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**Electronic Prison:  
A Just Path to Decarceration**

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## **ELECTRONIC PRISON: A JUST PATH TO DECARCERATION**

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### *Abstract*

*The decarceration movement enjoys enthusiastic support from many academics and activists who point out imprisonment's failure to rehabilitate and its potential criminogenic effects. At the same time, many fiscal conservatives and taxpayer groups are critical of imprisonment's high costs and supportive of finding cheaper alternatives. Yet, despite this widespread support, the decarceration movement has made little real progress at getting offenders out of prison, in large part because community views, and thus political officials, are strongly committed to the importance of doing justice – giving offenders the punishment they deserve – and decarceration is commonly seen as inconsistent with that nonnegotiable principle. Indeed, almost no one in the decarceration movement has attempted to formulate a large-scale decarceration plan that still provides for what the community would see as just punishment.*

*In this Article, we offer just such a plan by demonstrating that it is entirely possible to avoid the incarceration of most offenders through utilizing non-incarcerative sanctions that can carry a total punitive effect comparable to physical prison. New technologies allow for imposing "electronic prison" sentences where authorities can monitor, control, and punish offenders in a cheaper and less damaging way than physical prison while still doing justice. Further, the monitoring conditions provided in electronic prison allow for the imposition of a wide array of other non-incarcerative sanctions that were previously difficult or impossible to enforce. Even while it justly punishes, electronic prison can dramatically increase an offender's opportunities for training, treatment, education, and rehabilitation while avoiding the problems of unsupported families, socialization to criminality, and problematic reentry after physical incarceration. And, from a public safety standpoint, electronic prison can reduce recidivism by eliminating the criminogenic effect of incarceration and also provides longer-term monitoring of offenders than an equivalently punitive shorter term of physical imprisonment. Of course, one can imagine a variety of objections to an electronic prison system, ranging from claims it violates an offender's rights to fears it may widen the net of carceral control. The Article provides a response to each.*

*Electronic prison is one of those rare policy proposals that should garner support from across the political spectrum due to effectively addressing the complaints against America's incarceration system lodged by voices on the left, right, and center. Whether one's primary concern is decarcerating prisoners and providing offenders with needed treatment, training, counseling, and education, or one's concern is reducing crime, imposing deserved punishment, or simply reducing government expenditures, implementing an electronic prison system would provide a dramatic improvement over America's current incarceration policies.*

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I. The Problems with Incarceration	4
A. The Criminogenic Objection	4
B. The Financial Objection	5
C. The Humane Objection	6
II. The Problems with Decarceration	7
III. Electronic Prison and Other Non-Incarcerative Sanctions	9
A. Electronic Monitoring: Controlling and Punishing Through Liberty and Privacy Restrictions	9
1. Location Monitoring	10
2. Audio/Visual Monitoring	10
3. Physiological Monitoring	11
4. Monitoring Software Installed on Electronic Devices	11
B. Electronic Monitoring: Enforcing Other Non-Incarcerative Sanctions	12
IV. Making Electronic Prison Work	13
A. Ensuring Punitive Equivalence Between Electronic and Physical Prison Sentences	13
B. Eligibility for Electronic Prison	15
C. Costs and Savings of a Shift to Electronic Prison	15
V. Potential Objections to Electronic Prison	17
A. Human/Civil Rights Objections	17
1. Responding to the Privacy Objection	17
2. Responding to the Anti-Punishment Objection	18
B. Public Safety Objections	19
C. Justice Objections	20
D. The “Net Widening” Objection	20
VI. Conclusion	21

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One of the most controversial aspects of America’s criminal justice system is its significant reliance upon incarceration. Prison has been assailed by a wide spectrum of opponents ranging from prison abolitionists to fiscal conservatives. America spends over \$80 billion a year incarcerating around 1.9 million offenders in prison and jails. Practically no one considers the status quo ideal. As one writer puts it, “the question is no longer whether we should decarcerate American prisons but how.”<sup>3</sup> We agree. But that *how* remains deeply

problematic, with most decarceration efforts achieving only small reductions in prison populations. Traditional decarceration advocates often operate from a prisoner-centric mindset that ignores society's demand for imposing just punishment, instead focusing on reducing or replacing punishment in favor of therapeutic intervention. Such reformers propose a slew of therapies, diversion programs, and education initiatives to deal with convicted criminal offenders. Such a "soft on crime" approach to decarceration, no matter how well-intentioned, is doomed to fail. First, implementing widespread decarceration on this model is politically infeasible given that the public does not see most prison sentences as unjust and views therapeutic intervention for offenders as a complement to punishment, not as a substitute for it. Second, even if such a dramatic shift could somehow be forced through without popular support, real world experience suggests such a refusal to punish crime will erode both deterrence and the law's moral credibility with the community, thus sparking even more crime and inevitably undoing the reform.

The conundrum for the decarceration movement is that the criminal law must punish justly in the eyes of society, but prison has traditionally been the only way to deliver severe enough punishment for serious crimes to satisfy society. This problem can only be solved by finding ways to construct equivalently punitive non-incarcerative punishments that society will accept as a just alternative to prison for large numbers of current prisoners. Given the anti-punishment motivation that drives many decarceration supporters, little attention has been paid to constructing significantly punitive non-prison punishments.<sup>4</sup> There has been little attempt to put forth a publicly acceptable mass decarceration scheme.<sup>5</sup> This Article attempts to promote the decarceration cause by proposing an electronic prison scheme that would allow most offenders to be punished with equivalently punitive non-prison sanctions. We argue that these alternatives ought to be more attractive to people across the political spectrum because while they impose deserved punishment, they avoid many of the damaging costs of incarceration. In addition to being financially cheaper, an electronic prison system of non-incarcerative sanctions could improve outcomes for both prisoners and society by reducing recidivism and better facilitating offenders' reintegration with their communities.

Part I of the Article details some of the common objections to America's use of incarceration that in our view, and the view of most researchers, make it necessary to seek alternatives to prison. Part II discusses the failings of many existing decarceration proposals with a focus on how their anti-punishment aims undercut the justice system's obligation to do justice and thereby prevent adoption of such proposals. Part III describes our proposed electronic prison scheme, demonstrating how existing technology can be used to control prisoners and enforce non-prison sanctions by depriving such e-prisoners of many of the same liberties that would be sacrificed by a brick-and-mortar prison sentence. Part IV considers other important practical considerations for an electronic prison scheme, including how to construct sufficiently punitive sentences, eligibility conditions for receiving an electronic prison sentence, and the feasibility of switching prisoners to such a system. Central to our proposal is ensuring punitive equivalency between electronic prison and physical prison sentences, as judged by public intuitions of justice.<sup>6</sup> Part V considers the likely objections to an electronic prison scheme from human rights, public safety, and justice advocates. (This Article uses the term "justice" in the traditional sense of imposing deserved punishment proportional to an offender's blameworthiness, no more, no less.<sup>7</sup>) Rather than providing a persuasive argument against the use of electronic prison, we show such objections either fail altogether or serve to caution

against improper implementation. We are aware that implementing an electronic prison system will be seen as a bold, even risky, move by many, but compared to the significant costs of existing incarceration practices, experimenting with electronic prison is the most reasonable path forward.

## I. The Problems with Incarceration

For good or ill, incarceration is the main method of punishment in America for felony offenders. About two-thirds of sentenced offenders receive an incarcerative sentence in either prison or jail.<sup>8</sup> In some ways, the rise of incarceration as a method of punishment marked progress as incarceration replaced the previous greater reliance on corporal punishment.<sup>9</sup> While corporal punishment reflects a theory of punishment as pain inflicted, incarceration reflects a theory of punishment as rights deprived<sup>10</sup>— what is generally seen as a more justifiable and coherent conception of punishment in modern societies. Additionally, incarceration protects society from the criminal offender for the length of the sentence and offers the possibility of implementing interventions designed to reform the offender.

However, America's reliance on incarceration has provoked backlash, with concerns about "mass incarceration" dominating academic and public discourse. While we have criticized elsewhere many of the claims of the mass incarceration narrative as to the causes of America's large prison population,<sup>11</sup> opponents of incarceration are right to criticize America's incarceration practices. While we (and most of society) believe an appropriately proportionate prison sentence can justly punish crime, incarceration involves numerous costs to society that other punishment methods might reduce or avoid.

The main objections to prison fall into three categories: criminogenic, financial, and humane. Each is considered in turn.

### A. The Criminogenic Objection

The most serious and widely recognized objection to incarceration is that incarceration does a poor job of controlling recidivism and may even make reoffending upon release more likely. It is undeniable that most released prisoners reoffend. A study examining released state prisoners from 2005 to 2014 found that "An estimated 68% of released prisoners were arrested within 3 years, 79% within 6 years, and 83% within 9 years."<sup>12</sup> A 2012-2017 study found that 46% of released state prisoners ended back in prison within 5 years.<sup>13</sup> Such high recidivism rates show prisons do a poor job of rehabilitating offenders, but it is harder to say how much incarceration itself contributes to the recidivism. Criminal offenders in general may simply be hard to rehabilitate no matter the punishment or environment. However, studies have repeatedly suggested that prison has at least some criminogenic effect (i.e., increasing the likelihood a prisoner will reoffend compared to different punishments).<sup>14</sup> While some studies have suggested that spending longer in prison increases recidivism compared to spending less time, the evidence on this is mixed, with the most rigorous analysis finding both negative and positive effects depending on the exact time-served in prison.<sup>15</sup>

There are several theoretical reasons why prison may increase recidivism. One is the "school of crime"<sup>16</sup> theory which holds that prison exposes offenders to other hardened criminals from whom they may learn the tricks of the criminal trade. Supporting this idea of

prison being a criminal bootcamp is the fact that prison removes offenders from normal, law-abiding society, and socializes them among a peer group almost exclusively composed of lawbreakers. As a result, prisoners may internalize crime or violence as a kind of social norm. Additionally, the complete removal of a prisoner from their economic and family life obviously makes reintegration more difficult, and when faced with difficulties finding work, for example, released prisoners may resort to familiar criminal behavior.

