Reducing Crime by Shrinking the Prison Headcount

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The punishment of offenders is intended (among other purposes) to control crime. Yet the current situation in the U.S. combines high crime and high punishment. Large increases in punishment have been followed by comparatively modest decreases in crime: as incarceration has quintupled, crime has merely halved.[1] *Since the punitiveness of the system—as measured by the expected value of punishment per crime committed—depends on the ratio between punishment and crime, punitiveness has increased by something like an order of magnitude.*

The failure of such a drastic increase in punitiveness to produce a corresponding decrease in crime presents a puzzle: if punishment prevents crime, how is it that we find ourselves saddled with so much crime despite handing out so much punishment? Of more practical interest, what can be done to shrink both the crime rate and the prison population? This paper proposes both an analysis of that explanatory question and a set of policies based on that answer and designed to reduce both crime and incarceration, and to do so over a period measured in years rather than decades.

We have too much crime and too much punishment because we use punishment badly,[2] *in ways that both neglect what we know about how individuals react to punitive threats and also ignore both the risks and the uses of positive feedbacks. The principles of cost-effective crime control can be expressed as "Five C's": Certainty and Celerity of punishment (rather than severity); dynamic Concentration of punitive resources on subsets of offenders and offenses; the direct Communication of deterrent threats to those whose problematic behavior we seek to change, and the maintenance of the Credibility of those threats by relentlessly delivering the promised sanctions.*

It hardly needs saying that the success of the proposed policies would depend not only on the accuracy of the underlying analysis but

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[1] *See Key Facts at a Glance: National Crime Victimization Survey Violent Crime Trends, 1973-2008,* BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, bjs.ojp.usdoj.gov/content/glance/tables/viortrdtab.cfm (last revised Oct. 15, 2011); *see also Key Facts at a Glance: Adult Correctional Populations,* BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, bjs.ojp.usdoj.gov/content/glance/corr2.cfm (last revised Oct. 15, 2011).

[2] NICCOLÒ MACHIAVELLI, THE PRINCE 41–42 (James B. Atkinson trans., 1976) (1532).

also on the diligence and skill with which they were implemented. One explanation for why more effective policies have not yet been widely implemented is that they are administratively difficult, involving in many cases cooperation not merely across agencies but across branches and levels of government.

I. JUSTICE ALITO'S QUESTION

In the oral argument in *Schwarzenegger v. Plata*, the California prison-conditions case where a Federal District Court ordered a prisoner release as a remedy for unconstitutional conditions of incarceration, Justice Alito demanded of the prisoners' lawyer: "If 40,000 prisoners are going to be released, you really believe that if you were to come back here two years after that, you would be able to say, they haven't . . . contributed to an increase in crime in the State of California?"[3]

Clearly, Justice Alito thought that the answer to his question was obvious. In fact, it is not. Or, rather, there is an obvious answer, but that answer is obviously unhelpful: "It depends." It depends upon which prisoners are released or not admitted (or re-admitted) to prison, on how those prisoners are supervised in the community, and on the extent of the cost savings and—more importantly—on how those funds are used.

If we adopt the standard, though morally dubious, convention that crimes committed within prison don't "count" as part of the statewide crime rate, then of course the effect of keeping fewer prisoners on crimes by those prisoners must be positive: while behind bars they cannot commit any crimes that count under the conventional scoring system, and some of them will commit crimes if not confined. But if the funds that would otherwise have been used for incarceration are spent instead on other crime-reduction measures—improving community supervision, for example—then the net effect of the release is ambiguous: crime will go up only if crimes by those not incarcerated exceed in number the crimes prevented by better supervision.

Thus reducing the number of prisoners could easily reduce crime overall. This paper will sketch the outlines of a system that, compared to current practices, would reduce both crime and incarceration.

II. ASSUMPTIONS AND ANALYTIC APPROACH

The background moral assumption of this analysis is that punishment, like crime, is an evil, not a good; a cost, not a benefit. Crime and punishment alike are

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[3] *Brown v. Plata: U.S. Supreme Court Case Summary and Oral Argument*, THE OYEZ PROJECT (2010), http://www.oyez.org/cases/2010-2019/2010/2010_09_1233/argument (*Plata v. Schwarzenegger*, 603 F. 3d 1088 (9th Cir. 2010) and *Coleman v. Schwarzenegger*, 2009 WL 2439820 (E.D. California, N.D. California Aug. 4, 2009) were consolidated to *Brown v. Plata*, 131 S. Ct. 1910 (2011)).

sources of economic cost (both public and private) and of personal suffering (by victims and those who care about them and by offenders and those who care about them). Therefore, both are to be minimized: other things equal, we should aim to get as much crime reduction as possible out of any given level of punishment and to achieve any given level of crime with as little punishment as possible. From this perspective, the recent success in crime reduction has been achieved at an intolerable, and perhaps unsustainable, cost: the incarceration of one percent of the adult population at any one time, a rate of imprisonment utterly out of line with the historical practice of the United States before 1980 and with the current practice of any country to which we would like to compare ourselves.[4] Mass incarceration has become a social problem on the same level as crime itself.[5]

The background factual assumption is that crime is a genuine problem of substantial magnitude and not a mere social construction, and that a serious policy to reduce the level of punishment should, on substantive as well as political grounds, pay close attention to crime control, especially in light of the extraordinarily high rates of crime that afflict poor and minority communities.[6]

The analytic approach taken here is non-standard because it engages two nearly opposite disciplinary traditions in considering two aspects of the relationship between crime and punishment. At the individual level, the basic claim is that a system of randomly Draconian punishments under-performs for two reasons anticipated by Beccaria nearly three centuries ago and explicated by the emerging field of "behavioral economics."[7] Most offenders (like most other people, but perhaps to a greater-than-average extent) undervalue uncertain losses as compared to certain losses, and in particular, undervalue modest-sized probabilities of large disasters, accepting gambles with negative expected utility if the outcome of the gamble consists of a high probability of a small gain and a small probability of a large loss.[8] Moreover, they undervalue the future—even the not-very-distant future—compared to the present.[9] A system of occasionally severe punishments in the form of long prison terms will do poorly in controlling people who behave in those ways compared to a system that handed out the same amount of punishment in more and smaller chunks, and did so promptly. Thus, as Beccaria asserted, the deterrent value of a punishment depends more on its

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[4] PEW CENTER ON THE STATES, ONE IN 100: BEHIND BARS IN AMERICA 2008, at 3 (2008), *available at* http://www.pewcenteronthestates.org/uploadedFiles/One%20in%20100.pdf.

