pennsylvania—judges who differed in their harshness. This allowed Nagin and Snodgrass to compare the recidivism of the caseloads

of judges with very different propensities to send convicted defendants to prison or jail. If incarceration specifically deterred, then the recidivism rates of the caseloads assigned to harsh judges should have been lower than the caseloads assigned to more lenient judges. But this did not occur. The analysis revealed no differences in the recidivism of caseloads across judges.

These studies thus illustrate how, across various contexts and methodologies, scholars have investigated the effect of imprisonment. In the least, they suggest that incarcerating offenders is not a magic bullet with special powers to invoke such dread that offenders refrain from recidivating when released. If anything, it appears that imprisonment is a crude strategy that does not address the underlying causes of recidivism and thus that has no, or even criminogenic, effects on offenders. As we see below, systematic reviews of all available studies tend to confirm this conclusion.

Systematic Reviews of Evidence

A systematic review attempts to examine a number of studies so as to provide an overall assessment of how some factor—in this case, imprisonment—affects criminal involvement. Gendreau, Goggin, Cullen, and Andrews (2000) undertook one of the first of these reviews, concluding that "clearly, the prison deterrent hypothesis is not supported" (p. 13). Across all comparisons, they found that incarceration resulted in a 7% increase in recidivism compared with a community sanction. They also examined the weighted effect size; this is a statistic that takes into account the size of each study and gives more "weight" to the findings computed on larger as opposed to smaller samples. In this analysis, the impact of a custodial sanction was not criminogenic, with the effect falling to zero. Nonetheless, there was still no evidence that sentencing offenders to prison reduced recidivism. A subsequent extension of this research by Smith, Goggin, and Gendreau (2002) reached similar results—with one important exception. They discovered that when the analysis focused on studies with high-quality research designs, the criminogenic effect associated with imprisonment jumped to 11%. Even when the weighted mean effect size was calculated, the iatrogenic effect of imprisonment remained, with custodial sanctions associated with an 8% increase in recidivism.

In a more extensive consideration of the literature, Villettaz, Killias, and Zoder (2006) investigated 23 studies that included 27 comparisons of custodial versus noncustodial sanctions. Custodial sanctions were associated with reduced recidivism only twice, with increased recidivism for 11 comparisons, and with no difference for 14 comparisons. A subsequent "meta-analysis based on four controlled and one natural experiment" revealed "no significant

difference" between custodial and noncustodial sanctions. In the least, these findings again suggest no clear specific deterrent effect of imprisonment. Notably, a similar review by Nagin, Cullen, and Jonson (2009) examined 6 experimental/quasi-experimental, 11 matching, and 31 regression-based studies. They echoed Villettaz et al.'s call for more rigorous studies. They also concluded that incarceration has a null or slight criminogenic effect on recidivism.

Finally, in the most systematic review, Jonson (2010) meta-analyzed 57 studies. She discovered that, overall, the impact of a custodial versus a noncustodial sanction was slightly criminogenic, increasing recidivism 14%. When Jonson limited her assessment to studies of the highest methodological quality, the effect size for custodial sanctions was reduced but still criminogenic, boosting reoffending 5%. Furthermore, she examined a limited number of studies that explored whether harsher prison conditions were associated with lower reduction (see, for example, Chen & Shapiro, 2007). Inconsistent with deterrence theory, harsher conditions were associated with increased recidivism.

Again, we must caution that despite the mass usage of imprisonment, the research in this area is not extensive or of high quality. Precise estimates of prison effects are not possible, and more work is needed to unpack whether the prison experience has differential impacts on offenders of varying characteristics. Nonetheless, when all sources of information are taken into account, the weight of the evidence falls clearly on one side of the issue: Placing offenders in prison does not appear to reduce their chances of recidivating.

