

PATHS TO DECARCERATION:

ENHANCING COMMUNITY SAFETY AND JUSTICE

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OVERVIEW

This paper reviews and distills a wide array of recent social science literature and offers an evidence-based vision for how public safety can be maintained while relying less on the use of incarceration. We offer the following lessons from the literature. First, while interventions that increase economic opportunities have been shown to be effective in reducing criminal behavior, particularly income-generating crime, interventions which change how people think appear to be even more effective at reducing the types of crimes that most frequently lead to incarceration. Second, a wide variety of investments targeted towards children in disadvantaged neighborhoods appear to be effective and likely pay for themselves over time. Third, while there is a natural concern that diverting criminal defendants from traditional prosecution will erode the deterrence value of criminal sanctions, the evidence suggests that for first-time and younger offenders, individuals who have been diverted – either through a formal program or informally via “non-prosecution” – tend to be less likely to be re-arrested in the future. Fourth, the evidence suggests that law enforcement can play an important role in reducing the use of incarceration when police are visible and engage in high-value activities that deter crime or focus their arrest powers more intensively on violent and/or high-volume offenders; in doing so, they have the ability to reduce crime through deterrence and focused incapacitation without increasing the footprint of the justice system. Finally, there is potential to meaningfully reduce incarceration levels through sentencing reforms without compromising public safety – so long as the reforms are structured in such a way as to target the least criminally productive offenders, while retaining in custody those offenders who are most likely to commit the costliest offenses or who are likeliest to offend in high volumes.



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1. Introduction

The United States is known for its extraordinarily high rate of incarceration relative to other industrialized countries. While a portion of the cross-national differences can be explained by differing underlying levels of crime, differences in crime and violence do not fully explain why the United States is so much more punitive than other countries. While it is tempting to conclude from this thought experiment that the United States over-incarcerates, it is worth pointing out that there is strong evidence that, even at such high levels, imprisonment does reduce crime, including serious violence in the United States (Levitt 1996; Liedka, Piehl, and Useem 2006). One recent estimate suggests that a year of incarceration may abate as many as ten index crimes (Johnson and Raphael 2012). Hence, American exceptionalism in the use of imprisonment is not without a public safety rationale, although it comes at a cost.

At the same time, the public safety value of incarcerating the marginal defendant has fallen – probably considerably – since the 1980s when crime rates were approximately four times higher than they are today (Johnson and Raphael 2012). Evidence from recent sentencing reforms in California suggests that a significant reduction in the size of the prison population due to prison overcrowding litigation had only a modest impact on crime and reoffending, including perhaps little effect on violence (Lofstrom and Raphael 2017). One implication is that the public safety value of incarceration today is substantially lower than in the past and could even be counterproductive at the margin. A further implication is that there is potentially a wide scope for incarceration to be reduced without compromising public safety, as long as this is done in a thoughtful and evidence-based way.

Incarceration is costly both with respect to its direct costs (the average cost per inmate is \$33,274/per year) and indirect costs (e.g., lost earnings), not to mention the negative spillover effects that are internalized by community members who are socially and economically connected to people who are sent to prison. At scale, the over-reliance on incarceration may threaten the social fabric of entire communities, perpetuating cycles of poverty, low labor market attachment, and fatherlessness. Ultimately citizens will differ widely in their willingness to control crime through the use of expanded incarceration and, in our role as analysts of the social science literature, we do not take a position on what is the “correct” level of incarceration. At the same time, we note that regardless of one’s appetite for the use of incarceration to control crime, it is almost always more efficient to control crime through prevention and deterrence than through the use of incarceration. This is true for two reasons. First, since arresting, adjudicating and punishing offenders is costly, and since crime itself is costly to victims, crime prevention is likely to be less expensive than incapacitation. Second, a long litany of empirical research shows that, in general, individuals are deterred to a greater degree by the certainty of punishment than the prospect of a long sentence if apprehended (Nagin 2013; Chalfin and McCrary 2017). This empirical regularity suggests that public officials can get more bang for their buck by investing in crime prevention than from further investments in incarceration in the hopes of inducing a deterrent effect from lengthy carceral sentences. In short, while incarceration is and will likely remain a central tool in promoting public safety for years to come, it is essential to make investments in crime control through other channels.

Broadly speaking, there are three approaches to reducing the use of incarceration in an industrial society. The first approach is to choose to incarcerate fewer people who commit crimes – making greater use of other adjudication options, e.g., diversion and supervising more offenders in the community, rather than incapacitating offenders in prisons and jails. This approach has the advantage of reducing the many and varied harms of incarceration such as the destruction of human capital and the fraying of familial and community bonds.

However, given prevailing estimates of the crime control benefits of a year of incarceration in the absence of meaningful, cost-effective and scalable interventions to apply to these individuals, such an approach is likely to result in higher crime rates, at least in a number of circumstances. Given the demography of victimization which falls heavily on poor and disproportionately Black communities, the neighborhoods that will ultimately bear the costs of any increases in crime are likely to be the same disadvantaged communities that already suffer from high rates of victimization. It is thus important to recognize that while these communities stand the most to gain from the decreased use of incarceration, they also bear an outsize share of the risks if the approach is ineffective.

A second approach to reducing the use of incarceration is to recognize that since crime is extraordinarily concentrated among a relatively small number of individuals (MacDonald 2023), there are likely to be outsize benefits to engaging intensively with people who are already involved with the criminal justice system. By providing those individuals with a range of supports we might ultimately be successful in changing criminal thinking and creating incentives for those individuals to desist from crime. Social programs of this type are tailored either towards justice-involved individuals who currently reside in the community, are currently incarcerated, or have recently left prison and returned to the community. The stakes are high for this subpopulation and those who are connected to them through peer relationships and family ties. Since half of all federal and state prisoners are parents to at least one child (Maruschak, Bronson, and Alper 2021), these programs have the potential to reduce the use of incarceration not only for the current generation but will affect future generations as well. If these programs are effective, they can have enormous benefits. But effective programs are challenging to build and, for a variety of reasons, are even more difficult to take to scale. Recidivism thus remains a constant problem in our society despite the existence of a number of excellent social programs targeted to justice-involved individuals.

A related approach is to engage with individuals – particularly youth – who are considered to be at high risk of being involved in the criminal justice system. Such engagement can take many different forms ranging from investments in education to cognitive behavioral therapy to labor market supports such as summer jobs. The benefits to such an approach, if successful, are obviously very high. To the extent that an individual can be tipped to a different trajectory in their youth, significant costs – both to the individual and those in the community – can be abated. The challenges though remains the same – delivering services at a dosage sufficient to generate meaningful change and at a sufficient scale to realize the benefits in aggregate.

A final approach to reducing the use of incarceration is to engage in crime prevention efforts writ large – the idea being that if we are able to reduce crime in the first place, there will ultimately be fewer individuals to punish through the use of incarceration. Such efforts include investments in law enforcement as well as in social welfare programs (e.g., FoodStamps, HeadStart, and job opportunities) and other community- related investments in the built environment (e.g. remediating vacant lots, removing trash, and providing better ambient lighting) that are intended to sway or inoculate people from the types of risky decisions that can ultimately result in a prison spell. To the extent that these interventions prevent crime mostly through deterrence, they have the broad potential to improve public safety without leading to the greater use of imprisonment. An advantage of these approaches is that many of them are scalable. The disadvantage is that they are, by definition, less targeted.

In this paper, we provide a review of the academic literature on what works – and does not seem to work as well – to reduce levels of incarceration in the United States. We begin with a brief summary of what is known about the use of incarceration in the United States including its frequency and who bears its burdens, including its collateral harms. We then briefly summarize what we know about recidivism, the probability that an individual who has

been incarcerated will be re-offend upon being released from prison. Next, we turn to a summary of the empirical evidence on what works to reduce the use of incarceration, with an emphasis on evidence from the United States. We focus on research evidence from the most rigorous evaluations including randomized controlled trials and natural experiments which are credibly identified through other means. Recognizing that the world is constantly changing, we also focus on recent evidence, drawn mostly from the past decade or so. While we are interested in what works to reduce the use of incarceration writ large, we will be especially interested in policies or programs which have the potential to disrupt intergenerational cycles of offending since we know that incarceration is concentrated in the same communities through multiple generations.