Another theoretical justification for incarceration increasing recidivism is the exposure theory, whereby once a prisoner is exposed to and survives in prison, they no longer fear it as much, and so the prospect of future imprisonment is less of a deterrent. (By contrast, a non-incarcerative punishment maintains the offender's fear of prison.) It seems likely multiple mechanisms contribute to incarceration's criminogenic effect. While the criminogenic effect of prison compared to existing alternatives has not been shown to be especially large, research does strongly suggest prison is not better at deterring reoffending than non-prison punishments. As one widely cited study on the subject concludes: "Compared with noncustodial sanctions, incarceration appears to have a null or mildly criminogenic effect on future criminal behavior."<sup>17</sup> It is also important to note several limitations of existing studies on the criminogenic effect of prison vs. non-incarcerative sanctions. First, such studies can only examine current non-incarcerative punishments, which are often limited or rudimentary, and may undercut their own deterrent effect by not being appropriately severe to be considered just. It seems likely that a better designed non-incarcerative punishment scheme would compare even more favorably to prison than current research suggests. Second, such studies can only examine certain categories of offenders for which there is data on recidivism outcomes for prison vs. non-incarcerative sentences. Third, there are many variables which are difficult to control for, such as different prison environments and different alternative sentences. It seems likely that whether prison has a negative or positive criminogenic effect depends on the prison environment, the length of the sentence, the individual offender, and the severity of the non-prison sanction. But research broadly supports the conclusion that at best prison does not deter future criminal behavior more than non-incarcerative sanctions, and at worst, increases the chance of future reoffending.

## B. The Financial Objection

One major drawback of incarceration is its financial cost. The state and federal governments spend over \$80 billion a year operating prisons and jails.<sup>18</sup> By contrast, non-prison forms of supervision and control can be significantly cheaper. In 2016, it cost the federal government approximately \$35,000 to incarcerate an offender for one year, while in that same year, federal community supervision programs cost only about \$4,000 per offender.<sup>19</sup> In 2022, almost 9,000 offenders in the federal system were under location monitoring that cost an average of \$4 per day compared to \$101 per day for pretrial confinement and \$123 per day for sentenced incarceration.<sup>20</sup> The exact savings from non-incarcerative sanctions vs. prison depend on the type of non-incarcerative sanctions and monitoring arrangements, as well as to what extent fees for such non-prison monitoring are passed onto defendants—a common arrangement in many states.<sup>21</sup> Even using conservative numbers, it would appear that non-incarcerative sanctions are likely to be at least three times cheaper than prison<sup>22</sup> and could be ten or even more times cheaper depending on the exact scheme employed.

Another financial cost to society of imprisonment is the fact that prisoners are not as economically productive in prison as they could be outside of it. While prison work systems do exist, they are not nearly as economically valuable as prisoners performing work outside of prison. One study estimates an upper-bound economic cost of lost productivity at \$70 billion annually.<sup>23</sup> This is likely an overestimation considering that many prisoners would not be economically productive even outside of prison. However, a conservative analysis in 1994 accounting for the likelihood of prisoners not being employed (and working in lower paying jobs) still found that lost productivity for incarcerating a prisoner for a year amounted to \$5,285, or approximately \$11,000 in 2024 adjusted for inflation.<sup>24</sup> Since there are almost 1.3 million state and federal prisoners (not counting jail inmates), this would equal a cost of almost \$15 billion of lost productivity per year from imprisonment versus a non-incarcerative punishment scheme that allowed offenders to continue working. When jail inmates are also considered, the costs of lost productivity may be closer to \$20 billion per year.

There are also other financially measurable societal costs created by imprisonment, whether it is costs to families of incarcerated offenders, decreased lifetime earnings of imprisoned offenders, higher healthcare costs due to negative health consequences of imprisonment, and more.<sup>25</sup> These other costs also likely run in the billions per year, meaning the total cost of using prison as a method of punishment costs well over \$100 billion per year in America. In fact, one, admittedly anti-prison, study suggested all the associated yearly costs of incarceration in society could run as high as \$1 trillion.<sup>26</sup>

### C. The Humane Objection

While incarceration is arguably much more humane than capital punishment or the corporal punishments of the past, many incarceration critics still argue the prison environment is deeply inhumane and may even violate human rights in some or all instances. This objection can be either limited or total. A limited critique of prison on humane grounds acknowledges the deprivation of liberty in the prison environment is not itself inhumane if justly deserved, but points to the wide variation in other prison conditions that may add pain that could be considered cruel, inhumane, or unjust.<sup>27</sup> While a humane and just prison might be conceivable or implementable under such a view, in practice many prison sentences end up being judged inhumane. For example, while a model and peaceful prison might be perfectly acceptable, a prison where offenders are at substantial risk of physical abuse, sexual assault, overcrowding, disease, and tyrannical prison administrators would be a violation of human rights. Reducing the use of prison in favor of non-incarcerative sanctions means more humane sentences in practice.

There are also those who completely reject the use of prison, citing humanitarian or social justice objections. This total rejection critique is the position of “prison abolitionists” who believe the use of prison is always, or almost always, immoral. As one abolitionist explains:

Prisons, on this account, are social institutions that reflect and reinforce conditions of racism, socioeconomic inequality, and other injustices. Prison reform does not disturb those broader injustices, the structural critique goes, and so cannot cure the problem with prisons ... and prison reform has another problem. That is, there are limits to how humane any prison can be. By definition, prisons operate by removing people from society by force, and locking them up in a constrained place with many others whom

they do not know and may not like, under the authority of a prison administration. Those definitional features of a prison create conditions of extreme isolation and control, maintained by constant threats of additional and more severe punishments; these conditions are dehumanizing in the sense that they deprive a person of both connection to society and autonomy over themselves.<sup>28</sup>

While many prison abolitionists might totally reject the concept of criminal punishment, they should acknowledge that the use of non-incarcerative sanctions are less likely to sever a prisoner's "connection to society" and deprive prisoners of as much autonomy as a prison sentence. Therefore, whether one supports a limited or total rejection of prison on humane grounds, the use of non-incarcerative sanctions ought to be preferable.

## II. The Problems with Decarceration

Due to these problems with prison, calls for decarceration have grown louder. But decarceration comes with its own problems. The American criminal justice system currently does not have sufficiently developed non-incarcerative sentences that can justly substitute for most prison sentences. One-third of sentenced felons already receive a non-incarcerative sentence (e.g., probation), but the remaining offenders have committed sufficiently serious crimes that sentencing guidelines and judges cannot easily substitute non-prison alternatives. Despite what some activists claim, the legal system does not send most non-serious or first-time offenders to prison. One study showed that "94% of state prisoners had either committed one or more violent crimes (62%) or been convicted more than once in the past for nonviolent crimes (32%)." <sup>29</sup> As a result, trying to decarcerate on any large scale requires finding appropriate non-incarcerative sentences for serious offenders and offenses.

Many in the decarceration movement do not see this as an obstacle but rather as an attractive feature: there is a strong anti-punishment, or at least punishment-reducing, flavor to popular, and especially academic, decarceration advocacy. Giving a serial robber probation might strike some decarceration advocates as perfectly appropriate, while most of society would see it as shockingly inappropriate. Movements like "prison abolition" may overtly target prison, but the end goal for many supporters seems closer to the abolition of criminal punishment.<sup>30</sup> In fact, such anti-punishment activists may support decarceration merely as a means toward achieving this larger goal. As a result, many decarceration advocates push to reduce the use of prison without paying much attention to developing non-prison alternative sentences that the community would actually find just.

To the extent such anti-punishment, or punishment-reducing, reformers consider the negative consequences of decarceration at all, it is primarily in terms of public safety, not doing justice. As long as prisoners are released in a manner that produces a tolerable recidivism rate, such reformers would be satisfied. For example, a Brennan Center report argued that nearly 40% of the U.S. prison population could be safely released in the interests of ending mass incarceration. In describing its plan to reduce incarceration and sentence lengths, the report explains: "This approach is grounded in the premise that the first principle of 21st century sentencing should be to protect public safety."<sup>31</sup> While this may sound attractive at first glance, such an approach entirely ignores the importance of doing justice. Under such a scheme, a murderer could be released without punishment as long as there was good reason to think he



would not reoffend. But such logic would also sentence a shoplifter to prison if a statistical model suggests he will become a serial killer. Sentencing policy should not be the playground of social policy, no matter how noble the goals.

We have written at length elsewhere on the importance of the justice system having its first goal being the doing of justice, operationally defined in terms of delivering punishments based upon a community's shared intuitions of justice.<sup>32</sup> While a just sentence may serve many goals—deterrence, incapacitation, or rehabilitation—it should be imposed because it is a just sentence and not because of these particular utilitarian benefits. Any attempt to pursue those utilitarian goals in a way that conflicts with shared community intuitions of justice will undermine the criminal law's moral credibility with the community and thereby undermine its capacity to harness the powerful forces of social and normative influence necessary for controlling individual behavior.<sup>33</sup> Thus, even those unconcerned with moral notions of just deserts and focused strictly on public safety should care about the criminogenic consequences of ignoring the community's demand for doing justice.