Conclusion: The High Cost of Ignoring Science

Imagine a medical system in which very sick and mildly sick patients are hospitalized with virtually no idea of whether they will emerge cured, terminally ill, or unchanged. Theories abound, however. On one side, we have those arguing that hospitals make patients less ill than if left in the community. On the other side, we have those arguing that hospitals expose patients to disease risk factors (e.g., infections from other patients). Research trying to decipher which view was correct is widely scattered and, with a few exceptions, of poor quality. But this does not cause too many doubts about the practice of mass hospitalization. Those institutionalizing sick patients claim that they have a "gut-level feeling" that hospitalization has curative effects. After all, they know a bunch of patients who reentered the community and did not get sick again. They do not need to consult any scientific studies to know that hospitals reduce repeated illness.

If this situation were to occur, the public would call those in the medical profession quacks, file endless lawsuits for malpractice, and demand studies to prove which interventions were safe or unsafe. But if we were to substitute the word "imprisonment" for "hospitalization" in the previous paragraph, we would be roughly describing the current use of prisons and of correctional policy.

The era of mass imprisonment has taken over corrections *even though nobody has had a firm idea of whether placing offenders behind bars makes them more or less likely to recidivate*. To be sure, hubris has not been in short supply. We include criminologists in this critique because, with little data at their disposal, they often have claimed that prisons are criminogenic. But they are the least of the problem; few people listen to them—or should I say "us"! Most important, they do not have power over other people's lives. By contrast, many policy makers and judges, showing equal hubris, have made bold claims about prisons' specific deterrent effect when taking actions that matter a great deal—that is, when placing offenders in custody for years, if not decades. They have perhaps acted on the heartfelt belief that they were protecting victims and the public. Even so, we should all realize that things that seem "obvious" to us—especially views based on so-called commonsense—can be incorrect. In the end, it is essential to test our understandings, including those about prisons, with the best scientific data available. And depending on what the evidence tells us, we need to have the intellectual and moral courage to change our minds and our policies.

We recognize, of course, that the decision to incarcerate is complex, involving the seriousness of the act, the past record and culpability of the offender, and community values that may wish some crimes to be harshly punished. Nonetheless, *science should be one factor that is considered in sentencing policy*. When formulating public policy, officials should know clearly whether imprisoning offenders will make them more or less criminal upon their return to society. Without such knowledge, ignorance reigns, and the risk rises that prison policies will needlessly endanger community safety, drain the public treasury, and entrap offenders in a life in crime. There is, in short, a high cost for ignoring the science of prison effects (see also Van Voorhis, 1987).

This article is rooted in the belief that correctional policy and practice should be evidence-based. We reiterate our observation that it is inexplicable that we place so many Americans behind bars and have only a weak scientific understanding of the effect of imprisonment. If nothing else, we trust we have exposed this instance of correctional quackery and will inspire efforts to correct it through high-quality research (Latessa, Cullen, & Gendreau, 2002).

In the interim, our review of the evidence does allow for a provisional assessment of the likely effects of imprisonment on recidivism. Three observations, based on the existing science, are possible:

- *With some confidence, we can conclude that, across all offenders, prisons do not have a specific deterrent effect.* Custodial sentences do not reduce recidivism more than noncustodial sanctions.
- *With less confidence, we can propose that prisons, especially gratuitously painful ones, may be criminogenic.* On balance, the evidence tilts in the direction of those proposing that the social experiences of imprisonment are likely crime generating.
- *Although the evidence is very limited, it is likely that low-risk offenders are most likely to experience increased recidivism due to incarceration*. From a policy perspective, it is essential to screen offenders for their risk level and to be cautious about imprisoning those not deeply entrenched in a criminal career or manifesting attitudes, relationships, and traits associated with recidivism.

For policy makers, these findings should be sobering and inspire a willingness to know more about the science of imprisonment. We need to take a giant collective step backward and understand that imprisonment is not a panacea for the crime problem. As with any other human-made social institution, it has its functions and its limitations. It likely does a good job exacting justice on those who have inflicted serious harm on others and of warehousing the truly wicked. But it also seems that as an instrument for changing offenders for the better—for persuading them to avoid future crime—it is without much value.