The focus of the paper is intentionally broad. Disrupting intergenerational cycles of incarceration requires strengthening families and communities but it is also fundamentally a question of providing effective public safety. When law enforcement is not effective in providing a sense of safety and justice in a community, people tend to take matters into their own hands, setting disputes using violence instead of relying on the criminal legal system. When people do not see a way out of poverty, acquisitive crimes like robbery and larceny – or the drug trade – become an attractive means of making ends meet. Hence breaking cycles of incarceration likely requires a multi-faceted approach that involves pulling many different levers.

2. The Scale of Incarceration in the United States

There are three well-known facts about the U.S. incarceration rates: 1) the United States is an outlier among all other countries, 2) the use of incarceration increased dramatically during the “tough on crime” era in the 1980s before plateauing in 2010 and gradually declining in more recent years, and 3) incarceration rates have remained high in recent years despite large drops in the violent crime rate.

The U.S. incarceration rate in 2021 was 664 per 100K people, which outranked all other countries with El Salvador at 562 per 100K and the United Kingdom (the closest NATO founding country) at 129 per 100K (Widra and Herring 2021). However, high rates of incarceration in the U.S. are a relatively recent phenomenon. As recently as 1970, America’s incarceration rate was just 97 per 100K, comparable to current rates of incarceration in countries like Sweden and Norway. It is also important to note that there is substantial heterogeneity across individual states – a feature of the decentralized criminal justice system in the United States and heterogeneous crime rates across U.S. states. In 2021, Louisiana had the highest incarceration rate of 1,094 per 100K, nearly four times as high as Massachusetts, the state with the lowest incarceration rate of 275 per 100k. Several factors contribute to the difference in incarceration rates across states, particularly crime rates and the punitiveness of criminal justice laws in the state. Indeed, Louisiana’s overall and violent crime rates (6,408 per 100K and 639 per 100K respectively) are approximately twice as high as Massachusetts’s crime rates (2,415 per 100K and 309 per 100K, respectively), despite the greater use of incapacitation. Overall, the difference in crime rates between these states explains roughly half of the difference in incarceration rates, leaving the other half explained by differences in state criminal justice policies.

RACE AND GENDER

Ultimately, despite America's high incarceration rate, the total share of the U.S. population incarcerated is still relatively small - approximately one half of one percent of the U.S. population is incarcerated at any given time. However, the lifetime experience of imprisonment, which is more relevant for policy makers, is more common than the point-in-time measure suggests and is disproportionately concentrated among historically disadvantaged communities. Shannon et al. (2017) and Finlay and Mueller-Smith 2020 estimate that between 3-4% of White men and 15% of Black men have been incarcerated by age 30. Roughly ten percent of American Indian/Alaskan Native (AIAN) and Hispanic men are incarcerated by age 30. Incarceration is largely concentrated among men with corresponding cumulative incarceration rates by age 30 for White, Black, AIAN, and Hispanic women of 0.6%, 1.9%, 1.9%, and 1%, respectively.

OFFENSE TYPES

Contrary to a popular claim that enforcement of narcotics laws are the primary driver of high incarceration rates in the U.S., the majority of inmates in state prisons – including 54% of men and 35% of women – were serving time for a violent offense. Property offenses were the lead charge among 19% and 29% of male and female inmates, respectively. Drug offenses were the lead charge for 19% of male and 29% of female inmates and a sizable share of those individuals have had prior violent convictions which contributed to the probability that they would serve a prison sentence. Therefore, while reforming drug laws would have an important effect on U.S. incarceration rates, it is far from a panacea and would not bring the United States back to the levels of incarceration from the 1970s or to the level of incarceration that we see in other industrialized countries (Pfaff 2015).

AGE PROFILES

There is a well-known age-crime profile – the so-called “age-crime curve” – that shows that individuals are more criminally active at younger ages. Crime and violence peaks among individuals in their late teens and early 20s. However, for a variety of reasons, prisoners are quite a bit older than this. The median age of current inmates has increased from the early 1990s growing from 30 years old to 36 years old by 2013 (Carson and Sabol 2016). Today, fewer than 40% of prisoners are younger than 30 years old, nearly one third are between 40-55, and 10% are over 55 years of age. The aging prison population is due to two factors: 1) individuals serving long prison sentences from the late 1980s and early 1990s are aging in prison and 2) the age of new admits is also increasing over time.

These stylized facts are coupled with major criminal justice policy changes over the past several decades in the midst of rising crime rates in the 1970s and 1980s to a modest correction in the 2000s. Current patterns in crime and incarceration rates can be explained by coming of age during the tough on crime years and acquiring lengthier criminal records that have perpetuated re-incarceration as individuals continue to be adjudicated harshly due to past criminal histories (e.g., three strikes laws and sentencing guidelines focused on criminal histories). Shen, Bushway, Sorensen and Smith (2020) document these cohort patterns and the likelihood of incarceration among the justice involved population in North Carolina. Similarly, Guler and Michaud (2018) develop a dynamic macro model that imbeds a one-time increase in punishment in the 1980s that has lasting consequences for the affected cohorts through present day. Together, these studies document and explain the persistent incarceration rate despite declines in new admits and the rising age profile of those in prison.

JAIL INCARCERATION

Thus far, our focus has been on sentences served in state prisons. This is where the vast majority of individuals who are convicted of serious crimes serve their time as the federal system remains relatively small, accounting for around 10% of the prison population in the United States (Carson 2022). However, nearly 40% of people detained in any given year in the U.S. serve their time in local jails. Among those in jails, approximately one third are serving a sentence for a less serious crime which carries a maximum sentence of 1-2 years. The remaining two thirds are unconvicted individuals who have been remanded to custody or who cannot pay their bail amount while awaiting trial (Zeng and Minton 2021).

Pre-trial detention serves two purposes: i) to ensure the safety of the community and ii) to ensure that the defendant appears in court for subsequent court hearings. Indeed, pre-trial detention mechanically ensures further crimes are not committed and that the defendant does not fail to appear in court as documented in various settings using a range of methodologies (Leslie and Pope 2017; Dobbie, Goldin, Yang 2018; Sloan, Naufal and Caspers 2023; and Albright WP). But, pre-trial detention negatively affects case (e.g., conviction and sentencing) and broader defendant (e.g., recidivism and employment) outcomes. Specifically, there is a consistent 13-14 percentage point increase in the likelihood of conviction for defendants detained pretrial (Leslie and Pope 2017; Dobbie, Goldin, and Yang 2018), which is larger for first-time defendants and appears to be driven by an increase in convictions through plea agreements suggesting defendants are in a weaker bargaining position when detained pretrial. Individuals detained pre-trial are also more likely to commit future crimes than those released pre-trial (Leslie and Pope 2017; Dobbie, Goldin, and Yang 2018), largely offsetting any increase in pre-trial crimes from releasing individuals before trial. The evidence thus suggests that reducing the use of pre-trial detention, if done tactically, represents an opportunity to

reduce the use of incarceration that need not have longer-term impacts on public safety.

A potential alternative to pre-trial detention – as well as pre-trial release – is electronic monitoring. Rivera (2023) finds that electronic monitoring reduces low-level crimes and failure to appear in court but increases bond violations relative to individuals that would have just been released under a different randomly assigned judge. Relative to detention, electronic monitoring has an increase in pre-trial crime (from a mechanical baseline of zero), but improves the defendant's case outcomes and reduces recidivism for costly crimes. Ultimately, electronic monitoring is likely a good substitute for pre-trial detention for many (albeit not all) individuals. More research is needed in the context of electronic monitoring in lieu of incarceration for those convicted, but it stands to reason that it may be a promising alternative for certain carceral sentences to limit the prison population while not as useful for those that otherwise would have been on probation after conviction.