The problem with many current attempts at implementing decarceration is that they propose either slashing time-served in prison purely to reduce prison populations or refusing to send convicted felons to prison in the first place.<sup>34</sup> Simply letting prisoners out early will not gain much support from a justice-oriented public. If anything, the public would likely demand longer prison sentences than currently imposed if they were made aware of actual sentence lengths and how few prisoners serve their publicly-announced prison sentence due to non-public early release policies.<sup>35</sup> More people believe criminals spend too little time in prison than too much.<sup>36</sup> Simply giving felons probation, as many decarceration advocates might propose, will also clearly be seen as a failure of justice by the community since probation is not seen as significantly punitive by the public.<sup>37</sup>

As a result, most politically feasible decarceration proposals have been “modest” in their effect, to put it generously.<sup>38</sup> The lauded bipartisan First Step Act of 2018 released 3,000 federal prisoners in its first year, while reducing the sentences of 2,000 others by 25%.<sup>39</sup> By 2023, five years after the law's passage, the First Step Act had expedited (though often only by a small amount) the release of almost 30,000 federal prisoners<sup>40</sup>—not insignificant, but a small share compared to the 150,000 sentenced federal prisoners in a given year.<sup>41</sup> Successful state decarceration initiatives have reduced prison populations by about 6%.<sup>42</sup> Within the framework of existing sentence lengths and incarceration alternatives, these reductions are all that can be achieved without egregiously violating the public's sense of justice.

While elite reformers may not care about imposing just punishment, the vast majority of society does. Ignoring this demand is not only undemocratic, but it dooms significant decarceration in the long run as the public will not support policies they see as unjustly soft on crime and criminal offenders. The challenge for decarceration proponents to overcome is how to punish prisoners outside of prison in a way the community will agree is just. The anti-punishment or punishment-reducing approach that many prison abolitionists and current decarceration advocates take is to ignore this problem or try to change society's views so the public abandons its notions of punishment. But the demand for just punishment for offenders is a fixed part of human nature—observed even in preverbal infants—and it cannot simply be done away with.<sup>43</sup> However, the good news for decarceration supporters is that prison is not the only way to construct punishments with enough punitive effect to be seen as just by the community. The next section explores the idea of creating “electronic prisons” that can punish

offenders by depriving them of certain liberties and rights (just as in physical prison) while avoiding many of the criminogenic, financial, and humane costs of incarceration described in Part I.

### III. Electronic Prison and Other Non-Incarcerative Sanctions

There is no doubt that some intermediate sanctions short of prison are considered punitive,<sup>44</sup> but many people may legitimately wonder about the feasibility of creating a system that can sufficiently monitor, control, and punish most offenders in a proportionate manner outside of physical prison walls. To answer this question, it is necessary to establish what rights are targeted by a physical prison in order to produce its punitive effect. The main right targeted is locational freedom: the right to live or move where one pleases in society. Prison removes an offender from their home and restricts their ability to leave. Prison also restricts an offender's social freedom by controlling their interactions and communication with others. Additionally, prison restricts an offender's personal freedom in their daily life—prisoners' waking and sleeping hours may be dictated to them, and their ability to engage in certain activities (such as accessing the internet or engaging in recreational activities) is restricted or controlled. Thus, prison can be seen as gaining its punitive effect through removing or restricting locational, social, and personal freedoms.

Section A demonstrates the feasibility of targeting all these same freedoms through technological means and discusses the range of possible technologies and restrictions available. Restricting freedom (prohibitions) through electronic monitoring can be significantly punitive, but it is not the only tool for constructing non-prison sentences. Section B considers how electronic monitoring can help enforce other non-incarcerative sanctions (prescriptions), be it community service or restitution initiatives. The combination of electronic prison restrictions and other non-incarcerative sanctions allows for constructing nuanced and tailored punishments for offenders that most in the community will find just.

#### A. Electronic Monitoring: Controlling and Punishing Through Liberty and Privacy Restrictions

Any widescale decarceration proposal must demonstrate the ability to maintain control of criminal offenders during their punishment. Fortunately, it is possible to use modern technology to monitor and control an offender's behavior through the threat of further worse punishment if violations are detected. The main technologies that are necessary or useful for electronic prison are location monitoring, audio/visual recording, physiological monitoring, and monitoring software. These technologies can enforce restrictions on offenders' liberties, thus generating significant punitive effect. Even the presence of monitoring, regardless of the exact restrictions imposed, can be seen as generating some punitive effect through restricting an offender's privacy.

## 1. Location Monitoring

In prison, inmates are subject to the possibility of constant location monitoring through the presence of guards and cameras. Prisoners can only visit certain locations at certain times (such as being allowed outside during designated hours). But even outside of prison, constant location monitoring is possible through the use of GPS and RFID tracking bracelets. The most well-known type of electronic monitoring are ankle bracelets worn usually by offenders released pretrial, but also worn by many probationers. In 2022, almost half a million offenders pre- or post-conviction were under some kind of electronic monitoring.<sup>45</sup>

Location monitoring technology allows for precise control over where an offender is—even down to a particular room in the offender’s house. It would be possible, for example, to use location monitoring to make sure an offender followed a particular routine—in their bedroom or bathroom between 10pm and 6am, at their workplace between 9am and 5pm, on a designated commuting route between their workplace and residence during certain hours, etc. Location monitoring technology allows for a spectrum of locational control from dictating a literal room arrest (an offender not being allowed to leave their bedroom), to a very loose monitoring that might only prohibit out-of-town or out-of-state travel.

Current location monitoring technology is not particularly expensive—only several hundred dollars per bracelet, depending on the model and capabilities.<sup>46</sup> Location tracking devices could also be fitted with two-way microphones allowing monitoring officers to ask questions about what a prisoner is doing or provide real-time warnings and instructions.

## 2. Audio/Visual Monitoring

One problem with utilizing only location monitoring is that it does not allow authorities to know what an offender is doing in a particular place. But here too, technology exists to allow such wholistic surveillance. A combination of audio and/or visual recorders either placed in the offender’s residence or on their person would allow authorities to constantly record—or only access at particular times—information on what activities an offender is engaged in. One proposal for electronic prison suggests all electronic prisoners wear an upper body harness equipped with a body camera facing both forward and upward (to verify the offender’s face, and thus the identity of the person wearing the harness).<sup>47</sup> The camera would stream visual and audio data to a monitoring office where it could be reviewed by humans or AI programs trained to spot irregularities of behavior or violations of monitoring conditions. The camera could only be removed at certain times (such as showering, sleeping, etc.), and during those times, an offender’s location monitoring bracelet would ensure the offender did not leave the designated area without the camera.

While the deprivation of privacy for the offender is similar to prison (and part of the punishment), one concern might be for the privacy of others who interact with the offender in their place of residence or elsewhere. If the offender is not the owner of the residence, the simple solution is to obtain the consent of the owner and notify all other residents. This is already standard practice for releasing offenders on certain types of electronic monitoring. Ultimately, the burden of notification would be on the offender in normal interactions to let others know that his surroundings were being monitored.

The actual extent and intrusiveness of the monitoring, which is part of the punishment itself, could be altered according to the amount of punishment called for depending upon the seriousness of the offense and the blameworthiness of the offender. Thus, for some minor offenses, location monitoring alone might be sufficient. For some offenders, location monitoring plus the possibility of audio recording might be appropriate (since adding an audio recording feature to a location tracker is likely to be easier and cheaper than a full body camera). Full audio/visual surveillance is not a necessary part of electronic prison but may be appropriate where the offense is serious and calls for a greater punitive effect. For many offenders, it may be appropriate to require full audio/visual surveillance only in certain locations (such as when in public but not in their home or workplace). There is a nuanced spectrum of possible audio/visual surveillance options that can be adjusted as needed as part of electronic prison, and the exact conditions imposed can be a function of both how punitive the sentence is meant to be and how potentially dangerous the offender is considered.

The widespread use of body cameras by police means the technology for audio/visual surveillance is accessible and fairly cheap, with existing models selling for anywhere from \$150 to \$500.<sup>48</sup> A 2020 study of police agencies found that the median cost of storing body camera footage was a quarter of the annual cost of the new camera hardware.<sup>49</sup>

### 3. Physiological Monitoring

In addition to location monitoring and the possibility of audio/visual surveillance, electronic prison could also include monitoring the prisoner's physiology. Such internal body monitoring could include patches testing for the presence of drugs or alcohol, as well as recording the sort of information many fitness trackers currently do (e.g., heart rate). While internal body monitoring would be most useful at ensuring prisoners obey restrictions on consuming drugs or alcohol, it would also be useful at detecting the possibility the prisoner is intentionally violating monitoring conditions. A person's physiology is very different when taking an action intentionally or unintentionally. An intentional violation of conditions is likely to be preceded and accompanied by physiological signs of stress, while an unintentional violation is not. Even the combination of location monitoring and internal body monitoring without audio or visual surveillance would prove a potent combination. For example, it would be hard for a prisoner to commit a crime undetected if it was possible to place them at the scene of a reported crime and observe their physiology exhibited signs of criminal activity (shown by a high state of physiological preparedness or stress). The sort of information collected by an Apple Watch or Fitbit would prove useful and would not be difficult to add to a location monitoring bracelet. The cost of a simple fitness type tracker would only be around \$100, while patches testing for drugs are significantly more expensive due to the need to regularly replace them. For example, one drug patch testing company charges \$160 for the initial installation and \$115 every two weeks for new patches.<sup>50</sup> Though as with many technologies, increased use is likely to decrease per-unit costs.