[5] *See* Bruce Western & Becky Pettit, *Incarceration & Social Inequality*, DAEDALUS, Summer 2010, at 8, 16.

[6] *See generally* MICHELLE ALEXANDER, THE NEW JIM CROW (2010); ANGELA Y. DAVIS, ARE PRISONS OBSOLETE? (Greg Ruggiero ed., 2003); Loïc Wacquant, *Class, Race & Hyperincarceration in Revanchist America*, DAEDALUS, Summer 2010, at 74, 77–79.

[7] CESARE BECCARIA, ON CRIMES AND PUNISHMENTS (David Young trans., 1986) (1764).

[8] *See* Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263, 268–69 (1979).

[9] George Ainslie, *Derivation of "Rational" Economic Behavior from Hyperbolic Discount Curves*, AM. ECON. REV., May 1991, at 334, 334–35.

certainty and its celerity than on its severity.[10] But while severity is easy to achieve—by imposing longer sentences and requiring that larger fractions of them be completed before an offender is released—certainty and celerity are much more difficult to achieve.

The other side of the story considers what happens when a limited capacity to punish must be allocated over a group of offenders. As long as the threat of punishment is somewhat effective in reducing the rate of violation—which is consistent with, but need not depend on, full economic rationality among potential offenders—then offenders' decision-making is interdependent. Punishment scarcity builds a positive-feedback mechanism into rates of rule breaking: as long as the capacity to punish rises and falls less swiftly than the rate of violations, the risk facing each offense or offender will tend to fall as the number of offenses or offenders rises, and conversely to rise as offense rates fall. Thus a situation with much punishment in total may not involve much punishment per offense.

The way out of such an "enforcement swamping" situation, where the volume of offenses becomes self-sustaining because it overwhelms the system, is to issue convincing threats to (at first) a subset of offenders.[11] If the threats are believed—and kept credible by being delivered on when violations occur—the violation rate within the target group will tend to go down. That lower violation rate translates into less punishment actually administered, thus freeing up punishment capacity that can be used to credibly extend the size of the threatened group. Thus a system that cannot be "tipped" to its low-violation equilibrium all at once may prove manageable piecemeal.[12]

III. THE CRIME/PUNISHMENT TRADEOFF

Crime is socially costly, but the damage done directly to victims forms a relatively small part of that cost. The larger part of the cost of crime stems from the efforts potential victims make to avoid victimization, including restricting their activities—and the activities of their children—and making locational decisions: where to live, where to work, where to shop, where to establish (or shutter) a store, office, or factory. It is now commonplace that we need to check suburban sprawl in order to shrink the nation's greenhouse-gas footprint, to say nothing of the hideous stress and wasted time involved in commuting; but the move to the suburbs, and now the exurbs, is hard to understand, and will be hard to reverse, without taking into account the desire to live in safer neighborhoods.

The total cost of crime is hardly a meaningful number unless we imagine a way of abolishing it entirely, but a reasonable estimate of the value of a 10% reduction might be on the order of 1% of Gross Domestic Product, or about $130

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[10] *See generally* BECCARIA, *supra* note 7.

[11] *See* Mark A. R. Kleiman, *Enforcement Swamping: A Positive-Feedback Mechanism in Rates of Illicit Activity*, MATHEMATICAL & COMPUTER MODELLING, Jan. 1993, at 65, 65.

[12] *Id.* at 69–70.

billion a year.[13] Thus, a policy that risks increasing crime, or even halting the crime decline that started around 1994, is not to be undertaken lightly. It is worth spending some money (currently just over $200 billion a year if we add up law enforcement and criminal justice expenditures at all levels of government) and inflicting some punishment to keep the crime rate headed in the right direction.[14]

Yet punishment, no matter how necessary an evil, remains an evil still: usually expensive to the state, and always painful to the person punished, and to those who care about that person.

Insofar as punishment controls crime (which is not to say that only punishment controls crime), we face a tradeoff. We can evaluate any set of policies-in-action in terms of the costs of enforcement and punishment—public expenditures and the costs imposed on those arrested and incarcerated—and the costs of crime (including the costs of crime avoidance) borne by victims and others.

IV. THE LIMITS OF PUNISHMENT

Punishment controls crime by deterrence and by incapacitation. Both are subject to diminishing returns.

Assuming that the criminal justice system at any given time is somewhat selective about whom it imprisons—that those offenders put behind bars have higher personal crime rates (what criminologists call lambdas) than those offenders not put behind bars—then it follows that increasing the number of people sent to prison must necessarily mean reaching down further into the lambda distribution. A year's incarceration of each successive tranche of prisoners will prevent fewer crimes by incapacitation than a year's incarceration of the previous tranche.

Incarceration can also be increased by increasing effective sentence length, either with longer nominal terms or less aggressive "discounts" in the form of discretionary release on parole or "good-time" credits. (An economist would call this increasing incarceration at the "intensive margin," as opposed to increasing it at the "extensive margin" by locking up more people.) But this runs into a different form of the diminishing-returns problem. Since lambda tends to decrease with age, and since each additional year on any given sentence is served by a prisoner one year older than the previous year of that sentence, each year served prevents fewer crimes than the previous year served.

Deterrence is similarly burdened. At the extensive margin, increasing the number of people with prison records tends to decrease the stigma associated with having been incarcerated: perhaps, unfortunately, more so among residents in high-incarceration neighborhoods than among employers. Insofar as stigma does some

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[13] *See* MARK A. R. KLEIMAN, WHEN BRUTE FORCE FAILS: HOW TO HAVE LESS CRIME AND LESS PUNISHMENT 26–28 (2009).