S P I L L O V E R S T O T H E S E C O N D G E N E R A T I O N

Incarceration affects many more than just those sentenced to prison. In 2007, 50% of adult men and 62% of adult women in state prison were a parent to a minor child (Glaze and Marushak 2008). Put another way, roughly 1% of children in the U.S. have a biological parent in prison in any given year of their childhood (0-18) and just over 3% have a biological parent, caregiver, or other adult that they co-reside with in prison during any given year (Finlay, Mueller-Smith and Street 2023). Over the course of a child's entire childhood, nearly 9% of children in the U.S. have a biological parent, caregiver, or other adult in their home serve time in prison. Again, these indirect exposures are also concentrated among historically marginalized

communities with corresponding rates of 20%, 15% and 11% for Black, American Indian/Alaskan Native, Hispanic children, respectively. Perhaps unsurprisingly, exposures are strongly related with household income with 18% of children in the 20th percentile exposed a parental incarceration compared to 1.4% of children in the 80th percentile. The disproportionate exposures across race are also observed even within the same household income percentile (e.g., 15% of White children vs. 25% of Black children in the 20th percentile of household income are exposed to a parent in prison), suggesting disproportionate exposure to the criminal justice system is not merely a function of differences in household income across racial groups.

A few studies have focused on the effect of parental incarceration on children's short- and long-run outcomes. The only credibly causal research to date uses randomly assigned judges and variation in their strictness upon sentencing to estimate the causal effect of incarceration for the marginal, convicted defendant. Norris, Pecenco and Weaver (2021) is currently the only such study in the U.S. and focuses on children of defendants in the three largest cities in Ohio (Cincinnati, Cleveland, and Columbus). They find that when a parent is incarcerated – because he or she was arbitrarily assigned to a more punitive judge – their children experienced a 4.9 percentage point (40%) reduction in their likelihood of being incarcerated by age 25. These results are consistent with Baron and Gross (2022) which showed that removing a child from a tumultuous home environment for a period of time under Child Protective Services is beneficial for the child's long-run outcomes, including criminal justice involvement. Using the same judge design in other contexts, estimated effects range from being positive in Colombia (Arteaga 2021), to no effect in Norway (Bhuller et al. 2018, and a negative effect in Sweden (Dobbie et al., 2018).

How can these results, which to many observers will be counterintuitive, be explained? Children with incarcerated biological parents are more likely to have a grandparent as a primary caregiver or live with other family members, suggesting changes in home environments, either temporarily or permanently, are related to

parental incarceration (Finlay, Mueller-Smith, and Street 2023; Glaze and Marushak 2008). Observing a biological parent at the margin of incarceration being incarcerated may also serve as an information shock in which the child updates the probability of being incarcerated given they are caught for a crime. All things considered, the effect of parental incarceration is likely to be highly heterogeneous, depending on the characteristics of the incarcerated adult and many other factors. While more research is needed before we can be confident that we know whether the average effect of parental incarceration on children's outcomes, at a minimum, the available literature suggests that the answer is complicated and that, in many cases, it may have protective effects on children.

Indeed, several data points suggest that communities are a salient source of intergenerational transmission of incarceration risk. For example, children who move to counties with a high level of criminal justice involvement are more likely to experience indirect exposure by an adult in their home to the criminal justice system during childhood and more likely to be arrested by age 26 themselves (Finlay, Mueller-Smith and Street 2023). Similarly, Billings and Hoekstra (2023) find children with more crime-prone peers, as measured by having a parent incarcerated, in their neighborhood and school are more likely to be arrested as young adults by 2.6% and 6.5%, respectively. Among former offenders, Billings and Schnepel (2020) find that recently released inmates are less likely to recidivate if more of their neighborhood peers are currently incarcerated when reentering the community. Taken as a whole, while parental incarceration may not be passed down within families in a straightforward manner, the scope for incarceration to be passed down from generation to generation within disadvantaged and socially-isolated neighborhoods remains wide.

3. Recidivism, Parole and Reentry

Having addressed the scale and demography of incarceration and its impacts on the subsequent generation, we next turn to the persistence of incarceration within a given generation. Once an individual serves time in prison, to what extent do subsequent prison spells follow? What does social science tell us about efforts to disrupt cycles of incarceration that are experienced by a given person?

3.1 Recidivism in the United States

Recognizing that the scale of incarceration is disproportionately driven by a small number of people who cycle in and out of prisons and jails, we first discuss rates of recidivism (i.e., re-offending). In theory, recidivism should be simple to measure using a definition to which all can subscribe. A common definition, for example, is the share of individuals who, upon release from prison, re-offend within a given period of time. However, there is a great deal of nuance in how recidivism is measured and, depending on the definition of reoffending, the follow-up period that is covered and the sampling frame used, estimates of the recidivism rate will vary considerably – from as low as 10% to upwards of 70%. In this section, we provide an overview of recidivism in the United States and offer context for how to think about it is high or low. This discussion is detailed as it turns out that the specifics of how recidivism is measured have profound implications for thinking about the efficacy of various strategies to reduce recidivism.

First, there is the issue of how recidivism is identified. At one end of the spectrum, recidivism could be marked by a new arrest, regardless of whether the arrest is for a serious crime or a minor violation and irrespective of whether the arrest ultimately leads to a conviction. Recognizing that many arrests do not ultimately result in an adjudication of guilt, recidivism is sometimes measured as a new conviction, regardless of whether the

conviction ultimately led to a custodial sentence. The most restrictive definition of recidivism – which usually requires an arrest, a conviction and a custodial sentence – is whether or not an individual returns to custody. Even within this definition though, there is considerable variation in how the recidivism rate is measured. In most states, a considerable majority of individuals who are convicted of misdemeanor crimes and even the majority of those convicted of a felony crime will be sentenced to serve their time in jail or in the community, not in prison. Hence whether one's return to custody includes jail, or probation or to prison will lead to markedly different estimates of the recidivism rate. Then there is the issue of technical violations, violations of the terms of an individual's parole resulted in approximately one-third of all admissions to prison in the United States in 2020 (Carson 2021). Thus, a large number of individuals who return to custody do so not because they are convicted of a new crime but because they violated the terms of their release conditions (e.g., failure to report to their probation officer or failure to take or pass a drug test).

A second choice in calculating the recidivism rate is the time window over which recidivism is measured. Common choices are to measure recidivism over one-, two- or three-year windows, though some longer-term calculations have been made as well. The recidivism rate grows mechanically with the length of the window. In the United States, when recidivism is defined by a new arrest, the official recidivism rate for state prisoners released in 2012 is 37% one year after release, 62% three years after release and 71% five years after release (Durose and Antenangeli 2021). Recidivism rates are higher for males than for females (63% vs 53% at three years) and are marginally higher for Black Americans (64% at three years) than White Americans (60% at three years) or Hispanic Americans (59% at three years). Age is a far better predictor of recidivism than race. Among individuals who were 24 or younger when they were released, 72% were re-arrested within three years. Among individuals who were 40 or older at release, the three-year re-arrest rate is 52%. With respect to the conviction offense, those who were convicted of a property offense were more likely to be re-arrested than those convicted of a violent offense. The share of those released from prison who ultimately return to prison is considerably lower than the share of

those who are re-arrested. Among all released state prisoners from 34 states in the United States in 2012, 20% returned to prison within one year, 39% returned within three years and 46% returned within five years. Among those 40 or older, fewer than one-third return to prison within three years. Just 28% of those who returned to custody within five years returned because they were convicted of a new violent offense.

A final consideration – which turns out to be extraordinarily important – is how prisoners are sampled. The way that the official recidivism rate is calculated is to consider a three- or five-year cohort of individuals released from state prisons in the United States and, for each exit from prison, to identify whether that individual was ultimately re-arrested or returned to custody over a given timeframe. This is the basis for the statistics cited in the previous paragraph. Statistics such as the three-year re-arrest rate (62%) have, in turn, become cause for many on the left to argue that the correctional system – and ultimately the entire idea of punishment – has failed and for many on the right to argue that a majority of individuals who have been to prison simply cannot be “corrected” no matter what we do. However, each of these beliefs relies on a calculation that is frequently misunderstood due to the specifics of the underlying sampling. As noted by Rhodes et al (2016), among a cohort of individuals who have entered state prisons during a 3-5 year window, individuals who recidivate and return to custody will be represented multiple times in the data. Someone who has cycled in and out of prison five times – either due to the commission of a new crime or a parole violation – will be represented five times in the data while an individual who serves time in prison never to return will only be represented once. Because sampling is done at the event level, individuals who return to custody are overrepresented relative to individuals who do not return to custody.