### 4. Monitoring Software Installed on Electronic Devices

While some electronic prisoners might be forbidden to access computers or cellphones (with this restriction enforced through audio/visual surveillance), it seems likely that many

prisoners will be allowed to use devices that can access the internet as part of their job. In such cases, electronic prison conditions could dictate that such devices have monitoring software installed that can mimic “parental controls” by preventing prisoners from accessing unauthorized sites or applications. For example, a prisoner’s laptop might be prevented from doing anything except accessing a list of preapproved applications and websites necessary for their work life. Such restrictions could impose punitive effect by preventing recreational use of electronic devices for gaming, movies, web-surfing, etc. And as with other conditions, these restrictions can be extensively tailored. For example, prisoners might be allowed to only access non-essential sites or applications at certain times or days. While this could be easily and cheaply implemented for a prisoner’s personal electronic devices, there is the possibility of the prisoner violating these restrictions by using a shared electronic device or borrowing someone else’s. Software is available that is capable of identifying the device user (similar to current proctoring software used by test administrators) and could help alleviate this problem for shared personal devices. However, only visual surveillance would be able to prevent a prisoner from using other people’s electronic devices in an unauthorized manner. For example, visual surveillance might be turned on whenever a prisoner’s location suggested such unauthorized access would be possible or likely.

## B. Electronic Monitoring: Enforcing Other Non-Incarcerative Sanctions

In addition to directly restricting liberties with electronic monitoring, such monitoring can play an equally important role in making feasible a wide range of other non-incarcerative sanctions. For example, many existing intensive supervision programs (ISPs) require completing community service, attending rehabilitation or therapy programs, taking part in educational initiatives, paying fines, and taking certain prescribed medications (such as lithium for bipolar offenders, methadone for drug addicts, or libido-depressants for certain sex offenders). The monitoring conditions of an electronic prison sentence makes enforcing such non-incarcerative sanctions much easier and more reliable. For example, an offender required to pick up trash in their community could easily be monitored via a body camera instead of being assigned to a work detail with a physical supervisor. Similarly, ensuring an offender attends required therapy or training sessions becomes simpler through utilizing location tracking instead of having a more elaborate cross-checking system with independent session providers. Enforcing some requirements would simply not be feasible without electronic monitoring. For example, an offender required to engage in prescribed daily journaling, reading, or exercise could easily shirk such activities, but visual surveillance could verify compliance.

The monitoring capabilities of electronic prison allows for a near-infinite tailoring of punitive restrictions on locational, social, and personal freedoms (prohibitions) enhanced by the ability to verify compliance with additional requirements (prescriptions) mandating the completion of a variety of other non-incarcerative tasks or penalties. Indeed, electronic monitoring enables a wider range of non-incarcerative sanctions, and its availability is likely to generate broader interest in exploring additional non-incarcerative sanction possibilities.<sup>51</sup> One problem holding back the development of non-incarcerative sanctions has been the difficulty in monitoring and controlling an offender during their non-prison punishment, but electronic monitoring can resolve this concern. Once there is much less concern about the safety of using such sanctions, there is likely to be more development and experimentation with them.

Fortunately, there is no need to start from scratch as various jurisdictions, both within the US and overseas, have already experimented with a wide range of such alternatives.<sup>52</sup>

All non-incarcerative sanctions carry some punitive effect, and when properly combined, they can equal the punitive effect of a prison sentence. For example, one study found that respondents perceived ISPs or home confinement for two years as more punitive than six months in prison.<sup>53</sup> Thus, while electronic monitoring conditions restricting locational, social, and personal freedoms are likely to generate significant punitive effect by themselves, an electronic prison sentence can also include any conceivable other non-prison punishment to satisfy the overall punitive effect called for by the seriousness of the offense and the blameworthiness of the offender.

## IV. Making Electronic Prison Work

While an electronic prison system may clearly work in theory, there are several important considerations necessary for making it work in practice. Any attempt at implementing electronic prison should start small, and electronic prison sentences should be offered to less dangerous offenders initially. It makes sense to start “safe” by offering electronic prison only to non-violent offenders without a history of violent crimes.<sup>54</sup> Based on the results of this initial offering, electronic prison could be offered to ever wider groups of prisoners, though some, as noted below, will never be seen as eligible for an electronic prison sentence. But even excluding all of the most serious offenders, such as murderers and rapists, we speculate that implementing electronic prison sentences could decarcerate over two-thirds of state prisoners and a large majority of federal prisoners.

Section A discusses how to ensure punitive equivalency between electronic and physical prison sentences. Section B considers eligibility criteria for receiving an electronic prison sentence. And Section C describes the feasibility, costs, and savings of switching prisoners from physical incarceration to electronic prison.

### A. Ensuring Punitive Equivalence Between Electronic and Physical Prison Sentences

One of the difficulties in implementing an electronic prison system is getting the correct equivalency ratio between a brick-and-mortar prison sentence and an electronic prison sentence. Given ordinary people’s deep-seated commitment to the importance of doing justice,<sup>55</sup> anything less than punishment equivalency will doom non-incarcerative sanctions to political oblivion. Anti-punishment or punishment-reducing advocates will argue for imposing the bare minimum restrictions necessary for securing public safety, but this will prevent widespread adoption because the public will only accept electronic prison if it is seen as delivering a just punishment.

Previous research reveals that the public believes intermediate sanctions severer than probation but less than prison do have a punitive effect that can equal some prison sentences of less than two years.<sup>56</sup> But more work needs to be done to ascertain public views on what electronic prison conditions and non-incarcerative sanctions would equal longer prison sentences. Increasing the length of the electronic prison sentence relative to a physical prison

sentence will of course be necessary. It could be that a four-year electronic prison sentence with restrictive conditions (e.g., only allowing for travel to and from one's workplace plus other liberty or privacy restrictions) would be seen as equaling a two-year prison sentence. More punitive electronic prison conditions will require smaller increases in sentence length to match the punitive effect of incarceration.

It seems likely that most prison sentences can be equaled in the public's view by a sufficiently creative application of electronic prison conditions and other non-incarcerative sanctions. There will be exceptions of course: life or ultra-long sentences for the most serious offenses are unlikely to be seen as having non-prison equivalents. An offender committing a particularly heinous crime may not live long enough to get the punishment he deserves through electronic prison. Where the exact line should be drawn in setting punishment equivalencies requires public research, and the justice system should err on the side of caution when rolling out electronic prison sentences lest over-leniency poison the reputation of electronic prison going forward.

Establishing an equivalency table is also important because if prisoners violate their electronic prison conditions to a sufficient extent, they will be sent to physical prison for the remainder of their sentence. If, for example, a prisoner given a two-year prison sentence/four-year electronic prison sentence was one year into their electronic prison sentence but violated the conditions enough to be sent to actual prison, they would only need to serve one-and-a-half years in prison because they had already completed 25 percent of their punishment (although depending on the nature of the violation, an additional penalty might apply).

Ideally, sentencing judges should be able to convert a recommended prison sentence directly to an electronic prison sentence using an equivalency table established by an Electronic Prison Commission that would be responsible for supervising the electronic prison system and ensuring the equivalency table reflected what the public views as a just punishment. While perhaps of less direct importance to maintaining the criminal law's moral credibility with the community, it would also be useful to determine electronic prison equivalencies in the views of prisoners. This is relevant because if offenders see the existing equivalencies used by the system as making electronic prison massively lenient compared to physical prison, that view will both undermine deterrence and eventually become known to the public, thus undermining the system's credibility in the eyes of the whole community. At the same time, it is natural that many prisoners will prefer an electronic prison sentence to an equivalently punitive physical prison sentence because the electronic prison sentence creates more opportunities for rehabilitation and reintegration while avoiding the worst dangers of physical prison. While the hardened offender dead-set on a life of crime may prefer to undergo the shorter physical prison sentence in order to reoffend unmonitored sooner, most prisoners are likely to prefer the longer electronic prison sentence that will have better outcomes for their own lives.

Our view is that once an electronic prison sentence is offered to an offender, the choice to accept should be entirely voluntary. Convicted offenders may reject electronic prison sentences in favor of the equivalent physical prison sentence, perhaps because it is shorter. Similarly, if at any point an electronic prisoner decides they wish to serve the remainder of their sentence in prison, this should be allowed. The voluntary nature of accepting electronic prison will go far to allay concerns that it is violating privacy or other rights to an unacceptable degree, since electronic prisoners will always have the option to leave the program.

## B. Eligibility for Electronic Prison

Some categories of offenders ought to be ineligible for electronic prison. First, those offenders who are not sufficiently rational to appreciate the high likelihood of being caught and punished for an offense while under the control of electronic prison monitoring ought not be released. Most offenders, if they know that reoffending is almost certain to be detected and lead to worse punishment than they are currently experiencing, will choose not to reoffend. Deterrence is mainly produced by certainty of punishment, after all.<sup>57</sup> Most offenders would not have committed their original crime if they believed they would almost certainly be caught and receive their current punishment. However, there is a category of extremely impulsive (often resulting from psychopathy) or mentally ill offenders who will not rationally respond to incentives but will reoffend if physically capable of doing so. The sadistic killer who would happily murder someone even though his crime was being recorded by a body camera should not be given an electronic prison sentence.