[14] *Table 1.2.2006: Justice System Direct and Intergovernmental Expenditures, by Level of Government, United States, Fiscal Years 1982–2006*, SOURCEBOOK CRIM. JUST. STAT. ONLINE (2006), http://www.albany.edu/sourcebook/pdf/t112006.pdf.

of the work of deterrence, then the deterrent effect of each individual sentence shrinks as the lifetime incarceration rate grows.

At the intensive margin, the key fact is that the last five years of a ten-year sentence start five years from now, a period beyond the planning horizon of many offenders. Moreover, if offenders' behavior is well described by Prospect Theory, an offender given a choice between a 50% chance of a one-year sentence and a 25% chance of a two-year sentence would choose the latter: that is, they fear it less. (That could be true even for purely rational actors if stigma and the other "fixed costs" of incarceration—independent of sentence length—weighed heavily in offenders' value system. The reader is encouraged to perform a thought-experiment by introspection.)

V. THE CENTRALITY OF COMMUNITY CORRECTIONS

Making punishment more swift and certain is easier said than done. Most serious crimes never lead to arrest, and offenders cannot be punished for crimes for which they are not arrested. Nor is it at all obvious how police departments could increase the probability of arrest conditional on a crime having been committed. Increasing the number of officers might have that effect, and that may help explain the observation that adding officers tends to reduce crime rates. But with policing already taking about half of the budget dollars allocated to the entire criminal-justice system, it is hard to imagine that cash-strapped localities will decide to add enough new officers to put a serious dent in crime.[15] And, except for the punitive effects of arrest and pre-trial confinement—not, technically, "punishments," since the persons involved have been convicted of no crime—swiftness of punishment is limited by the pace at which the court system works.

However, convicted offenders released on probation and parole (or parole substitutes such as mandatory post-release supervision) and—albeit to a lesser degree—arrestees released on bail or other pre-trial release—are subject to restrictions that do not apply to ordinary citizens, to greater scrutiny, and to punishment requiring less elaborate "due process." For this group, greater swiftness and certainty of punishment—not only for new crimes but for "technical" violations of the conditions of release—is, in principle, feasible.

Despite the quintupling of U.S. incarceration rates after 1975, at any given time most of the people known to be recently-active serious offenders are not behind bars. The probation and parole population (5 million) is more than double the prison and jail population (2.4 million), and the population of those released pending trial, while not tracked in any data set, is also large and only partly

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[15] *Key Facts at a Glance: Direct Expenditures by Criminal Justice Function 1982–2007*, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, *available at* bjs.ojp.usdoj.gov/content/glance/tables/exptyptab.cfm (last updated Sept. 3, 2011).

overlaps the probation and parole system.[16] About four in ten felony arrestees are already under some form of community supervision.[17]

Yet neither the funding nor the administrative capacity of community corrections systems is well-proportioned to their potential importance in reducing crime (and incarceration). Bail and release-on-recognizance systems lack their own administrative bodies and barely make a pretense of trying to control the criminal activity of those subject to them, though their recent arrests suggest that at least some of them are very well worth supervising.[18] That encourages prosecutors and judges to use either bail denial or high bail to achieve pre-trial incapacitation for apparently dangerous offenders, thus swelling the jail population with people still considered innocent by the law.

Probation departments, divided between their supervisory role and their role in preparing pre-sentencing reports, are funded at derisory levels: $1000 per felony probationer per year is typical.[19] Some respond by virtually abandoning any effort to supervise some of their charges who are placed on "bank" or "summary" probation—where the probationer is not even assigned an active case supervisor and the probation department merely managing the paperwork. "Banking" is designed to free resources for more intensive supervision of more dangerous probationers, but the published research on intensive probation supervision shows very discouraging results. Parole agencies, managing smaller populations with, on average, more serious criminal histories, are better funded, at about $3000 per parolee.[20] Moreover, unlike probation agencies, they have the power to return their clients to prison without the intervention of a judge. As a consequence, parole supervision is typically much tighter than probation supervision, but the rate of return to prison on technical violations constitutes a problem in its own right, and some states such as California have attempted to deal with that problem by creating a status of "non-revocable parole," which makes orders from parole agents little more than helpful hints.[21]

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[16] *Table 6.1: Adults on Probation, in Jail or Prison, and on Parole, United States 1980–2009*, SOURCEBOOK CRIM. JUST. STAT. ONLINE (2009), http://www.albany.edu/sourcebook/pdf/t612009.pdf.

[17] THOMAS H. COHEN & TRACEY KYCKELHAHN , BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, FELONY DEFENDANTS IN LARGE URBAN COUNTIES, 2004, at 1 (2008), *available at* bjs.ojp.usdoj.gov/content/pub/pdf/fdluc04.pdf.

[18] THOMAS H. COHEN & BRIAN A. REAVES, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE,, SPECIAL REPORT: PRETRIAL RELEASE OF FELONY DEFENDANTS IN STATE COURTS, 9 tbl.7 (2007), *available at* bjs.ojp.usdoj.gov/content/pub/pdf/prfdsc.pdf.

[19] *Table 6.1: Adults on Probation*, *supra* note 16 (estimating a correctional population of 4.2 million adults on probation and 800,000 on parole); *see also Table 1.9.2006: Direct Expenditures for Correctional Activities of State Governments and Percent Distribution*, SOURCEBOOK CRIM. JUST. STAT. ONLINE (2006), http://www.albany.edu/sourcebook/pdf/t192006.pdf (estimating the direct total expenditures for "other corrections" to be $6.9 billion).

[20] *Table 6.1: Adults on Probation*, *supra* note 16; *Table 1.9.2006: Direct Expenditures*, *supra* note 19.

[21] *Division of Adult Parole Operations: Non-Revocable Parole*, CAL. DEP'T CORR. & REHAB. (2010), http://www.cdcr.ca.gov/parole/non_revocable_parole/.

As in the case of bail, the deficiencies of probation and parole supervision tend to swell the prison headcount. Judges who doubt the value of probation as either a deterrent or a tool of incapacitation may respond by giving prison sentences instead, and legislatures frustrated by high recidivism rates on parole tend to move toward "truth in sentencing." In addition, insofar as poor supervision leads to high recidivism, some of those new crimes will lead to incarceration.