As Rhodes et al. point out, if recidivism is measured instead as the share of individuals who have ever been to prison who return to custody – the recidivism rate would be roughly 50% lower than the most commonly cited statistic. Rhodes et al. (2016) replicates the BJS the

recidivism rates for state prisoners majority of whom appear to desist from serious crime under the prevailing policy regime. Instead, it is important to think about promoting deterrence and strengthening individuals and communities more broadly, while targeting resources towards the highest-risk individuals regardless of whether they are returning home after a spell in prison.

3.2. Reducing Recidivism

How can recidivism – and therefore incarceration – be reduced? Here we consider two broad approaches, neither of which is mutually exclusive. First, we consider parole supervision in which individuals are released earlier than the end date of their sentence and are instead supervised in the community. Next, we review the literature on “prisoner reentry programs” which offer a variety of services, including holistic wraparound services, to individuals nearing the end of an incarceration spell or who have recently re-joined the community.

3.2.1 Parole

Parole is a common feature of U.S. correctional systems. Nationally, over 70% of U.S. prisoners are released to parole rather than serving the entirety of their custodial sentence in prison. On the one hand, parole offers a means of reducing the use of incarceration by reducing the length of time that an average individual will serve in prison. On the other hand, parole systems tend to lead to a mechanical increase in recidivism via parole violations, technical violations of parole conditions that can send an individual back to prison even if a new crime is not committed. Parole systems may thus tend to increase re-incarceration rates, if for purely mechanical reasons. Overall, in the United States, one-third of new admissions to prison are due to parole violations (Carson 2020).

What effect do parole systems have on return rates to custody? The research uniformly finds that parole increases the probability of being sent back to prison due to technical violations (Harding, Siegel and Morenoff 2017; Lee forthcoming; Banan WP; LaForest WP; Arbour and Marchand WP). Being under supervision also increases the probability that a new arrest will lead to a prison sentence (Hickert, Bushway, Nieuwbeerta and Dirkzwager 2021). With respect to new offenses, the evidence is more mixed. Banan (WP) studies a large policy change in North Carolina that required individuals released from prison to serve 9 months on parole using a regression discontinuity in time design. Releasees quasi-randomly subject to parole were less likely to commit both property and violent crimes during their period of supervision, which did not continue once supervision ended. LaForest (WP) finds an increase in two-year recidivism for those quasi-randomly paroled earlier in Pennsylvania using variation in the leniency of individuals assigned to make parole decisions. Again using random assignment of examiners – but in Quebec Canada – Arbour and Marchand (WP) finds a reduction in new sentences for those paroled. Part of the parole requirements in the Quebec study and other places in the United States, is that the individual must live in transitional housing, which may affect both the likelihood of technical violations and new offenses depending on context. In the United States, Lee (forthcoming) studies being assigned to halfway houses relative standard parole in Iowa using variation in assignment proclivities of case managers. He finds that being assigned to a halfway house decreases the time until reincarceration relative to parole, with an increase in new violent offenses and parole violations despite a decrease in drug and public order crimes.

In sum, parole and halfway houses seem to increase the likelihood of reincarceration due to technical violations, which should be weighed against the cost of incarceration and the mostly mixed results on the effects on new offenses. An additional finding of note is that when Georgia eliminated parole due to good behavior, inmates engaged in less rehabilitative programming, an outcome which ultimately led to higher recidivism rates (Kuziemko 2013). Thus, while parole can create some mechanical upward pressure on

re-incarceration rates, the absence of incentives created by parole can also have unintended consequences.

3.3 Reentry programs

Given the concentration of serious crime among a small number of individuals and the corresponding concentration of its cost among a small share of disadvantaged and socially isolated communities, for many years policymakers have focused resources on the population of individuals who are incarcerated or who have recently returned from prison to the community. Today, almost every state prison system offers some type of programming to at least some share of inmates and recently released prisoners, ranging from vocational training and educational offerings to substance abuse treatment, mental health services, and fatherhood skills. These programs are highly variable with respect to their scope, their underlying theory of change, their intensity and their quality. Case managers also assist returning inmates with immediate concerns such as finding housing, securing necessary documents and connecting individuals with available social services upon their return to the community. This multi-faceted approach, while sometimes chaotic and haphazard, recognizes that individuals who are leaving prison often face a lifetime of social and economic hurdles including little formal education and limited work histories and are often returning to communities and family situations that do not have the available resources to support successful reentry. These difficulties are compounded by the inevitable destruction of human capital, a byproduct of a criminal record and the disruption of one's work history while serving time in prison. Wraparound services seek to provide holistic support to individuals, inoculating them against the conditions that led them down the path of criminality in the first place.

There are many reasons to be optimistic that wraparound services – and their constituent components – can be effective in reducing the likelihood that an individual commits a new crime and returns to prison. By providing individuals with skills and connecting them with a job or other financial supports, the relative wage that can be earned in the illegal sector becomes lower and the lure of continuing a criminal career may therefore diminish. Likewise, the provision of therapeutic interventions for mental health conditions, assistance in dealing with trauma, cognitive behavioral therapy and treatment for substance use disorders can address some of the underlying drivers of instability and violent behavior that land individuals back in prison. But does this approach ultimately work?

While most of the programs delivered to returning prisoners have not been formally evaluated, there have been recent randomized evaluations of various types of services. Overall the recent literature is fairly thin and so strong conclusions cannot be drawn. But we offer the following summary of the evidence. Transitional jobs and employment services have had mixed success, with a few evaluations (Cook et al 2015; Valentine and Redcross 2015) finding short-term declines in re-arrest and one of three studies finding a reduction in re-convictions. With respect to psychological services and counseling, there is reasonably strong evidence in favor of cognitive behavioral therapy (Pearson et al 2016; Barnes, Hyatt and Sherman 2017; Heller et al 2017), a finding which persists among a more general population of high-risk youth as well (Pollack et al 2016; Heller et al 2018). There is also some support for the efficacy of multi-systemic therapy (Gilsson 2010; Butler et al 2011; Sawyer and Borduin 2011) for youth offenders though some evaluations have not found beneficial effects (de Vries et al 2018; Fonagy et al 2018). Therapeutic communities, an intervention which combines counseling with housing support and drug treatment was effective in one of three recent randomized evaluations with limited evidence of effectiveness in the other two (Sacks et al 2012; Sacks, McKendrick and Hamilton 2012; Welsh, Zajac and Bucklen 2014).

Given that returning prisoners have many needs, most interventions combine intensive case management with various types of “wraparound” services. Again, many of these programs have not been formally evaluated but some of the most rigorous evaluations fail to detect meaningful changes in recidivism or have even had iatrogenic effects. Randomized evaluations of prisoner reentry programs date back to at least the 1970s but, in the recent literature, several large-scale experiments stand out as being the most informative on the prospects of providing wraparound services to returning prisoners. Grommon, Davidson and Bynum (2013) studied an intervention that provided returning prisoners with assistance finding employment and housing, with “life skills” and outpatient substance abuse treatment. Individuals who received the wraparound services were no less likely to re-offend than individuals who were not randomly assigned to receive the services.

Other reentry programs emphasize a transitional job – a temporary job available as soon as the individual leaves prison – as a hook to obtain other services. Here the evidence is mixed. Redcross et al (2009) evaluated services offered by the Center for Employment Opportunities, a NYC-based non-profit, using a randomized control trial (N=977). The program offered participants a transitional job for a period of typically eight weeks for four days per week at minimum wage, alongside wraparound services including job coaching, a job developer to help move to a more permanent job, and fatherhood training. The evaluation found that individuals who received the job and the services were 27% less likely to be convicted and 11% less likely to return to prison within the first two years of release. Cook, Kang, Braga, Ludwig and O’Brien (2015) evaluated a program in Milwaukee that provided both wraparound services – including educational services, substance use treatment and cognitive behavioral therapy – and a transitional job to high-risk individuals leaving prison. Individuals who received the services did not re-offend at a significantly different rate than those assigned to the control group. Wiegand and Sussell (2016) evaluated the Reintegration of Ex-Offenders (RExO) program, a joint effort of the U.S. Departments of Labor and Justice. The program funded the provision of wraparound

services, including employment services and mentoring – and active case management – across twenty-four U.S. sites. Across all of the sites, individuals who received the services were 21% more likely to have been convicted a new crime than individuals who were randomly assigned to the control group. Similarly, D’Amico and Kim (2018) evaluated the Second Chance Act’s Adult Demonstration Program across seven different U.S. sites. Similar to RExO, services offered varied by site based on the capacity and expertise of local community organizations but services included employment assistance, substance abuse treatment and cognitive behavioral therapy. The evaluation found no significant differences in return to custody between individuals who received the intervention and those who did not. Most recently, Doleac, Temple, Pritchard and Roberts (2020) re-analyzed and extended several prior RCTs of the provision of wraparound services to returning prisoners. That evaluation found little evidence that a drug treatment program in Illinois or the provision of wraparound services in Minnesota reduced recidivism.