In order for a prisoner to receive an electronic prison sentence, the sentencing judge should have to find that the available evidence indicates the prisoner is rational enough to respond to the incentives of electronic prison and not reoffend. This judgement would be made based on the offender's history, the circumstances of their crimes, and the recommendation of prosecutors. Such judgements could also be aided by a psychiatric examination. A prisoner who had repeatedly committed highly impulsive crimes in circumstances they could reasonably expect would lead to their capture should not be given electronic prison.

There is also the problem of prisoners who have no place to live during an electronic prison sentence. Such homeless prisoners make up about 10% of the current incarcerated population,<sup>58</sup> and there are also likely to be some prisoners who live with others who would refuse to have them returned under an electronic prison arrangement. One might consider providing free government housing for these offenders,<sup>59</sup> but the provision of free private housing and living stipends for indigent criminals is likely to undercut the punitive nature of electronic prison for such offenders, and the public is likely to see the resulting arrangements as rewarding crime, not punishing it. Perhaps this reflects an irrationality on the part of the public, but ensuring electronic prison sentences are seen as just punishment is an essential part of getting any such scheme implemented, as well as necessary for upholding the just punishment purpose of the justice system. One possibility is to place homeless and indigent offenders in halfway houses that would then function essentially as very low-security prisons allowing offenders to leave under certain conditions (such as to work or procure necessities). Such facilities would be cheaper than physical prisons but would not be seen as rewarding crime in the same way renting an apartment for an offender and sending them checks would be.

## C. Costs and Savings of a Shift to Electronic Prison

There is a compelling economic case for shifting offenders to electronic prison. Even using conservative estimates, electronic monitoring is cheaper due to the large savings from not having to pay for a prisoner's upkeep. On average, it costs over \$30,000 a year to incarcerate a prisoner in a physical prison. By contrast, even if we assume an electronic prisoner's location monitoring bracelet costs \$800 and their body camera equipment (if used) costs \$1000 for procurement and data storage, this would still total less than \$2000 in equipment even if new



equipment was purchased each year for each prisoner (which it would not need to be). The other significant cost of electronic prison would be monitoring officers who would keep tabs on prisoners similar to parole or probation officers.

There is the possibility that AI programs could minimize the number of human monitoring officers,<sup>60</sup> but we are not very optimistic about this occurring, at least in the short-term when implementation is starting. The transition to electronic prison is not likely to eliminate many prison personnel positions at first (though the job of prison personnel will change). While officers will likely not be required to sit in front of a dozen continuous video feeds, they will be required to do regular checks, review footage, and adjudicate concerns. Simple processing of data produced from electronic monitoring can be done by automated programs certainly: a program could instantly identify when an offender violates location boundaries and issue a warning, could alert officers to when equipment is being improperly turned off or tampered with, or even when an offender's body camera footage or audio contains certain prohibited abnormalities: such as the presence of another person during a time when an offender is supposed to be in isolation. However, a large number of officers will still need to be present to handle the multitude of possible issues that will arise during electronic monitoring, especially as the program is initially developed. Similar to parole officers, electronic monitoring officers will have to make decisions about what violations warrant additional restrictions, sanctions, or even placement in a physical prison. Violations judged to likely be unintentional and harming no one should be dealt with by warnings. Intentional violations of conditions ("testing the limits") should be dealt with at first by minor additional sanctions (such as placing temporary additional restrictions on the prisoner) and escalate with reoccurrence. The commission of a new crime while on electronic prison monitoring should result in being sent to physical prison (although most violators, depending on the nature of the offense, ought to remain eligible for transfer to electronic prison in the future). Guidelines for punishing electronic prisoners' violations should be created by the Electronic Prison Commission, but ultimately, some discretion will have to be left to case officers.

Since federal community supervision programs cost about \$4000 per prisoner (and involve case officers), the cost of electronic prison envisioned here is not likely to be much larger. Even assuming a very high \$10,000 cost per year per electronic prisoner, this would still represent a 66% saving on current incarceration costs per prisoner per year. Savings are likely to be even more dramatic over time, but more than halving the cost of incarceration per prisoner is probable even during the initial implementation phase. One-time transition costs are likely to be dwarfed by the costs of building new prisons. For example, proposals to build a new prison in DC that would house "4,000 to 6,000 inmates could cost between \$400 million and \$750 million. The annual operating costs for such a facility would range between \$180 million and \$230 million."<sup>61</sup> By contrast, the costs for starting and operating an electronic prison system for 6,000 prisoners would be less than half that.

There is also the possibility that some of the electronic monitoring costs might be passed on to prisoners, as is currently the case with many electronic monitoring programs, but this is likely to prove controversial and raise questions of disparate punishment treatment based on economic status. In our view, it is best that any fines be imposed directly by a judge on offenders as part of their non-incarcerative punishment instead of creating a set of hidden fines through requiring electronic prisoners to pay for their own monitoring.

## V. Potential Objections to Electronic Prison

Probably the greatest obstacle to implementing electronic prison will be the simple inertia of any governmental policy. However, electronic prison is also likely to face a number of objections from across the political spectrum. The most likely objections are considered in turn.

### A. Human/Civil Rights Objections

Strange as it may seem, implementing an electronic prison system capable of emptying many physical prisons is still likely to face pushback from some decarceration advocates due to concerns over prisoners' human or civil rights. For example, many of those advocating for ending "mass incarceration" also urge restrictions on expansions of electronic monitoring. The ACLU has publicly advocated for ending electronic monitoring, with one ACLU official explaining "Far from being an alternative to incarceration, electronic monitoring is incarceration in another form: e-carceration."<sup>62</sup> There are concerns that electronic monitoring violates an individual's privacy rights and imposes undue financial hardship since many current electronic monitoring schemes pass on the cost of the monitoring to offenders in the form of fees. However, most of these criticisms of electronic monitoring occur in the context of using electronic monitoring pretrial instead of using it as a substitute for a prison sentence. While being released on electronic monitoring is clearly better than sitting in a jail cell, the question of how intrusive or costly such pretrial surveillance can or should be is worthy of debate. However, this article is concerned with the use of electronic monitoring arrangements for convicted and sentenced offenders—not pretrial detainees who have a constitutional right to be considered innocent until proven guilty. Still, we anticipate some will oppose electronic prison as a violation of privacy (the privacy objection) or as a violation of generic human rights due to its punitive or over-punitive nature (the anti-punishment objection).

#### 1. Responding to the Privacy Objection

Some may argue that electronic monitoring represents an egregious violation of privacy, perhaps even more so than what one would experience in prison. This objection fails in three ways. First, under our proposal, convicted offenders would have the choice to accept an electronic prison sentence or opt for the equivalent brick-and-mortar prison sentence. Moreover, they could choose to shift to physical prison at any point in their electronic prison sentence. As a result, to the extent the privacy intrusions are greater than prison under electronic monitoring, they are voluntarily assumed and continue only with the prisoner's consent. Second, when considered holistically, electronic prison is likely to be far less invasive than a physical prison sentence. Spending time in prison completely removes an offender from society, their job, their family, and subjects them to the possibility of surveillance at any time as well as forcing them to share living accommodations with potentially violent strangers. The idea that actual prison is somehow less invasive or disruptive than electronic prison is simply not believable. Third, the intrusion of privacy entailed by electronic prison is part of the punishment for the offender's crime. The Supreme Court has found that prisoners do not have a right to privacy in a physical prison because the privacy deprivation is part of the punishment being

imposed.<sup>63</sup> Electronic prison conditions are meant to be punitive, and so when properly proportioned to be just, such invasiveness furthers the key goal of any criminal sentence – just punishment – while offering a better opportunity to advance other goals, such as rehabilitation, training, education, and reintegration. The question of how restrictive and invasive electronic prison should be depends on the offender and offense, and while people will have different opinions on exactly how to tailor a just sentence, there is no conceptual reason to reject the use of electronic prison because it invades privacy and could theoretically be unjustly punitive if that invasion is not proportioned correctly. Obviously putting a shoplifter in electronic prison for life would be unjust, but this is not an argument against electronic prison, but merely a caution that it must be justly proportioned, as is the case with any punishment method.

## 2. Responding to the Anti-Punishment Objection

Often underlying a human rights objection to electronic monitoring is a fundamental objection to imposing punishment on criminal offenders, or at least a belief that current punishment levels need to be drastically reduced. Punishment abolitionists see any form of punishment for the sake of doing justice as barbaric and a violation of human rights. Under such a view, the only appropriate sentence would be purely therapeutic in nature that minimized any punitive effect as much as possible. As argued previously, we believe that such opposition to punishment generally is wrongheaded and destined to always remain a view held primarily by privileged academics. The vast majority of ordinary people will always wish to see a just punishment imposed on criminal offenders. Completely violating these deep-seated intuitions of justice in the community would simply lead society to become chaotic and dangerous. Moreover, in a democratic society, the overwhelming demand from the public for imposing deserved punishment on criminal offenders can only be ignored by advocating for undemocratic elitism verging on enlightened authoritarianism.

The anti-punishment objection may also be advanced in a lesser form by those who do not oppose all punishment but rather see current punishment levels as grossly over-punitive. Such punishment-reducers might see any attempt to maintain equivalency between electronic prison sentences and current physical prison sentences as unjust or inhumane because it seeks to preserve the punitive effect of prison via a different punishment method. Such punishment-reducers are welcome to try to change societal views on the amount of punishment required to do justice (and if societal views change, electronic prison sentences should change accordingly), but they should not attempt to undemocratically impose those views. Doing so would simply erode the moral credibility of the law, generate more crime, and lead to a punitive societal backlash.