It is beyond the scope of this essay to discuss in detail potential alternatives to the use of prison as the lynchpin of the nation's effort to control crime. But we can end with three important observations. First, policy makers and judges must forfeit the belief that imprisonment is the only sanction that punishes offenders—that all other penalties are tantamount to defendants "getting off easy." As surveys of offenders show, community-based sanctions are experienced as punitive and impose social and financial costs on offenders (Moore et al., 2008; Petersilia & Deschenes, 1994). Prisons have no special powers to scare offenders straight. They should be a sanction of last resort, not first resort.

Second, when high-risk, serious offenders are within the grasp of the correctional system—including while they are incarcerated—sound policy would demand subjecting them to evidence-based rehabilitation programs. These interventions have been shown to reduce recidivism and thus to be an

important tool in protecting public safety (Andrews & Bonta, 2010; MacKenzie, 2006). The American public, moreover, strongly supports a correctional system that embraces rehabilitation as one of its core goals (Cullen, Fisher, & Applegate, 2000).

Third, the investment of extraordinary resources in mass imprisonment has diverted money and attention from other policies that might prevent substantial amounts of crime, including in high-crime, inner-city areas. These include situational crime prevention programs that seek to reduce opportunities to offend (e.g., use of alarms, surveillance cameras, and guardians over property or potential victims), problem-oriented policing that encourages officers to know where and why crimes are concentrated and to develop proactive strategies to solve this "problem," and early intervention efforts that seek to identify at-risk youths and to work with families, peers groups, and schools so as to divert these youngsters from a criminal career (Durlauf & Nagin, 2011, in press Farrington & Welsh, 2007; Felson & Boba, 2010; Kleiman, 2009; Waller, 2006). A wise approach to crime control thus would be broad based and have a clear appreciation—given the rigorous scientific evidence now available—for the limits of what imprisonment can accomplish.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

Andrews, D. A., & Bonta, J. (2010). *The psychology of criminal conduct* (5th ed.). New Providence, NJ: Anderson/LexisNexis.

Bernburg, J. G., & Krohn, M. D. (2003). Labeling, life chances, and adult crime: The direct and indirect effects of official intervention in adolescence on crime in early adulthood. *Criminology*, *41*, 1287-1318.

Bernburg, J. G., Krohn, M. D., & Rivera, C. J. (2006). Official labeling, criminal embeddedness, and subsequent delinquency: A longitudinal test of labeling theory. *Journal of Research in Crime and Delinquency*, *43*, 67-88.

Blumstein, A., & Cohen, J. (1973). A theory of the stability of punishment. *Journal of Criminal Law and Criminology*, *64*, 198-206.

Beck, A. J., & Shipley, B. E. (1989). *Recidivism of prisoners released in 1983*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.

Bushway, S. D., & Paternoster, R. (2009). The impact of prison on crime. In S. Raphael & M. A. Stoll (Eds.), *Do prisons make us safer? The benefits and costs of the prison boom* (pp. 119-150). New York: Russell Sage.

Byrne, J. M., Lurigio, A. J., & Petersilia, J. (Eds.). (1992). *Smart sentencing: The emergence of intermediate sanctions*. Newbury Park, CA: SAGE.

Caputo, G. A. (2004). *Intermediate sanctions in corrections*. Denton: University of North Texas Press.

Chen, M. K., & Shapiro, J. M. (2007). Do harsher prison conditions reduce recidivism? A discontinuity-based approach. *American Law and Economic Review*, *9*, 1-29.

Chiricos, T., Barrick, K., Bales, W., & Bontrager, S. (2007). The labeling of convicted felons and its consequences for recidivism. *Criminology*, *45*, 547-581.

Clemmer, D. (1940). *The prison community*. New York: Rinehart.

Cullen, F. T., Fisher, B. S., & Applegate, B. K. (2000). Public opinion about punishment and corrections. In M. Tonry (Ed.), *Crime and justice: A review of research* (Vol. 14, pp. 1-79). Chicago: University of Chicago Press.