Why haven’t these programs found greater and more consistent success? Scholars have proposed several possible reasons. First, the quality of service provision tends to be uneven. The difference between high-quality job training and low-quality job training with respect to encouraging desistance from crime may be large enough to be definitive. Null findings in the literature could either reflect the possibility that the underlying theory of change is incorrect or merely that the quality of the services provided was not sufficient to generate meaningful change. A related concern raised by Doleac (2022) is that the provision of so many different kinds of treatment in wraparound approaches may water down the effectiveness of any single approach, and it is not possible to discern between components of the programming that were effective and those that were not effective. Second, by the time individuals end up in prison, they often have lengthy criminal histories and a lifetime of financial and social barriers. The types of services provided may simply be delivered at too low a dosage to make a sufficiently important difference in an individual’s life. Similarly, individuals leaving prison are often returning to the same impoverished and

socially-isolated communities and many of the same peers that existed when they were initially sent to prison. Even a particularly well- delivered suite of services may not be sufficient to overcome the powerful influence of community conditions and peer effects (Morenoff and Harding 2014). Third, treating some of the drivers of criminal behavior is difficult, whether the person is formerly incarcerated or not. The vast majority of people seeking treatment for addiction will end up relapsing, often multiple times. Similarly, serious mental health conditions – and even more pedestrian mental health conditions – often require a lifetime of continuous and highly-individualized care. Medical care is expensive, and despite the existence of public supports and charitable organizations that fund this type of care, there is simply not enough care to support the needs of this population.

A final consideration is a technical one. Because treatment provision is expensive and randomized experiments are difficult to keep in the field for long periods of time, the number of individuals studied in a given research initiative is usually fairly small. Thus, research often does not have sufficient statistical power to detect modest changes in recidivism that may have accrued as a result of a program. In other words, a meaningful change in recidivism could have transpired but would not be statistically significant, a feature of the research terrain which leaves the door open to the possibility that reentry programs might have achieved at least a small degree of success (Doleac, Temple, Pritchard and Roberts 2020). Taken together, the findings suggest that while wraparound services have not appeared to have reduced recidivism to a large degree, there is promising evidence in favor of cognitive behavioral and multi-systemic therapy- based approaches.

4. Diversion

Parole supervision and reentry programs aim to reduce re-offending among individuals who have already served time in prison. Another approach is to engage with individuals after they have committed a crime but before they experience prison. For convenience, we refer to all such efforts, which are numerous and varied, as “diversion.”

A primary example of a diversion-based intervention is specialized courts, such as drug and mental health courts, where a defendant can avoid a conviction if he or she completes some form of court-supervised programming, typically targeted toward those who are accused of drug possession or who have a substance abuse disorder and considered to be non-violent offenders. The theory of change is that specialty courts provide a legal mechanism to coerce individuals into treatment and that this might be effective in reducing criminal justice involvement for people for whom substance abuse or untreated mental health problems are the underlying reason for their criminal activity. A meta analysis of 181 quasi-experimental and experimental studies of 154 unique programs finds a systematic drop in recidivism for adult drug court, similar drops but less robust evidence of a drop in recidivism for adult DWI court, and small drops in recidivism for juvenile drug court (Mitchell, Wilson, Eggers, and MacKenzie 2012). A recent paper by Arora and Benschik (WP) studies the rollout of a drug diversion program in Chicago from 2018 through 2020 using a staggered difference-in-differences design. Individuals arrested for narcotics and meeting the eligibility criteria were evaluated by a mental health professional in the police station, released without a charge, and referred to a substance abuse treatment provider rather than being processed through the jail system as they otherwise would have. They find that the program was effective at connecting individuals with diagnosed drug disorders to substance abuse treatment programs and reduced subsequent arrests, suggesting improvements through both a reduced reach of the criminal justice system and better public safety.

Overall, specialized courts to deal with substance abuse and mental health issues are promising given the criminal justice system is often the first point of contact with this population. However, we stress that relatively few individuals are eligible for specialty courts due to binding requirements that individuals have no history of violent offenses. In addition, specialty courts require a lot of resources and there are natural capacity constraints within the court system. As a result, even among individuals who are eligible for a specialty court, few individuals receive the intervention (Bhati, Roman and Chalfin 2008). On the one hand, this suggests that taking specialty courts to scale is likely to offer substantial benefits. On the other hand, given that these courts are engaging with relatively low-risk offenders – people who are not likely to end up in prison – we are skeptical that specialty courts can have a large impact on imprisonment, unless eligibility criteria are changed to become more inclusive.

Another type of diversion program utilizes the principles of restorative justice, with the goal of leveraging feelings of remorse and accountability to change behavior by connecting offenders with their victims. In lieu of adjudication and punishment, offenders have the opportunity to meet their victim and learn how the victim was affected by their behavior. Restorative justice programs have proliferated around the globe during the last thirty years but there have been relatively few high-quality evaluations of the approach. Randomized experiments carried out in Indiana by McGarrell (2001) and McGarrell and Hipple (2007) find that young offenders randomly assigned to restorative justice conferencing rather than business-as-usual case processing were initially less likely to re-offend. However, the effects dissipated in the long run indicating that the program did not appear to permanently shift the participants to a different life path (Jeong et al 2012). These findings are largely echoed by quasi-experimental literature that tends to find that individuals who are subject to restorative justice conferencing are less likely to re-offend than other defendants (Rodriguez 2007) as well as by an RCT in Arizona which suggests large reductions in recidivism (Mills, Barocas and Ariel 2013). More recently, Raphael, Shem-Tov and Skogg (2021) study Make-

t-Right, a restorative justice program aimed at juvenile offenders facing felony charges in San Francisco, using a randomized controlled trial (N=143). They find that participants in the program are 19 percentage points (44%) less likely to be arrested within 6 months, which persists for four years. Outside of the United States, a systematic review by Sherman et al (2015) found that restorative justice programs tended to reduce recidivism.

While more high-quality evidence is needed, restorative justice is an approach that policymakers may wish to consider investing in. At the same time, we caution that while restorative justice is a promising approach to reduce re-offending for some individuals, it is unlikely to have large at-scale effects as only a small subset of cases will be eligible for restorative justice programming. Not only does the defendant have to agree to participate but victims and prosecutors do as well. There is, as such, probably a natural ceiling on the number of cases that can be resolved through restorative justice conferencing.

Outside of speciality courts and restorative justice programs, several states have suspended or deferred prosecution/conviction/sentencing for misdemeanor and/or felony defendants more generally (see Table A.1 in Mueller-Smith and Schnepel 2021). The specifics vary by state, but the general approach is that defendants enter a probationary period under the supervision of a probation officer and the defendant avoids the conviction and/or sentencing upon successfully completing the terms of the agreement. Mueller-Smith and Schnepel (2021) study a felony diversion policy in Texas using a discrete change in the likelihood of being offered diversion in a Regression Discontinuity in Time framework. They find that individuals who were “as-good-as-randomly” allocated to diversion were less likely to re-offend and more likely to be employed in the months and years after their crime. These effects likely operate through escaping having a felony record and not through differences in incarceration since individuals not diverted were not more likely to receive prison time for their sentence. The benefits of felony diversion on reduced future convictions are also found in San Francisco using variation in judge leniency (Augustine, Lacoé, Skog and Raphael

2022). A less formal version of diversion is through variation in criminal justice actors, particularly prosecutors. Prosecutors wield immense discretion over which cases are pursued and terms of the conviction and sentence as ultimately close to 95% of the court's caseload through plea bargaining. The term "progressive prosecutors" has gained attention throughout the U.S. as prosecutors have uniformly chosen not to pursue certain charges. Agan, Harvey and Doleac (2022) use the random assignment of defendants to prosecuting attorneys, who have discretion over which cases to pursue and vary in leniency, and find diversion from criminal prosecution reduces future criminal charges among first-time defendants. Among defendants with more criminal history, the benefits of diversion are far less clear but there are no clear increases in offending arising from non-prosecution.