But putting aside the importance of imposing just punishment as society sees it (as opposed to what an elite minority might consider just punishment), the anti-punishment objection to electronic prison still fails to convince on a practical level. Anti-punishment and punishment-reducing reformers acknowledge prison is harmful and wish to decarcerate as many offenders as possible. How can offering a large portion of offenders a choice to leave physical prison be a step in the wrong direction? Even if an electronic prison system is still unjustly punitive from the perspective of anti-punishment and punishment-reducing advocates, it is at least not as destructive as the punishment of physical prison. As a result, even the committed punishment abolitionist should support implementing an electronic prison system as

a step toward improving prisoners' (and society's) well-being. Standing in the way of electronic prison is tantamount to defending the existing prison system—something no decarceration advocate should ever wish to do. Even if one is ideologically committed to the view that any punishment (including electronic prison) is an unjust violation of an offender's human rights, at least electronic prison is a less severe violation of those rights than physical prison.

## B. Public Safety Objections

It seems likely that the strongest, and most politically salient, objection to electronic prison will come not from punishment abolitionists but from those concerned with public safety. The public may be skeptical of letting criminals back into the community where the prison walls are only virtual. Few politicians with a sense of self-preservation want to be known for letting dangerous criminals out of prison to victimize their constituents. Voices on the political right that have eviscerated bail reform and other perceived "soft on crime" policies aimed at decarceration will also likely have deep concerns about letting criminals out of physical prison to potentially reoffend. These concerns for public safety are valid, but they should be taken as a warning to adopt the right electronic monitoring measures, not as a conceptual argument against electronic prison.

Some have proposed addressing public safety concerns through the use of "conducted electricity devices" (CEDs) that would allow for the remote disabling of prisoners who violate their electronic prison conditions. Essentially, a remote-controlled taser would be attached to the prisoner at all times to ensure compliance. However, numerous difficulties, including the short effect of tasers, make this option infeasible in our view.<sup>64</sup>

Fortunately, a physical kill-switch is not necessary for controlling most prisoners' behavior. The vast majority of criminals commit crimes because they believe (with good justification given outrageously low punishment rates) that they will escape punishment for their crimes. A properly implemented electronic prison system will make the chance of detection and punishment for new crimes so high that most offenders will choose self-preservation by not reoffending. Nor are offenders likely to forget in the heat of the moment the likelihood of detection given the ever-constant reminder of wearing a location tracker and possibly audio/visual recorders as well. Since one of the eligibility conditions for receiving electronic prison is rationality sufficient to respond to strong deterrent incentives, it is unlikely there will be many electronic prisoners who reoffend impulsively while knowing punishment is highly likely. Additionally, since electronic prison would start with non-violent offenders, the system would be thoroughly tested and vetted before more dangerous offenders were given the chance to receive electronic prison sentences. This should allay public concerns about a horde of potential murderers, rapists, robbers, and assaulters pouring out of physical prison into an untested system.

In fact, electronic prison is likely to significantly improve public safety by lengthening the time period when it is difficult for prisoners to reoffend due to intensive monitoring. For example, a four-year electronic prison sentence for a burglar is likely to prevent any repeat burglaries for at least four years, while a physical two-year prison sentence for the same burglar will only protect the community for two years. Of course, some few electronic prisoners may foolishly choose to commit new crimes even while being monitored—new crimes that are very

likely to be detected. Indeed, it is better for society that a determined recidivist reoffend in a monitored environment where the crime can be detected and punished than in an unmonitored environment post-prison where the offender is likely to escape and go on a continued crime spree. Any prisoner foolish enough to reoffend under strict monitoring conditions would almost certainly have reoffended after being released from physical prison, so in such cases, electronic prison is still making society safer by allowing the reoffender to be promptly punished and incapacitated. Instead of opposing electronic prison, public safety advocates should make sure monitoring conditions are strict and that those few new crimes committed by electronic prisoners are vigorously prosecuted to reinforce the (true) perception among electronic prisoners that new crimes will lead to capture, punishment, and a physical prison sentence both for the new crime and the remainder of their previous sentence.

Ultimately, the benefits to public safety should actually be one of electronic prison's greatest selling points. In addition to lengthening the time when reoffending is difficult, electronic prison may also lower the overall rate of recidivism by allowing offenders to more easily reintegrate with law-abiding society. At the very least, public safety skeptics should acknowledge electronic prison deserves significant testing so the actual empirical effects on crime and recidivism can be known.

### C. Justice Objections

In addition to concerns over prisoners' rights and public safety, some are likely to be skeptical about electronic prison's ability to justly punish criminals. Given that the justice system already regularly and intentionally fails to do justice in so many criminal cases,<sup>65</sup> it seems that an electronic prison system would allow for even more disproportionately low punishments to be implemented by the same anti-punishment policymakers who are indifferent to the current failures of justice in punishing crime.<sup>66</sup> But once again, this is not a conceptual argument against electronic prison but only an important caution for how an electronic prison system should be implemented. A key part of our proposal, as discussed in Part IV, is to ensure electronic prison sentences are seen by society as equally punitive as the alternative physical prison sentences. Indeed, verifying such equivalencies could be a legal requirement as part of a legislative bill enacting an electronic prison system. The Electronic Prison Commission should be legally required to conduct regular testing to ensure equivalence in public perceptions of electronic and physical prison sentences. This would allay the concerns of justice advocates who might otherwise see electronic prison as a get out of jail free card allowing even more criminals to escape just punishment. While of course there will be anti-punishment, or punishment-reducing, activists who attempt to use the electronic prison system to incrementally reduce punishments below a level the public sees as just, that same possibility exists in the physical prison system as well.

### D. The "Net Widening" Objection

One significant concern about electronic monitoring has been its potential "net-widening" effect, whereby offenders who would previously have received probation or unmonitored community sentences might be given electronic prison sentences with greater surveillance and restrictions on their freedom.<sup>67</sup> However, as with other objections to electronic

prison, this should be a caution about the importance of proper implementation, not a reason to reject the reform. Electronic prison actually provides the justice system with more nuanced punishment options—it does not demand over-punishment of minor offenders. Some offenders deserve probation, some deserve more serious non-incarcerative sanctions, and some deserve incarceration. The largely binary choice between prison and probation in the current system means that some offenders receive unjust leniency with a probation sentence, and some receive unjust harshness with a prison or jail sentence. Electronic prison offers an opportunity to improve justice in both cases by providing a more nuanced punishment spectrum. Electronic prison is a powerful tool for implementing just non-incarcerative sentencing, and it should not be abandoned because it can be misused any more than hammers or shovels should be abandoned because they can hurt people. All punishment systems can fail to provide a just sentence, but electronic prison is likely to decrease these failures instead of increasing them.

Moreover, while the question of what electronic monitoring conditions and restrictions should be applied pretrial is worthy of debate, our electronic prison proposal is meant to replace current incarcerative sentences postconviction. While we believe there is significant room to improve pretrial release systems with electronic monitoring methods, those are reforms separate from achieving decarceration of convicts through electronic prison.

It is also worth pointing out that no matter how strong the concern over net widening, the alternative is keeping the current incarceration system—a much worse outcome than embracing electronic prison even if it did increase the monitoring of, or restrictions on, some offenders who might otherwise get less punishment they deserve by being put on probation rather than going to prison. The societal costs of even extreme net widening still pale compared to the benefits of decarcerating potentially 50% or more of the current prison population.

## VI. Conclusion

America's correctional institutions do very little correcting. Instead, society pays around \$100 billion a year to house, feed, and control criminal offenders, while training them for future lives of crime. America needs to find alternatives to incarceration, but most paths to decarceration are doomed to fail if they ignore society's demand for imposing just punishment. Much has been written about the problems with prison, but few workable solutions have been offered. Whether due to anti-punishment inclinations or a failure to recognize the possibilities of new technology, many reformers have offered the public and policymakers a stark choice between continuing the current flawed incarceration system or letting most offenders go with an unacceptably lenient slap on the wrist. We argue for a third option capable of winning bipartisan support from committed prison abolitionists and law-and-order advocates alike. An electronic prison system utilizing a variety of tailored monitoring methods and non-incarcerative sanctions can equal the punitive effect of many prison sentences, allowing for the imposition of just punishment while dramatically reducing the costs of incarceration. Such a system can preserve public safety, improve offender outcomes, and do justice. Campaigning for and implementing such a system should be the highest priority for anti-prison activists concerned with ending mass incarceration. Electronic prison opens a just path to decarceration. For the good of prisoners and society, reformers must walk it.

## NOTES

<sup>1</sup> Paul H. Robinson, Colin S. Diver Professor of Law, University of Pennsylvania. We thank Sarah M. Robinson for her significant research contributions and Sandra Mason, Paul Heaton, and David Rudovsky for their useful comments.

<sup>2</sup> Bachelor of Arts in Philosophy, Politics, and Economics, 2022, and Master of Science in Behavioral and Decision Sciences, 2023, University of Pennsylvania. JD candidate, University of Pennsylvania Carey Law School Class of 2027.

<sup>3</sup> Ben Grunwald, *Toward an Optimal Decarceration Strategy*, STAN. L. & POL'Y REV. 33, 1 (2021).