Cullen, F. T., & Jonson, C. L. (2012). *Correctional theory: Context and consequences*. Thousand Oaks, CA: SAGE.

Currie, E. (1985). *Confronting crime: An American challenge*. New York: Pantheon.

Currie, E. (1998). *Crime and punishment in America*. New York: Metropolitan Books.

Durlauf, S. N., & Nagin, D. S. (2011). Imprisonment and crime: Can both be reduced? *Criminological and Public Policy, 10,* 13-54.

Durlauf, S. N., & Nagin, D. S. (in press). The deterrent effect of imprisonment. In P. J. Cook, J. Ludwig, & J. McCrary (Eds.), *Controlling crime: Strategies and tradeoffs.* Chicago: University of Chicago Press.

Farrington, D. P., & Welsh, B. C. (2007). *Saving children from a life in crime: Early risk factors and effective interventions*. New York: Oxford University Press.

Feeley, M. M. (1979). *The process is the punishment: Handling cases in a lower criminal court* New York: Russell Sage.

Felson, M., & Boba, R. (2010). *Crime and everyday life* (4th ed.). Thousand Oaks, CA: SAGE.

Gatti, U., Tremblay, R. E., & Vitaro, F. (2009). Iatrogenic effect of juvenile justice. *Journal of Child Psychology and Psychiatry*, *50*, 991-998.

Gendreau, P., Goggin, C., Cullen, F. T., & Andrews, D. A. (2000). The effects of community sanctions and incarceration on recidivism. *Forum on Corrections Research*, *12*(May), 10-13.

Hartney, C. (2006). *U.S. rates of incarceration: A global perspective*. Oakland, CA: National Council on Crime and Delinquency.

Jonson, C. L. (2010). *The impact of imprisonment of reoffending: A meta-analysis*. Unpublished doctoral dissertation, University of Cincinnati, OH.

Kleiman, M. A. (2009). *When brute force fails: How to have less crime and less punishment*. Princeton, NJ: Princeton University Press.

Langan, P. A., & Levin, D. J. (2002). *Recidivism of prisoners released in 1994*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.

Latessa, E. J., Cullen, F. T., & Gendreau, P. (2002). Beyond correctional quackery: Professionalism and the possibility of effective treatment. *Federal Probation*, *66*(2), 43-49.

MacKenzie, D. L. (2006). *What works in corrections: Reducing the criminal activities of offenders and delinquents*. Cambridge, UK: Cambridge University Press.

Moore, N. T., May, D. C., & Wood, P. B. (2008). Offenders, judges, and officers rate the relative severity of alternative sanctions compared to prison. *Journal of Offender Rehabilitation*, *46*(3-4), 49-70.

Nagin, D. S., Cullen, F. T., & Jonson, C. L. (2009). Imprisonment and reoffending. In M. Tonry (Ed.), *Crime and justice: A review of research* (Vol. 38, pp. 115-200). Chicago: University of Chicago Press.

Nagin, D. S., & Snodgrass, G. M. (2010). *The effect of incarceration on recidivism*. Paper presented at the annual meeting of the American Society of Criminology, San Francisco.

Nieuwbeerta, P., Nagin, D. S., & Blokland, A. A. (2009). The relationship between first imprisonment and criminal career development: A matched samples comparison. *Journal of Quantitative Criminology*, *25*, 227-257.

Petersilia, J., & Deschenes, E. P. (1994). Perceptions of punishment: Inmates and staff rank the severity of prison versus intermediate sanctions. *Prison Journal*, *74,* 306-328.

Petrosino, A., Turpin-Petrosino, C., & Guckenburg, S. (2010). *Formal system processing of juveniles: Effects on delinquency*. Oslo, Norway: The Campbell Collaboration.

Pew Center on the States. (2008). *One in 100: Behind bars in America 2008.* Washington, DC: Pew Charitable Trusts.