Across the range of diversion-type programs, effects tend to be strongest for first-time offenders. In fact, the effects are completely driven by diversion of first-time offenders for both felony and misdemeanor diversion (Mueller-Smith and Schenepel 2021; Agan, Harvey, and Doleac 2022). Since the restorative justice program evaluated in San Francisco was targeted at juvenile offenders, many of the effects observed in that program are also likely through first-time or early offenders (Rafael, Shem-Tov and Skogg forthcoming). Thus, it seems most effective to intervene for offenders early on and attempt to alter their criminal trajectory. For more experienced offenders, the approach carries greater risks and there is little evidence to support its benefits.

5. Crime Prevention

Incarceration is the result of crime and the policy decision to punish its perpetrators. We could reduce the use of incarceration mechanically by imprisoning fewer people who commit crimes as discussed in Section 4. But in a stable policy regime, the preferred way to reduce incarceration is to prevent crimes from occurring in the first place. There are two main ways that policymakers allocate resources to prevent crime and promote public safety. The first is law enforcement – primarily through spending on police and prosecutors. The second is through investments in communities, including social programs and place-based interventions to make neighborhoods less hospitable to crime. In this section, we review the evidence on each of these inputs, with a focus on the effect of public investments in law enforcement and social programs on crime prevention and the use of incarceration.

5.1 Law Enforcement

A large scholarly literature considers the responsiveness of crime to the presence and availability of police and has found that police resources have a modest but, in general, important impact on crime. With respect to police manpower, prevailing estimates indicate that a 10% increase in police staffing, on average, reduces violent crimes by between 4% and 10% and property crimes by between 2% and 5% (Marvell & Moody, 1996; Levitt, 2002; Evans & Owens, 2007; Chalfin & McCrary, 2018; Weisburst, 2019; Mello 2019; Chalfin et al 2022). A related literature finds that crime tends to decline when police spend more time in crime “hot spots” (Sherman 1995; Braga et al 2019), that crimes tend to fall when police presence increases due to re-deployments due to national security threats (Di Tella and Schargrotsky 2004; Draca et al 2011) or in the aftermath of a police surge (MacDonald, Fagan and Gellar 2016; Cheng and Long 2018). Crimes likewise rise when police officers are called away from their assigned beats to respond to a serious traffic

accident (Weisburd 2021). While there is a reasonably strong consensus that investments in law enforcement can promote public safety, what effects have these investments had on the number of arrests that are made and ultimately on the use of incarceration?

As attention has turned to the social harms of “mass incarceration,” it has been suggested that spending on both prisons and police has been excessive (Tonry, 2011). The theory is that even if the police affect crime partially through deterrence, given that police do make arrests—approximately 13 per officer per year according to the Bureau of Justice Statistics—they must also incapacitate offenders and therefore contribute directly to the staggering scale of incarceration growth in the United States. However, whether and to what extent greater investments in police lead to greater incarceration rates is an empirical question, one that depends on the combination of deterrence and incapacitation effects through which police reduce crime. For instance, it is possible for police to have the attractive quality of reducing both crime and incarceration if a sufficiently large share of the impact of police is through deterrence; if police can prevent crimes from occurring in the first place then there will be fewer offenders to arrest and punish leading to less incarceration. On the other hand, if police affect crime mostly by making arrests leading to incapacitation, then investments in law enforcement is an unpromising vehicle for reducing the scale of incarceration in the United States.

What effect do investments in policing have on arrests and ultimately incarceration? An understanding is beginning to emerge. Leveraging variation in federal block grants which have enabled cities to put more police officers on the street since the mid-1990s, Owens (2013) and Chalfin et al (2022) have found that when the size of a city’s police force increases, index crime arrests – arrests for serious crimes like robbery, felony assaults and burglary – either do not change (Owens 2013) or decline (Chalfin et al 2022). There is no research, to our knowledge, which suggests that increases in the size of a city’s police force lead to more arrests for the types of serious crimes that are most likely to lead to a prison

spell. Interestingly, the decline in index crime arrests arising from greater investments in policing reported by Chalfin et al. (2022) has been found to be four to six times larger for Black Americans than White Americans, which suggests that investments in policing are unlikely to have contributed to the massive and racially disparate growth in the scale of incarceration in the United States during the last four decades. The findings from the studies on crime rates are bolstered by research by Kaplan and Chalfin (2019) who directly studied the effect of increases in police manpower on admissions to state prisons. Although those estimates are not sufficiently precise to completely rule out a positive relationship between investments in law enforcement and the growth of a state's prison population, the available data indicate that the effect of police spending on new prison commitments is likely to be negative and, critically, is highly unlikely to be large and positive.

On the other hand, prison sentences are not the only way in which investments in law enforcement can widen the net of the criminal justice system. Approximately 80% of the arrests that US police officers make are not for serious felonies like “index crimes.” Instead, most arrests are for lower-level “quality-of-life” offenses (e.g., drug use), crimes that often do not have an identified victim but that lead to a criminal record and sometimes a jail sentence. Indeed, recent research by Chalfin et al. (2022) suggests that each additional police officer hired makes between 7 and 22 additional arrests for such crimes. With respect to arrests for liquor law violations and drug possession, two leading arrest charges for which police usually have tremendous discretion, that research finds particularly large and racially disparate impacts, with arrests three times larger among Black civilians. This result is perhaps intuitive since police may spend more time surveilling disadvantaged neighborhoods and is supported by recent evidence from Jabri (2021) who finds that when police deployments change, increases in traffic arrests follow.

A particularly salient setting to consider the effects of greater law enforcement presence – especially on the eventual incarceration of youth – is schools. Research shows that when

police officers are deployed to schools, they make more arrests and youth are less likely to graduate from high school (Owens 2017; Weisburst 2019). When youth are suspended from school, they are more likely to end up arrested and incarcerated (Fabelo et al 2011; Cuellar and Markowitz 2015). In other words, once youth find their education disrupted by criminal justice contact, it is difficult to get back on track. The effects are not small. Research by Bacher-Hicks, Billings and Deming (2019) finds that students assigned to a school with one standard deviation higher suspension rate are 15-20 percent more likely to end up arrested and incarcerated as an adult.

Taken together, the evidence suggests that when cities invest in a larger police force, arrests for serious crimes like robbery and felony assault – and thus imprisonment – may, in fact, decline. At the same time, research suggests that larger police forces widen the net of the criminal justice system, exposing larger numbers of people – especially Black Americans – to arrests and jail time for more minor offenses. This can eventually lead to more imprisonment as criminal records accumulate and individuals move up the sentencing grid. This issue is especially salient in schools where an incarceration spell, even one that is brief, can move a young person towards a new and unproductive equilibrium. In sum, investments in policing can reduce the scale of incarceration when police focus their efforts on incapacitating the relatively small number of people who are the drivers of the majority of the social costs of crime and focus their efforts broadly on deterrence. Strategies such as focused deterrence (Braga, Turchan, Papachristos, and Hureau 2019), gang takedowns (Chalfin, LaForest and Kaplan 2021) and directed patrol at crime hot spots (Braga et al 2019) – with a focus on crime prevention rather than on the volume of arrests – are promising ways to experience the benefits of policing, while minimizing its impact on – or possibly even reducing – incarceration.

5.2 Social Programs in the Community

Another way in which policymakers can reduce the use of incarceration through crime prevention is to deliver services to at-risk individuals in the community that strengthens their human capital and reduces the likelihood that they will become involved in criminal activity in the first place. These efforts take on a number of different forms including direct income supports or in-kind benefits provided by government agencies as well as innovative programs conceived of and delivered by community non-profit organizations. We provide an overview of each of these, in turn.