<sup>4</sup> While some decarceration supporters openly identify as anti-punishment, others may still support deserved punishment as one of a number of other—sometimes more important—goals in sentencing (such as promoting societal equity and individual rehabilitation). But even these decarceration advocates who support some punishment may hold views about what constitutes a just punishment that are radically at odds with the community. For example, a decarceration supporter who believes all prison sentences should be cut by 50%, 75%, or 90% may still value punishment in their own mind, but they do not value doing justice as the community sees it. For an expanded discussion of different views on desert-based punishment, see Paul H. Robinson & Jeffrey Seaman, *Conflicting Theories on the Proper Role of Just Deserts: Irrelevant, Complementary, or Inviolate?* (forthcoming 2025).

<sup>5</sup> For a notable exception see, Mirko Bagaric, Dan Hunter, & Gabrielle Wolf. *Technological Incarceration and the end of the Prison Crisis*. 108 J. CRIM. L. & CRIMINOLOGY 73, 73-135 (2018).

<sup>6</sup> Our focus on ensuring just punishment equivalencies is this Article's primary improvement on Bagaric et al.'s proposal for an electronic prison scheme, though we also believe their proposed controversial use of remote disabling devices can be safely dispensed with (see note 62).

<sup>7</sup> Many progressives use the term "justice" to refer to "social justice," which to some can mean opposing the imposition of individually deserved punishment in favor of pursuing equity for systemically disadvantaged groups.

<sup>8</sup> For example, where 41% of sentenced felons received prison sentences, 28% received jail sentences, and 31% received non-incarcerative sentences. See Sean Rosenmerkel, Matthew Durose & Donald Farole, *Felony Sentencing in State Court 2006 – table 1.2 (2006)* <https://bjs.ojp.gov/library/publications/felony-sentences-state-courts-2006-statistical-tables-standard-error-tables#:~:text=In%202006%20an%20estimated%2069,and%2011%20months%20in%202006>,

<sup>9</sup> *The Pioneer in United States Prison Labor*, PENNSYLVANIA DEPARTMENT OF CORRECTIONS,

<https://www.cor.pa.gov/PCI/Pages/History.aspx#:~:text=The%20Pennsylvania%20penal%20system%2C%20originating,labor%20in%20houses%20of%20correction>.

<sup>10</sup> Andrew G. Coyle, *Prison*, ENCYCLOPEDIA BRITANNICA, 22 Mar. 2024, <https://www.britannica.com/topic/prison>. Accessed 9 April 2024.

<sup>11</sup> Paul H Robinson & Jeffrey Seaman, *Mass Incarceration Myths and Facts: Aiming Reform at the Real Problems*, forthcoming AM. J. CRIM. LAW, 2024.

<sup>12</sup> Mariel Alper, *Update on Prisoner Recidivism: A 9-year Follow-up Period (2005-2014)*, BJS (2018)

<https://bjs.ojp.gov/library/publications/2018-update-prisoner-recidivism-9-year-follow-period-2005-2014>.

<sup>13</sup> Matthew Durose & Leonardo Antenangeli, *Recidivism of Prisoners Released in 34 States in 2012, A 5-year Follow-up Period (2012-2017)*, (2021), BJS, <https://bjs.ojp.gov/library/publications/recidivism-prisoners-released-34-states-2012-5-year-follow-period-2012-2017>.

<sup>14</sup> Paul Gendreau, Francis T. Cullen & Claire Goggin. *The Effects of Prison Sentences on Recidivism*. Ottawa: Solicitor General Canada, (1999); William D. Bales, & Alex R. Piquero, *Assessing the Impact of Imprisonment on Recidivism*, 8 J. EXP. CRIMINOL., 71-101 (2012).

<sup>15</sup> One study found that “greater time served initially increases recidivism but then, after approximately one year, decreases it, and, after approximately two years, exerts no effect.” See Daniel Mears, et al, *Recidivism and Time Served in Prison*, 106 J. CRIM. L. & CRIMINOLOGY 81, 85 (2016).

<sup>16</sup> Gendreau, supra note 12, at 6.

<sup>17</sup> Daniel S. Nagin, Francis T. Cullen & Cheryl Lero Jonson. *Imprisonment and Reoffending*, 38 CRIME AND JUSTICE, 115 (quote from abstract) (2009).

<sup>18</sup> *Economics of Incarceration*, PRISON POLICY INITIATIVE,

[https://www.prisonpolicy.org/research/economics\\_of\\_incarceration/](https://www.prisonpolicy.org/research/economics_of_incarceration/); 80 billion is the most cited number, but a full accounting of government costs related to corrections is likely over 90 billion. See Michael McLaughlin et al, *The Economic Burden of Incarceration in the United States*, Institute of Justice, Research and Development, at 6,

[https://ijrd.csw.fsu.edu/sites/g/files/upcbnu1766/files/media/images/publication\\_pdfs/Economic\\_Burden\\_of\\_Incarceration\\_IJRD072016\\_0\\_0.pdf](https://ijrd.csw.fsu.edu/sites/g/files/upcbnu1766/files/media/images/publication_pdfs/Economic_Burden_of_Incarceration_IJRD072016_0_0.pdf).

<sup>19</sup> *Incarceration Costs Significantly More than Supervision*, UNITED STATES COURTS, Aug. 17, 2017, <https://www.uscourts.gov/news/2017/08/17/incarceration-costs-significantly-more-supervision>.

<sup>20</sup> *Federal Location Monitoring*, UNITED STATES COURTS, <https://www.uscourts.gov/services-forms/probation-and-pretrial-services/supervision/federal-location-monitoring>.

<sup>21</sup> Derek Gilna, *Electronic Monitoring becomes more Widespread but Problems Persist*, PRISON LEGAL NEWS, Oct. 9, 2017, <https://www.prisonlegalnews.org/news/2017/oct/9/electronic-monitoring-becomes-more-widespread-problems-persist/>.

<sup>22</sup> Doris Wells, *GPS Monitoring: An Effective, Cost-Savings Option*, CORRECTIONS TODAY, Jan/Feb (2014), <https://www.ojp.gov/pdffiles1/nij/244914.pdf>.

<sup>23</sup> Michael McLaughlin, et al, *The Economic Burden of Incarceration in the United States*, INSTITUTE OF JUSTICE - RESEARCH AND DEVELOPMENT, at 6, [https://ijrd.csw.fsu.edu/sites/g/files/upcbnu1766/files/media/images/publication\\_pdfs/Economic\\_Burden\\_of\\_Incarceration\\_IJRD072016\\_0\\_0.pdf](https://ijrd.csw.fsu.edu/sites/g/files/upcbnu1766/files/media/images/publication_pdfs/Economic_Burden_of_Incarceration_IJRD072016_0_0.pdf).

<sup>24</sup> Mark A Cohen, Ted R. Miller & Shelli B. Rossman, THE COSTS AND CONSEQUENCES OF VIOLENT BEHAVIOR IN THE UNITED STATES, 137 (1994). \$1 in 1994 is worth approximately \$2.09 in 2024.

<sup>25</sup> McLaughlin, supra note 23, at 6, [https://ijrd.csw.fsu.edu/sites/g/files/upcbnu1766/files/media/images/publication\\_pdfs/Economic\\_Burden\\_of\\_Incarceration\\_IJRD072016\\_0\\_0.pdf](https://ijrd.csw.fsu.edu/sites/g/files/upcbnu1766/files/media/images/publication_pdfs/Economic_Burden_of_Incarceration_IJRD072016_0_0.pdf).

<sup>26</sup> Bagaric, supra note 5, at 83.

<sup>27</sup> Alison Liebling, *Moral Performance, Inhuman and Degrading Treatment and Prison Pain*, 13 PUNISHM. SOC. 530 (2011).

<sup>28</sup> Sophie Angelis, *Limits to Prison Reform*, 13 UC IRVINE L. REV., 1, 2-3 (2022).

<sup>29</sup> John Dilulio, *The Numbers don't Lie; It's the Hard Core doing Hard Time*, BROOKINGS INSTITUTE, Mar. 17, 1996, <https://www.brookings.edu/opinions/the-numbers-dont-lie-its-the-hard-core-doing-hard-time/>. “Nationally representative BJS data indicate that about one in four criminal cases, including nearly one in three violent criminal cases, is dismissed, and just 54 percent of violent offenses result in prison confinement. Most traffic, misdemeanor, and nonviolent felonies that end in conviction bring their perpetrators fines, restitution, deferred sentences, day reporting, home confinement, electronic monitoring, community service, or the ubiquitous probation. Less serious offenders comply well with these sanctions, complete their sentences, and exit the justice system, but even serious offenders receive these opportunities if their underlying charges are not grave.” Matt DeLisi & John Paul Wright, *Mass Incarceration Hysteria*, CITY JOURNAL, Spring 2022, <https://www.city-journal.org/article/mass-incarceration-hysteria>.

<sup>30</sup> As one prison abolitionist tract explains, “Abolitionists believe reconciliation, not punishment, is a proper response to criminal acts.” See [https://www.prisonpolicy.org/scans/instead\\_of\\_prisons/nine\\_perspectives.shtml](https://www.prisonpolicy.org/scans/instead_of_prisons/nine_perspectives.shtml)

<sup>31</sup> Lauren-Brooke Eisen, *How Many Americans are Unnecessarily Incarcerated*, BRENNAN CENTER, Dec. 9, 2016, <https://www.brennancenter.org/our-work/research-reports/how-many-americans-are-unnecessarily-incarcerated>.