The budgetary stringency in community corrections stands in stark contrast to the prison and jail systems, which hold fewer than a third of the recently-convicted felony offenders but account for more than four-fifths of the corrections budget.[22] Costs vary, and the crowding situation creates complicated questions of average versus marginal cost—simply squeezing one more prisoner into an already-crowded prison isn't nearly as expensive as eventually opening a new institution. But, it appears that $35,000 per year (about $100 per day) represents a reasonable average cost of incarceration.[23] But nationally, the average cost of incarceration is just under $24,000 per prisoner per year.[24]

The disappointing results of intensively supervised probation strongly suggest that merely spending more money on existing community corrections systems would not guarantee a reduction in crime. But the current fiscal pressure on those systems makes any sort of reform harder, and there is evidence that operationally feasible modifications of existing community corrections practice could make a large impact on the personal crime rates of probationers and parolees. HOPE probation in Hawaii costs about $1000 per offender per year more than routine probation, but it reduces felony arrest by almost two-thirds, and days-behind-bars (prison plus jail) by more than half.[25] Given the high cost of incarceration, the program more than pays for itself, considering all public budgets together. But in the absence of up-front funding or of some mechanism to channel some of the prison-cost savings back into the probation department (and the court system, and the police agencies that have to pursue absconders), HOPE and similar programs represent a cost increase for probation and parole departments. If the savings from a reduction in prison population were used to fund successful community corrections programs, the result could easily be less crime, rather than more crime.

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[22] *Table 1.10: Direct Expenditures for Correctional Activities of State Governments, by Type of Activity and State, Fiscal Year 2000*, SOURCEBOOK CRIM. JUST. STAT. (2003), http://www.albany.edu/sourcebook/pdf/t110.pdf (estimating "Institution" expenditures account for 81% of total corrections expenditures).

[23] Transcript of National Institute of Justice 2009 Panel Discussion, *available at* http://nij.ncjrs.gov/multimedia/transcripts/nijconf2009-offender-supervision.htm.

[24] PEW CENTER ON THE STATES, *supra* note 4, at 11.

[25] Angela Hawken & Mark Kleiman, *Managing Drug Involved Probationers With Swift and Certain Sanctions: Evaluating Hawaii's HOPE*, NAT'L CRIM. JUST. REFERENCE SERV. (Dec. 2009), http://www.ncjrs.gov/pdffiles1/nij/grants/230444.pdf.

VI. WHY COMMUNITY CORRECTION FAILS

The logic of community corrections is clear. In principle, it ought to be possible to manage a convicted offender so as to impose some amount of punishment (for general deterrence) and to achieve some degree of incapacitation (to prevent future crimes by the same offender) without paying for that offender's room and board and without imposing all of the suffering that prison creates for the offender and those who care about him. Perhaps one could also encourage or require the offender to accept various services (e.g., anger management training or drug treatment) for purposes of rehabilitation. Again, logic would suggest that such services are generally both cheaper to deliver outside the security walls of a prison and more likely to be efficacious when the client has a chance to practice his new skills and behaviors in the community setting where they are intended to work, rather than in the artificial environment of the prison yard.

From this perspective, the massive failure of community corrections is something of a surprise. Probation in particular is held in contempt by many if not most offenders: a probation sentence is known as "getting a walk," by contrast with the real punishment of jail or prison. Thus, its deterrent effect is dubious at best; in the massive literature on deterrence, no scholar appears to have even tried to use the length of a probation term (as opposed to the length of a prison term) as the independent variable. As to incapacitation, experiments with intensively supervised probation failed to show any reduction in new crime as a result of a massive increase in probation supervision resources.[26] It is possible that probation is effective, even though much more probation is no more effective, but the immediate inference from the finding that 3x is not detectably greater than x is that x must be close to zero. Martin Horn, as Corrections Commissioner in New York City, proposed, in despair, that probation supervision be abolished entirely and replaced with a voucher system for services. California, looking for ways to reduce its prison population, recently created a status called "non-revocable parole," abolishing the threat of sanctions for parole violations for an entire class of relatively low-level offenders.[27] Evidently the legislature and Governor believed that the contribution of parole supervision to reducing future crime and incarceration in that group was more than counterbalanced by its contribution to increasing the prison population through sending parolees back behind bars for technical violations.

From another perspective, though, the failure of community corrections is entirely understandable. The primary means of supervision is the face-to-face meeting. Even parole agents, who typically have smaller caseloads than probation officers (roughly 75 compared to 150) are so outnumbered by their clients that they

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[26] Joan Petersilia & Susan Turner, *Intensive Probation and Parole*, 17 CRIME & JUST. 281, 310–311 (1993).

[27] *Division of Adult Parole Operations*, *supra* note 21.

have very little time for each of them.[28] Assuming a work-month of 160 hours, a parole agent has barely more than two hours per month to spend with each client. That means that meetings with the agent consume less than half a percent of the client's waking hours.

So, to be effective, supervision has to leverage that small amount of face-to-face time into control over the rest of the client's month. That, in turn, depends on the supervisor's capacity to observe behavior that does not take place in her office and to respond to behavior that violates the rules. Both are in short supply.

Probationers and parolees are subject to a plethora of rules, not all of them closely linked to preventing future criminal behavior. The payment of fines and fees, for example, is easy to observe but not obviously relevant to reducing recidivism. Indeed, the need to come up with money can be a stimulus to crime, even if that money is used to pay a court clerk rather than a drug dealer.

Other rules, such as desisting from the use of expensive illegal drugs, are more clearly relevant, but still hard to enforce. A drug test linked to a scheduled monthly supervision meeting merely requires the offender to desist for the three days preceding the meeting, because the metabolites detected by the tests in conventional use remain at detectable levels for forty-eight to seventy-two hours.[29] (Cannabis is an exception.)

Rules requiring the receipt of service might be monitored relatively easily if probation and parole agencies had data systems linked to the providers' data systems, but this is rarely the case. Especially aggressive probation officers and (more typically) parole agents can enforce other rules, such as curfews, by making unannounced home visits, but the expense of time limits this to special cases.