A particularly prominent way in which services are provided is through government programs that provide either universal or means-tested benefits to residents of the United States, sometimes with restrictions for those with criminal justice records. Large government entitlement programs like Medicaid provide physical and mental health services and programs like SNAP and SSI provide income assistance to qualifying individuals. A second source of service provision consists of services that are either funded by municipal government or by private charitable foundations – sometimes it is a mix of both. Some programs like summer jobs for youth are typically administered by city officials. Other social service programs are conceived of and administered by private service providers, sometimes with support from public coffers but also typically relying on philanthropic support. These organizations offer a wide range of services including educational interventions, social-emotional programming, job training and other types of wraparound services. While many services are available to individuals of all ages, an outsize share of services are targeted towards youth or young adults. Overall, the evidence suggests that many types of social service supports do help to reduce offending, including sometimes violent offending. While no single support is likely to be a panacea, research by Sharkey, Torrats-Espinosa, and Takyar (2014) notes that the investments in community non-profit organizations has had an at-scale effect on crime and has a similar overall effect on public

safety as investments in police previously discussed. Of course, the devil is in the details as some approaches seem more effective than others.

Overall, there are two main types of social programs: those that provide individuals with income supports or a job and those that provide a range of other types of services, including mental health treatment and therapeutic interventions that are designed to address social rather than economic barriers. Sometimes programs offer a mix of these two inputs, offering employment or income as a hook to attract individuals into services that are thought to be of value.

J O B S A N D M O N E T A R Y A S S I S T A N C E

Reflecting the historically popular idea that crime is the result of material deprivation, research on the relationship between wages, labor market conditions and crime is among the oldest and most enduring topics in social science scholarship on public safety (Wright, 1893; Macilwee, 2011; Emsley, 2013). Criminologists have long theorized that a lack of acceptable employment opportunities or a properly remunerated job may lead some individuals to turn to crime, as unemployment may lead to psychological strain (Agnew, 1992; Agnew et al., 1996), changes in daily routines (Cohen and Felson, 1979; Cook, 2010; Andresen, 2012), or a weakening of social ties (Aaltonen et al., 2013; Sampson and Laub, 1990). In turn, among members of the public, a lack of employment opportunities is frequently cited as a root cause behind high rates of crime in disadvantaged communities.

Taken as a whole, these literatures suggest that improving economic opportunities is likely to reduce crime, particularly income-related crime. Given that property crimes represent approximately one quarter of new admissions to state prisons in the United

States, there is scope for economic interventions to have an effect on the use of imprisonment. However, we are skeptical that such interventions are likely to have a large at-scale impact for a few reasons. First, the responsiveness of property offending to wages and economic conditions, while present, is modest. Even a major recession is estimated to increase property crimes by perhaps 7-8%. Second, violent crimes, which are the biggest driver of new prison admissions in the U.S., do not seem to be very responsive to the business cycle. Finally, there is the issue of scalability. While job training programs could be expanded, genuine job creation is difficult. Moreover, while economy-wide expansions and contractions have modest effects on crime, tailored job programs for returning prisoners were found to have mixed results as discussed above.

With that caveat in mind, there is evidence that investments in the economic well-being of individuals can reduce serious offending and incarceration, especially when it is paired with other types of interventions. First, randomized control trials of providing jobs to particular individuals, especially youth, may have a greater effect on the types of crimes that are mostly likely to lead to a prison spell. Summer jobs provided to youth in both Chicago and Philadelphia lead to reductions in arrests and incarceration (Heller 2016; Heller forthcoming). A related program called the Rapid Employment and Development Initiative (READI) focuses on violent offenders recently released from prison, a high-risk population, offering employment paired with cognitive behavioral therapy (CBT). They find no evidence overall in their index of violence, but significant declines in shooting and homicide arrests (Bhatt, Heller, Kapustin, Bertrand & Blattman forthcoming). While determining the relative importance of employment versus CBT is difficult to ascertain, the role of employment as an incentive for participating in CBT, a crime reduction technique discussed further below, seems to be promising.

Access to income supports through public programs is also related to criminal activity. Deshpande and Mueller-Smith (2022) show that loss of Supplemental Security Income (SSI) increases the likelihood of criminal activity and subsequent incarceration,

specifically income-generating criminal activity (e.g., theft, burglary, etc) in a Regression Discontinuity framework. They study a change in the likelihood of moving from child to adult SSI upon the reevaluation at age 18 following the 1996 Welfare Reform Act; this made it less likely for children turning 18 to move onto adult SSI forgoing nearly \$10,000 in benefits per year. They find that the cost savings from SSI removal (reduced government spending on SSI and Medicaid benefits along with tax revenue from increased formal employment and earnings) is offset by the increased cost from criminal activity (police and court costs, incarceration costs, and victimization costs). Similarly, Palmer, Phillips and Sullivan (2018) find that offering emergency financial assistance for those at risk of losing their housing are less likely to be arrested for violent crime and crimes related to homelessness over two years, surprising increase in property crime driven by shoplifting. Yang (2017a) studies the lifetime ban for felony drug offenders from public assistance under the 1996 public welfare reform and subsequent states opting out of the ban. She finds that eligibility for public assistance reduces one-year recidivism by 10%. Similarly, Tuttle (2019) studies the same ban among Florida drug offenders, specifically drug traffickers, and finds that lack of access increases recidivism particularly among income-generating crime.

Importantly, the timing of access to the benefits or eligibility restrictions also affects criminal activity. Carr and Packham (2019) show that households near the end of their SNAP benefit cycle are more likely to commit property-related crime, which seems to be driven by offense by women and offenses in grocery stores. Relatedly, Abdelrahman and Schnepel (WP) find that crime increases in Canada when benefit receipt is quasi-randomly further from the first of the month when large household expenditures are due. Together, these studies point to increases in crime when households are financially stressed and that public assistance has a role in reducing such criminal activity. Given that people with criminal records are sometimes not eligible for public benefits programs, the evidence suggests that recidivism might be reduced by expanding benefits to these populations.

NON-MONETARY INVESTMENT

A number of social programs targeted toward at-risk children have documented long-run reductions in criminal justice involvement. Educational investments are one type of in-kind transfer. For instance, children in high-poverty counties exposed to the rollout of Head Start in the 1960s and 1970s and Smart Start in the 1980s and 1990s in North Carolina are over 20% less likely to receive a criminal conviction by the age 35 and 24, respectively, with no measurable effect for children in low-income counties (Anders, Barr and Smith 2023). Moreover, the children of mothers that were exposed to Head Start across the U.S. are also less likely to have any reported arrests, convictions or probation by age 18 in the NLSY, highlighting the intergenerational spillovers of social investments and reductions in criminal justice exposure (Barr and Gibbs 2022). Similarly, children exposed to the rollout of the Food Stamp Program in the 1960s and 1970s were also less likely to be convicted by the age 24 (Barr and Smith 2023). The effects are partially driven by violent and felony convictions, which are particularly costly types of crime and which are most likely to result in a prison spell. Even though these results estimate an intent to treat and thus are likely lower-bounds of the programs' effects, the discounted later life improvements still outweigh the programs' direct costs under conservative assumptions (see Table 5 of Anders, Barr and Smith 2023 and Table 7 of Barr and Smith 2023).

Outside of early childhood, investments in education also show promise in reducing crime and therefore probably also incarceration. Using data from the National Longitudinal Survey of Youth and leveraging variation in the passage of compulsory schooling laws across the United States, Lochner and Moretti estimate that a high school degree reduces offending considerably. Other U.S. research that supports this finding includes Merlo and Wolpin (2009) and Cullen, Jacob and Levitt (2006) who study a shift in school quality. This research is supported by a related stream of

research that studies the effects of increased investment in education more generally and mostly finds that better funding for education leads to reduced crime among exposed cohorts (Baron, Hyman and Vasquez 2022). Critically, research finds that the crime-reducing effects of education are transmitted to the next generation, both in the U.S. (Chalfin and Deza 2019) and Turkey (Erten and Kaskin 2020). Thus investments in today's children figure to inoculate them against crime involvement as well as their future children.