<sup>32</sup> Paul H. Robinson, INTUITIONS OF JUSTICE AND THE UTILITY OF DESERT, CH. 3 (2013).

<sup>33</sup> See *Id.*, Paul H. Robinson, DISTRIBUTIVE PRINCIPLES OF CRIMINAL LAW: WHO SHOULD BE PUNISHED AND HOW MUCH? ( 2008); Paul H. Robinson & Lindsay Holcomb, *The Criminogenic Effects of Damaging Criminal Law's Moral Credibility*, 31 S. CAL. INTERDISC. L.J. 277 (2022); Paul H. Robinson, Geoff Goodwin & Michael Reisig, *The Disutility of Injustice*, 85 NYU L. REV.1940 (2010).

<sup>34</sup> Ben Grunwald, *Toward an Optimal Decarceration Strategy*, 33 STAN. L. & POL'Y REV. (2022).

<sup>35</sup> One enlightening study of public opinion conducted by the United States Sentencing Commission found that mean public recommended sentences were higher than guideline sentences for almost all crimes. And this study did not even consider early release policies. See Richard P. Conaboy, *Survey of Public Opinion on Sentencing Federal Crimes*, UNITED STATES SENTENCING COMMISSION, Mar. 14, 1997, <https://www.ussc.gov/research/research-reports/survey-public-opinion-sentencing-federal-crimes>.

<sup>36</sup> John Gramlich, *U.S. Public Divided over whether People convicted of Crimes Spend too much or too little Time in Prison*, PEW RESEARCH CENTER, Dec. 6, 2021, <https://www.pewresearch.org/short-reads/2021/12/06/u-s-public-divided-over-whether-people-convicted-of-crimes-spend-too-much-or-too-little-time-in-prison/>.

<sup>37</sup> Robert E. Harlow, John M. Darley & Paul H. Robinson, *The Severity of Intermediate Penal Sanctions: A Psychophysical Scaling Approach for Obtaining Community Perceptions*, 11 J. QUANT. CRIMINOL. 71 (1995).



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<sup>38</sup> Grunwald, *supra* note 31, at 9.

<sup>39</sup> *Id.*

<sup>40</sup> Ashley Nellis, *The First Step Act: Ending Mass Incarceration in Federal Prisons*, THE SENTENCING PROJECT, Aug. 22, 2023, <https://www.sentencingproject.org/policy-brief/the-first-step-act-ending-mass-incarceration-in-federal-prisons/>.

<sup>41</sup> Wendy Sawyer & Peter Wagner, *Mass Incarceration: The Whole Pie 2024*, PRISON POLICY INITIATIVE, Mar. 14, 2024, <https://www.prisonpolicy.org/reports/pie2024.html>.

<sup>42</sup> *Id.*

<sup>43</sup> Robinson, *supra* note 29, ch. 3.

<sup>44</sup> William Spelman, *The Severity of Intermediate Sanctions*, 32 J. RES CRIME DELINQ 107(1995).

<sup>45</sup> Nazish Dholakia, *Electronic Monitoring Is an Extension of Mass Incarceration*, VERA INSTITUTE, Jan. 30, 2024, <https://www.vera.org/news/electronic-monitoring-is-an-extension-of-mass-incarceration>.

<sup>46</sup> Bagaric, *supra* note 5, at 103.

<sup>47</sup> Mirko Bagaric, et al, *Introducing Disruptive Technologies to Criminal Sanctions: Punishment by Computer Monitoring to Enhance Sentencing Fairness and Efficiency*, 84 BROOK. L. REV.1227, 1272, 1273 (2019).

<sup>48</sup> *How much does a Body Camera Cost?*, SJCAM, Dec. 20, 2023, <https://www.sjcam.com/blogs/how-much-does-a-body-camera-cost/>.

<sup>49</sup> *Cost and Benefits of Body-worn Camera Deployment*, POLICE EXECUTIVE RESEARCH FORUM, Apr. 2018, at 30, <https://www.policeforum.org/assets/BWCCostBenefit.pdf> at 30.

<sup>50</sup> Drug Patches, “ALL-OUT” BAIL BONDS, <https://www.all-outbailbonds.com/services/drug-patches/>.

<sup>52</sup> We note, for example, that there has been some significant interest in exploring non-incarcerative sanctions. A variety of jurisdictions have used such sanctions as: Verbal sanctions, such as public admonitions, reprimands, and warnings; Status penalties that deny the offender specified rights in the community. Such a penalty might, for example, prevent someone convicted of fraud from holding a position of trust as a lawyer or director of a company; Fines either one-time or continuing for a fixed period of time; Asset forfeiture in cases where the court has evidence showing that money found in the possession of the offender is the product of the crime; Restitution to the victim, perhaps resulting from a restorative justice meeting where the victim lists tasks they wish the offender to complete either for them or the community; Community service, which can involve a wide range of required activities; Government work requirements, which require offenders to engage in certain work for the government for a certain period of time, such as work on state park maintenance crews or the like; Participation in or completion of a treatment or training program; Referral to an attendance center, a facility where the offender spends the day, returning home in the evenings. Attendance centers, also known as day reporting centers, may provide a centralized location for a host of therapeutic interventions, training programs, or drug treatment. While technically involving incarceration, periodic incarceration, such as weekends in jail, can impose some of the punitive effects of incarceration without most of the attendant costs. See, Paul H. Robinson, Jeffrey Seaman & Muhammad Sarahne, *CONFRONTING FAILURES OF JUSTICE: GETTING AWAY WITH MURDER AND RAPE*, forthcoming ROWMAN & LITTLEFIELD, (2023).

<sup>53</sup> Harlow, *supra* note 35 at 72.

<sup>54</sup> Bagaric., *supra* note 5, at 131, agree with this approach, urging that the system begin only property offenders.

<sup>55</sup> See Robinson, *supra* note 30, and Robinson & Holcomb, *supra* note 31.

<sup>56</sup> Harlow, *supra* note 35.

<sup>57</sup> Paul H. Robinson & Michael T. Cahill, *LAW WITHOUT JUSTICE: WHY CRIMINAL LAW DOESN'T GIVE PEOPLE WHAT THEY DESERVE*, 128 (2006).

<sup>58</sup> Bagaric, *supra* note 5, 116.

<sup>59</sup> Bagaric, *id.*, suggest the government provide free housing (and a stipend for living expenses if necessary) for such offenders so they could serve electronic prison sentences—since the government would otherwise pay for their upkeep in prison.

<sup>60</sup> This is the view of Bagaric, *id.* at 102.

<sup>61</sup> Emilia Calma & Yesim Sayin, *How much would it cost to Build and Maintain a new D. C. Prison*, D.C. POLICY CENTER, Mar. 8, 2023 <https://www.dcpolicycenter.org/publications/cost-new-dc-prison/>.

<sup>62</sup> *ACLU Report Recommends Eliminating Electronic Monitoring in Criminal Legal System*, ACLU, Sep. 29, 2022, <https://www.aclu.org/press-releases/aclu-report-recommends-eliminating-electronic-monitoring-criminal-legal-system>.

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<sup>63</sup> See *Hudson v. Palmer*, 468 U.S. 517 (1984).

<sup>64</sup> This proposal was made by Bagaric, *supra* note 56, at 107, who acknowledged it would be very controversial due to the dystopian image of prisoners crumpling due to shock collars controlled from afar. While we agree with Bagaric et al. that the prospect of a remote disabling device is not worse than what prisoners can expect in prison (where guards may use stun guns, batons, and all manner of force), we do not believe such devices are currently feasible. Contrary to some popular perceptions, tasers do not render a target unconscious but merely cause muscle convulsions lasting for a few seconds. If a prisoner was intent on violating their electronic prison conditions (such as by using a tool to remove their location tracker and leave their area of confinement) a taser shock lasting a few seconds would do nothing to prevent such a plan. Such a momentary disabling would likely not even prevent a violent assault (though it might delay it or give the victim time to flee). Because tasers require significant electrical charge, it would be infeasible to continuously shock prisoners until police could arrive on the scene. A standard police taser has two shots. Even if we imagined a prison stun gun was strapped to the prisoner's leg (a bulky encumbrance making life very difficult), authorities would be lucky to disable a prisoner for more than a minute before the CED ran out of charge. But even if we imagine a wearable shock bracelet could be developed that allowed for safe, longer lasting disabling, there would still be the problem of choosing when to disable the prisoner. A prisoner accidentally walking or driving outside their location boundaries should not necessarily be tazed continuously for 10-30 minutes until police arrive. Even in a violent altercation, a prisoner might be acting in self-defense or defense of others. Making a real-time decision to remotely taze a prisoner repeatedly might prove extremely difficult and would raise very real concerns about abuse by authorities. To be clear, we are not in principle opposed to the idea of remote CEDs being utilized as part of an electronic prison scheme if they are shown to be feasible and proper guidelines could be put in place for their activation. Indeed, their development might allow for certain classes of more dangerous criminals to receive electronic prison sentences. However, we do not believe they are necessary for implementing a largescale electronic prison system, and attempting to implement electronic prison should not be held up by controversy over CEDs.

<sup>65</sup> Robinson, *supra* note 50.

<sup>66</sup> Robinson, *supra* note 10.

<sup>67</sup> Kathy G. Padgett, William D. Bales, & Thomas G. Blomberg, *Under surveillance: An Empirical test of the Effectiveness and Consequences of Electronic Monitoring*. 5 CRIMINOLOGY & PUB. POL'Y 61-91 (2006)