Even when a violation is detected, the supervisor frequently finds herself without an effective response. Internal discipline—in effect, stricter conditions of supervision, including "day reporting" under which a client is required to spend nine-to-five every day in some fixed location under someone's watchful eyes—requires substantial effort on the part of the supervisor. And the ultimate sanction—incarceration—requires very considerable effort indeed: the preparation of an elaborate statement of the facts (representing, typically, several hours' effort) and then the supervisor's appearance in court of before a hearing officer for what may be a lengthy hearing. Supervisors, their managers, and judges are all aware both of the expense of incarceration and its likely negative impact on what are hoped to be the client's efforts to forge a new, law-abiding life for himself. As a result, the most frequent result, even of a detected violation, is a rebuke from the supervisor, and a warning not to do it again.

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[28] REENTRY POLICY COUNCIL, COUNCIL OF STATE GOV'TS, REPORT OF THE RE-ENTRY POLICY COUNCIL: CHARTING THE SAFE AND SUCCESSFUL RETURN OF PRISONERS TO THE COMMUNITY 359 (2005), *available at* http://reentrypolicy.org/publications/1694;file.

[29] *Drug and Alcohol Testing*, ACUMEN BIOSERVICES LTD., http://www.acumenbioservices.co.uk/index.php?option=com_content&view=article&id=48&Itemid=67 (last updated 2010).

This remains true even in the face of written policies requiring that every violation be reported. Under current conditions, those policies command what is impossible. The problem is that probationers and parolees have been selected precisely for breaking rules; it would therefore be unreasonable to expect them to be naturally compliant. And enforcing any rule becomes more expensive the less compliant the underlying population is.

Consider, for example, a probation officer with a caseload of 150 and a 160-hour work-month. Assume that each probationer is told to appear for a one-hour meeting once a month. Notice that the officer has now virtually exhausted her time budget (ignoring any required organizational-maintenance activity) by simply meeting with her charges. (In practice, some probationers will fail to appear for their meetings, thus creating a small amount of slack in the supervisor's day.)

Assume further that half of those probationers are subject to drug testing, and that the test is administered at the monthly meeting. If the compliance rates were high, then the rare violation could be dealt with. But if, as is usually the case, non-compliance is widespread—combined no-show and positive-test rates of about one in three[30]—the supervisor is in an impossible position. Assume, conservatively, that "writing up" a violation takes two hours. (One might imagine that probation and parole agencies had sophisticated information-technology systems to automate the process of report production, but one would be wrong.) A third of a half of 150 is 25 violations, totaling 50 hours a month of extra work for the supervisor, whose time-budget had virtually no slack in it to begin with.

There are not enough hours in the month to apply a time-consuming sanctions process to more than a small fraction of the violators; hence the heavy reliance on exhortation instead. But jawboning depends for its efficacy on the existence of a genuine threat, and the number even of persistent violators is generally too high to permit actually sanctioning all of them. Thus, sophisticated community corrections clients learn that most rules can be safely ignored in the short run. And the problem is self-reinforcing: the less credible the threat, the higher the violation rate, and the higher the violation rate the less feasible it is to act on any substantial fraction of the threats. The supervision system is therefore caught in a social trap in which high violation rates and low sanctions rates are mutually sustaining.

Now, given the severity of the possible sanction—being sent, or sent back, to prison for a period of months (even, occasionally, years)—a purely rational and fully self-controlled probationer might well choose compliance as the more prudent course. After all, some probationers, and many parolees, eventually do face a term behind bars as a sanction for the violation of community-release conditions. In some jurisdictions, that sanction includes an extension of the underlying term of supervision; some offenders wind up cycling in and out of custody for a period longer than the maximum terms for the underlying offense,

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[30] MARK A. R. KLEIMAN ET AL., CAL. POLICY RESEARCH CTR., OPPORTUNITIES AND BARRIERS IN PROBATION REFORM: A CASE STUDY OF DRUG TESTING AND SANCTIONS 27 (2003), *available at* http://www.escholarship.org/uc/item/0238v37t?query=opportunities%20and%20barriers%20probation%20reform#page-4.

"doing life in prison on the installment plan." But purely rational and fully self-controlled individuals are not common in any population, and probably less common than average in the correctional population. By reproducing the system of random and deferred severity that faces people who commit crimes and risk arrest, the community corrections system manages to combine a great deal of actual sanctioning with only modest efficacy in controlling behavior.

VII. THE LOGIC OF EFFECTIVE COMMUNITY CORRECTIONS

To succeed in changing behavior, the community corrections system needs to exploit its superior capacity (compared to policing and prosecution) to detect violations reliably and sanction them swiftly. That, in turn, requires escaping the social trap in which a high violation rate becomes self-sustaining because there are too many violations to punish them all consistently. The current system of random Draconianism signally fails to do so.

Given the resources and procedural constraints under which community corrections agencies operate, it is not possible to provide swift and certain sanctions for all violations by all probationers and parolees, or, at least, not immediately. But if it were possible to provide swift and certain sanctions for some violations by some clients, and if the result of doing so were to reduce the frequency of those violations, then a virtuous cycle might begin. Lower violation rates would require fewer actual sanctions, and fewer actual sanctions would put less demand on the limited capacity of the system to mete them out. Thus, over time, a given sanctions capacity could succeed in controlling an increasing number of offenders. This principle of "dynamic concentration" provides a potential way out of the high-violation trap, with the goal of eventually "tipping" the situation from an undesirable high-violation equilibrium to the desirable low-violation equilibrium.[31]

The cost of tipping, in the form of punishments delivered, depends on the response of offenders: the faster they respond to increased threats, the smaller the number of people who need actual punishment. Directly communicating threats, rather than allowing offenders to learn about the possibility of punishment only by encountering it personally or hearing about it from others who have encountered it, reduces the quantity of actual punishment delivered on the way to the desired low-violation equilibrium.