Pew Center on the States. (2010). *Prison count 2010: State population declines for the first time in 38 years.* Washington, DC: Pew Charitable Trusts.

Sabol, W. J., West, H. C., & Cooper, M. (2009). *Prisoners in 2008*. Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.

Sampson, R. J., & Laub, J. H. (1993). *Crime in the making: Pathways and turning points through life*. Cambridge, MA: Harvard University Press.

Schwarzenegger, A. (2010). *Governor Schwarzenegger delivers 2010 State of the State Address*. Sacramento, CA: Office of the Governor. Retrieved January 7, 2010, from http://gov.ca.gov/speech/14118/

Sherman, L. W. (1993). Defiance, deterrence, and irrelevance: A theory of the criminal sanction. *Journal of Research in Crime and Delinquency*, *30*, 445-473.

Smith, P. (2006). *The effects of incarceration on recidivism: A longitudinal examination of program participation and institutional adjustment in federally sentenced adult male offenders*. Unpublished doctoral dissertation, University of New Brunswick, Canada.

Smith, P., & Gendreau, P. (2010). *A longitudinal examination of inmate behavior and program activities on institutional adjustment and recidivism*. Unpublished paper, University of Cincinnati, OH.

Smith, P., Goggin, C., & Gendreau, P. (2002). *The effects of prison sentences and intermediate sanctions on recidivism: General effects and individual differences*. Ottawa, Ontario, Canada: Solicitor General of Canada.

Spohn, C., & Holleran, D. (2002). The effect of imprisonment on recidivism rates of felony offenders: A focus on drug offenders. *Criminology*, *40*, 329-347.

Sykes, G. M. (1958): *The society of captives: A study of a maximum security prison*. Princeton, NJ: Princeton University Press.

Van Voorhis, P. (1987). Correctional effectiveness: The high cost of ignoring success. *Federal Probation*, *51*(1), 59-62.

Villettaz, P., Killias, M., & Zoder, I. (2006). *The effects of custodial vs. noncustodial sentences on re-offending: A systematic review of the state of knowledge*. Philadelphia: The Campbell Collaboration Crime and Justice Group.

Waller, I. (2006). *Less law, more order: The truth about reducing crime*. Westport, CT: Praeger.

Wimer, C., Sampson, R. J., & Laub, J. H. (2008). Estimating time-varying causes and outcomes, with application to incarceration and crime. In P. Cohen (Ed.), *Applied data analytic techniques for turning points research* (pp. 37-59). New York: Routledge.

World prison brief. (2009). London: King's College London, International Centre for Prison Studies.

Bios

Francis T. Cullen is Distinguished Research Professor of Criminal Justice and Sociology, University of Cincinnati. His recent works include *Unsafe in the Ivory Tower: The Sexual Victimization of College Women*, the *Encyclopedia of Criminological Theory*, and *Correctional Theory: Context and Consequences.* His current research areas include the organization of criminological knowledge and rehabilitation as a correctional policy. Past president of both the American Society of Criminology and the Academy of Criminal Justice Sciences, he was recently honored with ASC's Edwin H. Sutherland Award.

Cheryl Lero Jonson is assistant professor, Department of Political Science and Criminal Justice, Northern Kentucky University. Her publications include *Correctional Theory: Context and Consequences*, and *The Origins of American Criminology*. Her current research interests include the impact of prison on recidivism, sources of inmate violence, and the use of meta-analysis to organize criminological knowledge.

Daniel S. Nagin is Teresa and H. John Heinz III University Professor of Public Policy and Statistics in the Heinz College, Carnegie Mellon University. An elected fellow of both the American Society of Criminology and the American Society for the Advancement of Science, he received the 2006 American Society of Criminology Edwin H. Sutherland Award. His research focuses on the evolution of criminal and antisocial behaviors over the life course, the deterrent effect of criminal and noncriminal penalties on illegal behaviors, and the development of statistical methods for analyzing longitudinal data. His writings include *Group-based Modeling of Development* (Harvard University Press, 2005) and extensive journal publications.