Take the example of the probation officer described above. Assume that she has 10 hours per month to devote to writing violation reports, and that such a report consumes two work-hours. Thus she can process up to five violations per month. If she has 150 probationers and their monthly rate of detected violations is 30%, she will have about 45 matters to deal with. Therefore, a violator, even if

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[31] Mark Kleiman & Beau Kilmer, *The Dynamics of Deterrence,* PROCEEDINGS OF THE NAT'L ACAD. OF SCI., Aug. 18, 2009, at 14230, 14231, *available at* http://www.pnas.org/content/early/2009/08/17/0905513106.full.pdf+html.

detected, will face only a one-in-nine chance of an actual sanction. The natural way to deal with this is to give priority to those with the largest number of cumulative violations: offenders are warned, again and again, that continued scofflaw behavior will lead to a sanction, until one day (not entirely predictably either to the client or the supervisor) the last straw breaks the camel's back.

But the result of this natural procedure is that clients learn that they can get away with breaking the rules. It is never quite certain which "last chance" was really the last chance. That may tempt them to continue to violate; some will only discover that this process has a limit when they face an actual revocation hearing. This would be a recipe for failure in any case; the situation is made even worse by the possibility that the judge, having heard the case, will decide to continue the offender on probation. Since the consequences of a revocation are fairly drastic for the offender and somewhat expensive for the state (and a further strain on already scarce prison and jail capacity), that is not on its face an unreasonable action by the judge, but it has the consequence of further reducing the capacity of the probation system to control offenders' behavior.

A probation officer acting under the principle of dynamic concentration would select a "target" group of clients in advance, perhaps on the basis of their cumulative violation count or their estimated risk of reoffending. But instead of deciding in each instance whether to go through with a violation report, she would commit herself in advance to sanctioning any violation by a member of the target group, and would explicitly warn each member of the group of his status and of the consequences of further violations. To start out with, the target group might be restricted to ten clients. If so, then the threat could be carried through in every case even if the actual violation rate for the month were 50% rather than the expected 30%.

This would have two effects. First, it would tend to temporarily remove from the caseload some of the most frequent violators by sending them off to prison or jail for a period of several months. That alone would reduce the overall violation rate within the caseload as a whole.

But, if the threat were believed, then the actual violation rate within the target group would be below 30%. If that were to happen, the probation officer would find herself with unused report-writing time, which could be used to extend the target group for the subsequent month. By carrying out the threat of a violation report against target-group members who did violate, the probation officer could enhance the credibility of that threat as applied to both existing and new members of the target group. Thus the number of people who could be effectively deterred with a given sanctions capacity would tend to grow, though not without limit. (If the combination of selecting-out the incorrigible scofflaws and deterring the rest reduced the violation rate within the target group to 10%, for example, then the group could grow to 50 without, on average, breaking the constraint on the officer's report-writing time.) That, in turn, would create what might be called a second-order threat, one that applies to the rest of the caseload: "Keep violating, and you will find yourself in the target group."

Direct communication, certainty, and celerity all contribute to perceived fairness. Offenders, like others, are more willing to change their behavior in the face of threats perceived as fair and comprehensible parts of a fair and comprehensible system.

Thus we have the 5 C formula for effective deterrence mentioned above: Concentration of the agent's attention on a subset of the caseload allows the agent to Communicate a Credible threat of a high-Certainty, high-Celerity sanction to every member of that group.

VIII. HOPE: MECHANICS AND OUTCOMES

As attractive as this speculation seemed[32] and despite what seemed to be successful efforts in this direction,[33] the principles of dynamic concentration had not been applied at scale to a big-city probation system until the introduction of Project HOPE by Judge Steven Alm in Honolulu. Alm, in consultation with colleagues on the bench and with other elements of the criminal justice system (including the defense bar), made three crucial innovations that greatly extended the feasibility of the idea. First, he embodied the threat in a new judicial process he dubbed a "warning hearing." Second, he made use of sanctions much less drastic than revocation, through what Hawaii law calls "probation modification." At the start of HOPE's implementation, a typical sanction was two weeks in jail, but over time it shrank to two days, without apparent loss of deterrent efficacy.[34] Third, he simplified the required reports from probation officers and exempted them from having to appear in court, thus enormously reducing the cost in their time of submitting a violation to the court for sanctions. A modification hearing is therefore a much more summary affair than a revocation hearing, with corresponding savings in courtroom time; on average, such a hearing takes about seven minutes from start to finish.[35]

In addition, Alm recognized that offenders subject to HOPE might abscond rather than appearing voluntarily to face a certain sanction. He therefore made sure that, when he issued a bench warrant for a HOPE participant, that warrant

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[32] *See generally* Mark Kleiman, *Coerced Abstinence: A Neopaternalist Drug Policy Initiative*, *in* THE NEW PATERNALISM: SUPERVISORY APPROACHES TO POVERTY 182 (Lawrence M. Mead, ed., 1997); *see also,* Mark Kleiman, *Controlling Drug Use and Crime With Testing, Sanctions, and Treatment*, *in* DRUG ADDICTION AND DRUG POLICY: THE STRUGGLE TO CONTROL DEPENDENCE 168 (Philip B. Heymann & William N. Brownsberger eds., 2001).

[33] *See, e.g.*, Project Safe Neighborhoods, *Project Sentry*, U.S. ATT'Y'S OFFICE DIST. OF CONN., http://www.justice.gov/usao/ct/projectsentry.html; *see also* ADELE HARRELL ET AL., THE URBAN INST., FINAL REPORT: FINDINGS FROM THE EVALUATION OF THE D.C. SUPERIOR COURT DRUG INTERVENTION PROGRAM (1998), *available at* http://www.urban.org/UploadedPDF/409041_findings.pdf.

[34] Angela Hawken, *H.O.P.E for Reform*, AM. PROSPECT (Apr. 10, 2007), http://prospect.org/article/hope-reform.

[35] Angela Hawken, *The Message from Hawaii: HOPE for Probation*, 34 PERSP., J. AM. PROBATION & PAROLE ASS'NS, at 41 (2010).

would be promptly served: not, alas, the usual fate of probation bench warrants. To do so, Alm enlisted the support not only of the Honolulu Police Department, but also of the United States Marshal Service's fugitive team. A significant portion of the warning hearing was devoted to a discussion of the procedures in place to chase down absconders. Alm even brought to the courtroom a Marshal Service fugitive poster, and described in detail the likely results of appearing on such a poster.[36]

Most HOPE probationers had drug problems—primarily with methamphetamine—and, for them, drug-testing was the primary means of supervision, though HOPE sanctions might be applied to any detected violation of probation terms. Others, whose offenses involved sex or domestic violence, were monitored for compliance with sets of rules designed to reduce the frequency of those offenses.

Drug testing has some very attractive characteristics as a control mechanism: it aims at a behavior pattern common among probationers, is linked to recidivism, and is easy to monitor. Crucially, Hawaii uses "instant-read" drug tests; the obsolescent but still extant practice of sending out tests to a laboratory and waiting several days for results is inconsistent with goal of swift sanctioning. Because of Hawaii's use of "instant-read" tests, the judge was able to accurately warn probationers that, if they tested positive, they would be arrested on the spot and taken immediately to a holding cell to await a hearing.

Care about follow-through, and attention to the bureaucratic detail of making follow-through happen, characterized Alm's entire approach to developing HOPE. He identified all of the people whose cooperation was needed: his own staff, line probation officers, probation supervisors, prosecutors, public defenders, testing technicians, police and the marshals to chase absconders, the management of the jail, and the operators of non-governmental drug treatment programs. Judge Alm, as a former United States Attorney, had the capacity to persuade others to cooperate with him. Where such cooperation is absent, HOPE-like programs may well fail, even assuming that the underlying logic is sound and that offenders will in fact respond to convincing threats by reducing the frequency of violation.

The results in Hawaii were dramatic. After the program had successfully gone through a pilot phase, it was tested in a randomized controlled trial.[37] HOPE probationers, though they were much more tightly monitored, reduced their violation rates so much that they wound up serving no more jail days than the control group.[38] After several months on the program, the combined positive-plus-no-show rate fell into the single digits.[39] Arrests for new felonies were almost two-thirds less frequent in the experimental group as in the control group, and days

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[36] Interview with Steven Alm, Justice of the First Circuit (Dec. 2009).

[37] Hawken & Kleiman, *supra* note 24, at 16.

[38] *Id.* at 25–26.

[39] *Id.* at 18.

sentenced to prison also fell by more than half.[40] As a result, the program more than repaid its relatively modest costs—about $1400 per year, over and above the $1000 per year cost of probation as usual—in reduced prison expenditures.[41] (Most of that additional cost is for treatment services for the minority of HOPE participants who prove unable or unwilling to quit without treatment.)

The low violation rate, added to the brevity of the hearings, also meant relatively low strain on the court: the average HOPE probationer consumes about twenty courtroom minutes a year.[42] Thus Judge Alm calculates that he can—by sacrificing most of his trial workload—manage 2500 HOPE probationers out of a single courtroom, with only his normal courtroom staff.[43]

Despite its rather impressive success, the HOPE innovation has been slow to spread. Comparable programs are now underway in Delaware, Alaska, and California, but none has yet published its results; the Bureau of Justice Assistance plans to fund four replication programs to be evaluated by contractors for the National Institute of Justice.

IX. EXTENSIONS OF HOPE: ADDITIONAL BEHAVIORS AND POPULATIONS

The HOPE concept—the application of dynamic concentration to community corrections—is capable of extension in two dimensions: to additional populations (parole, pre-trial release, and juvenile offenders) and to additional behaviors.

Alcohol use, by offenders whose crimes are alcohol-linked (especially drunk driving and drunken assault, including much domestic violence), resembles illicit drug use in that reducing it will tend to reduce offending. The Sobriety 24/7 program, which originated in South Dakota and is now reaching neighboring states, requires repeat-offender drunk driving convicts to abstain from alcohol use, and to verify that abstinence with either a twice-daily alcohol test or a remote sensor that detects alcohol in perspiration.[44] While it has not been subjected to a full, randomized trial, the results appear to be dramatic: reductions of more than 50% in drunk driving recidivism, lasting well beyond the program's usual ninety-day duration.[45] South Dakota is now expanding the program to those convicted of other alcohol-related offenses. The cost of the program is approximately two to six

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[40] *Id.* at 19.

[41] Hawken, *supra* note 34.

[42] Hawken & Kleiman, *supra* note 24 at 8.

[43] Steven S. Alm, *Hope for the Criminal Justice System*, 2010 CHAMPION MAG. 28, (2010), *available at* http://www.nacdl.org/champion.aspx?id=16287.

[44] *South Dakota 24/7 Sobriety Project*, S.D. OFFICE OF THE ATT'Y GEN., http://apps.sd.gov/atg/dui247/index.htm (last visited Sept. 12, 2011); MOUNTAIN PLAINS EVALUATION, LLC, SOUTH DAKOTA 24/7 SOBRIETY PROGRAM: EVALUATION FINDINGS REPORT (2010), http://apps.sd.gov/atg/dui247/AnalysisSD24.pdf.

[45] MOUNTAIN PLAINS EVALUATION, *supra* note 44.

dollars per day (paid, in South Dakota, by the offenders, who would otherwise face prison time).[46]

A more ambitious program, not yet tried in practice, would be to use GPS position monitoring both to make it harder for offenders to re-offend undetected and to enforce position restrictions: curfews, stay-away orders, and obligations to be at particular places (workplaces, sites for mandated services) at particular times. While "active" GPS monitoring—a staff person or contractor ensuring that the offender is within bounds at all times—is relatively expensive, what is called "passive" monitoring—which generates only post-hoc reports of out-of-position incidents transmitted to a probation or parole supervisor via automated text message—could be provided for three to four dollars per day.[47] Adding GPS monitoring to HOPE-style drug testing and treatment would create a program costing about $2400 per participant per year over and above the underlying cost of probation or parole supervision; the result would be a multiple of the cost of routine probation or parole, but only a fraction of the cost of incarceration.[48] It would be expected that some offenders would abscond by cutting off the GPS unit, but doing so sends an alarm; recapture of such fugitives would be greatly aided by real-time knowledge of their last pre-flight locations. Compared to existing predictive instruments, the sample of actual behavior provided by position monitoring plus drug testing would almost certainly be a superior means of deciding which of the current prison population was truly too dangerous to have at-large. Again, since such a system has not been tried in practice, estimates of its crime-reduction potential are necessarily speculative. But if drug testing alone—backed by HOPE-style sanctioning—can reduce re-arrest by 50%, it is hardly far-fetched to imagine that the addition of GPS to the mix might reduce re-arrest by as much as 75%. If so, expenditures on such a system might be far more cost-effective investments in crime reduction than incarceration.

X. LESS INCARCERATION, LESS CRIME: A SAMPLE CALCULATION

On this basis, we can now attempt to answer Justice Alito's question numerically. To comply with court orders, California must reduce its prisoner headcount by approximately 34,000 by some combination of releasing current prisoners, reducing the number of sentences to prison or the average length of a prison terms, and reducing the number of offenders incarcerated or re-incarcerated for probation and parole violations. California currently has 90,000 actively supervised parolees.

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[46] S.D. ADMIN. R. 2:06:03 (2007).

[47] Information attained from communication between Bruce Thacher, President, BI Inc., and authors (Apr. 2010); *see also Case Studies,* BI.COM, http://bi.com/CaseStudies (last visited Oct. 15, 2011).

[48] This total cost is based on the authors' calculation from the component costs mentioned *id.*

The average cost-per-prisoner in California is currently about $48,000 per prisoner, but the marginal cost—the fiscal gain from releasing a single prisoner and saving the overcrowding cost—is closer to $25,000.[49] In order to reduce overcrowding, a prison release program would have to release prisoners without shuttering institutions, so the marginal cost is the relevant figure.

Adding a parolee to the rolls costs about $3200 per year (as with the prisoner-cost calculation, this is the smaller incremental cost rather than the average cost).[50] Upgrading parole with HOPE-style sanctioning, drug testing with treatment as needed, and GPS position monitoring would add an estimated $2400 per year to that figure.

Assume, then, a world in which California had 34,000 fewer prisoners and 34,000 more parolees, and where both the additional parolees and all existing supervised parolees were under HOPE with drug testing and GPS monitoring. Such a world would have both budgetary and public-safety implications.

On the fiscal side, keeping 34,000 fewer prisoners would save $850 million per year. Supervising an additional 34,000 parolees under parole-as-usual would cost $100 million per year. Upgrading parole for those 34,000, plus the 90,000 currently supervised parolees, would cost $300 million per year. Thus parole costs would absorb only $400 million of the $850 million in prison savings, leaving a net fiscal gain of $450 million per year.

On the public-safety side, of course Justice Alito is right: some of the 34,000 people not held in prison would commit crimes, at a rate depending on the distribution of offenders and on the level of supervision. Let us call the average felony crime rate per released prisoner (under parole-as-usual supervision) X.[51] Since existing parolees are people recently released from prison, it seems reasonable to assume that the crime rate of those to be released, or not confined or re-confined, would be comparable to the crime rate of current supervised parolees.

In Hawaii, HOPE reduced the felony arrest rate among probationers by 65% compared to probation-as-usual. Californian parolees may represent a tougher supervision challenge that Hawaiian probationers, but Hawaii HOPE uses drug testing only, without the GPS enhancement. Assume for the purposes of calculation—and perhaps conservatively—that the full upgrade in California would reduce the crime rates of current and new parolees by 50% rather than 65% observed in Hawaii with HOPE drug-testing only.

If so, crimes committed by the 34,000 people not held as a result of headcount reduction under enhanced supervision would be 17,000-X (half of what the rate

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[49] Mac Taylor, *A Status Report: Reducing Prison Overcrowding in California,* LEGISLATIVE ANALYST'S OFF. 4 (2011), *available at* http://lao.ca.gov/reports/2011/crim/overcrowding_080511.pdf; *see also* CAL. DEP'T OF CORR. & REHAB. MASTER PLAN ANNUAL REPT. FOR 2009 (2010), *available at* http://www.cdcr.ca.gov/FPCM/docs/MasterPlan2009_pages_1-249.pdf.

[50] CAL DEP'T OF FINANCE, GOVERNOR'S REVISED BUDGET CR-1 (2011), *available at* http://www.ebudget.ca.gov/pdf/GovernorsBudget/5210.pdf.

[51] Based on the share of new felony arrests accounted for by parolees, the value of X is probably in the mid-single digits.

would be under routine supervision). But reducing the criminal activity of the 90,000 current supervised parolees would save, on the same assumption, half of their crime: preventing some 45,000-X felony offenses. That would produce a net crime reduction of 28,000-X. In other words, holding 34,000 fewer prisoners, and using less than half the money saved as a result on closer parole supervision, would have the same crime impact as *adding* 28,000 new prisoners.

The net savings of $450 million per year could either be applied to the state's deficit or used to reduce crime even further by adding alcohol monitoring on the 24/7 Sobriety Model[52] to parole supervision or by upgrading supervision on some of the state's 200,000 felony probationers and uncounted pre-trial releases.

A more elaborate calculation would include additional effects: some of those released, or not imprisoned at first would offend and be imprisoned later, while the crime reduction among current parolees would lead to reduced incarceration later. (As noted, HOPE probationers in Hawaii spend less than half as much time behind bars as similar offenders on probation-as-usual.) But the bottom line is clear: fewer prisoners, less expenditure, and less crime.

Assuming that the state is capable of choosing wisely among existing and potential prisoners—releasing, or not imprisoning, the least dangerous first—the process of reducing crime by reducing prisoner headcounts is subject to the law of diminishing returns: additional reductions in the prison population can be achieved only by releasing more and more dangerous offenders. The reverse is true for supervision: if we spend money first on enhanced supervision of the most dangerous, each new expansion of the supervision budget will produce a smaller crime control benefit than the last. But it seems safe to say that a headcount reduction of 34,000 could be managed so as to create a gain, not a loss, in public safety.

Now, a hypothetical calculation is no substitute for an actual program. Merely spending more money on probation and parole supervision is no guarantee of reduced recidivism. But the claim that there is a stark tradeoff between prison headcount and the crime rate cannot stand. California—like the rest of the country—could choose to have less crime and less incarceration. Or it could choose otherwise. But the choice is there to be made.

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[52] For more information about this model, see *South Dakota 24/7 Sobriety Project*, *supra* note 44.