Another intervention which has been the subject of academic inquiry is the availability of health coverage including treatment for mental health conditions. Jacome (WP) shows an increase in the likelihood of incarceration among young men who lose Medicaid access upon turning 18 using a matched difference-in-differences in South Carolina. These effects are driven by individuals who were previously receiving mental health care and suggest that extending Medicaid among low-income young men is a cost effective crime reduction policy. Additional research on county level access to substance abuse and mental health centers have also led to a small reduction in local crime (Bondurant, Lindo and Swenson 2018; Deza, Maclean and Solomon 2022). Finally, a recent behavioral RCT called "Becoming a Man" by a non-profit in Chicago focused on decision making among disadvantaged youth and found that the provision of a particularly culturally-sensitive form of CBT led to a large a decrease in arrests for violent crime among youth in the study (Heller, Shah, Guryan, Ludwig, Mullainathan and Pollack 2016); this is in line with the READI study which provides CBT along with employment discussed above (Bhatt, Heller, Kapustin, Bertrand & Blattman forthcoming).

Given that 56% (64%) of state (jail) inmates have a mental health condition and that 43% (55%) of state (jail) inmates demonstrate signs of mania, health supports may also be effective at reducing recidivism among those already criminally active. The publicly provided state Medicaid expansion is one approach to delivering health

insurance that reduces recidivism (Aslim, Mungan, Navarro and Yu 2021). Another approach which was recently evaluated using a randomized control trial is connecting recently released inmates, in this case from Johnson County, KS, to mental health professionals (Batistich, Evans and Philips WP). The researchers found an eight percentage point decline in recidivism after 60 days by comparing those eligible for treatment (i.e., Johnson County residents) to those released and non-residents of the county in a difference-in-differences design. Between the high rates of mental health issues within the incarcerated population and the findings of the above studies, preemptively tackling health issues among disadvantaged populations may reduce the use of the criminal justice system and incarceration, which is often a provider of last resort for this population.

Another form of public assistance meant to alleviate financial constraints relates to affordable housing, which may also affect criminal activity. On one hand, income supports may ease financially motivated crime. On the other, the location of the housing may increase criminal opportunities potentially through peers or targets. Pollakowki et al. (2022) studied children in public housing and voucher-assisted housing and found a reduction in incarceration by comparing across siblings within a household. On the other hand, among adults, Carr and Koppa (2020) study a housing lottery and order within the waitlists in Houston, Texas and find no effect of voucher receipt on the likelihood of arrest; however, they find an increase in arrests for violent crime within the sample of individuals that eventually use the voucher.

Taken together, the evidence suggests that social programs ranging from early education, nutrition, disability and mental health insurance, and housing assistance to changes to systems of thinking, are promising avenues for reducing criminal engagement and incarceration. In our view, the evidence for reducing incarceration is strongest for the broad range of investments (e.g., HeadStart, youth summer jobs, cognitive behavioral therapy) targeted toward children. Services that intervene and set children on an improved lifetime trajectory often more than pay for themselves.

Among those with criminal justice involvement already, there is evidence that access to income supports help reduce reincarceration (particularly through income-generating offenses). Yet, the evidence for transitional jobs for returning offenders is less robust leaving a bit of a puzzle. Ultimately, programs that address mental health needs and systems of thinking seem to be robust and are most effective at reducing costly violent offenses.

5.3 Improvements to the Built Environment

Another way in which policymakers can reduce the use of incarceration through crime prevention is to deliver services to at-risk individuals in the community that strengthens their human capital and reduces the likelihood that they will become involved in criminal activity in the first place. These efforts take on a number of different forms including direct income supports or in-kind benefits provided by government agencies as well as innovative programs conceived of and delivered by community non-profit organizations. We provide an overview of each of these, in turn.

Next we turn to interventions which are intended to support the community as a whole, rather than specific individuals who participate in a program. Much of this research considers interventions that affect a neighborhood's physical environment and include neighborhood greening, remediating blighted properties and installing better street lighting. This idea – that communal spaces can be designed to empower ordinary citizens to protect themselves – has inspired a generation of urban planners and public safety advocates to coin the term “crime prevention through environmental design,” usually referred to using the acronym CPTED. Architects might appeal to CPTED principles to design a building that is characterized by more defensible spaces. City planners might appeal to CPTED principles in considering changes to a city's landscape such as shifts in zoning laws or the placement

of roadways or the design of a neighborhood park. Similarly, public safety advocates sometimes appeal to CPTED principles in advocating for the remediation of disorderly conditions such as abandoned buildings, vacant lots and poor nighttime lighting.

These sorts of interventions are appealing from the perspective of reducing the use of incarceration because, when they are effective, they tend to generate crime reductions through deterrence and managerial changes without the need for additional arrests. In other words, if you can target harden public spaces to make them less hospitable for criminal activity and that activity is not displaced elsewhere, then crime as well as arrests and imprisonment will decline. When these approaches are effective they thus have particularly attractive properties.

Can making changes to the built environment deter crime and increase public safety? The available research now includes high-quality evidence — including evidence from randomized controlled trials — in favor of a host of CPTED-inspired interventions such as increasing the availability of trees and green space (Branas et al 2011), restoring vacant lots (South et al 2018; Branas et al 2018; MacDonald et al 2021), enhancing the effectiveness of street lighting (Chalfin et al 2022; Chalfin, Kaplan and LaForest 2022; Welsh and Farrington 2022) and improving networks of visual surveillance (Piza, Welsh and Farrington 2019). Importantly, when arrests have been studied, research has found that place-based crime control strategies either result in fewer or no change in arrests. While the research does not tell us specifically whose arrests – and therefore potential incarceration spells – are abated and so the effects are less tangible than those arising from social programs, these effects are no less real. What's more is that while social programs are often difficult to scale because delivering services well is an art, scaling improvements to the built environment tends to require less expertise. Scalability is therefore mostly a function of cost and timeframe.

Typically interventions to the built environment require a fixed investment up front, associated with installing new features or making repairs. Some interventions such as LED street lighting have fairly low variable costs thereafter – for example, the cost of fuel and standard maintenance. Other interventions such as greening vacant lots in a community require constant upkeep, a responsibility that might fall either on a nonprofit organization or municipal government. While a small number of evaluations have considered longer-term effects – up to three years – of interventions to the built environment, finding enduring impacts, most evaluations have considered only short follow-up periods. An outstanding question is whether the impacts of these interventions will endure for a sufficient amount of time to disrupt cycles of intergenerational incarceration.

A related approach is to make more financial investments in disadvantaged communities. Such investments include creating tax incentives for development and easing access to credit, among other approaches. Recent research by Mitre-Becerril (2023) finds that tax incentives to spur development has not had an effect on public safety in U.S. cities, in part because development does not lead to large changes in the economic well-being of communities, at least in the short run. On the other hand, when banks make credit more available, home ownership rises and crime falls, without a rise in arrests. The implication is that homeownership empowers community residents to make investments in public safety that deters crime and therefore requires less use of incarceration.

6. Discussion

This essay reviews strategies for maintaining public safety while minimizing the use of imprisonment. While advocates of scaled-down incarceration have generally focused their efforts on addressing the “root causes” of criminal behavior, the available evidence suggests that the use of imprisonment can also be diminished through a combination of smart sentencing reform and diversion along with tactical social supports, interventions to the built environment and more focused and purposeful policing. Indeed state imprisonment rates declined by approximately 20% from 1995 until 2019, just prior to the beginning of the COVID-19 pandemic, an outcome which is closely tied to the large decline in crime, particularly violent crimes, during the same time period. Notably this is not a period in which the so-called root causes of crime and violence – poverty, social isolation, inequality and systemic racism – were successfully addressed.

This is a critically important insight as the data suggests that progress on disrupting cycles of intergenerational incarceration can be made even without making large gains on the root causes of inequality and violence, goals which, while critically important, are extraordinarily difficult to achieve and which may require a generational shift in public priorities. Likewise, while the scale of incarceration could certainly be reduced through a landmark sentencing reform, given that nearly 60% of prisoners are incarcerated for a violent offense and many others have substantial criminal histories, meaningful sentencing reform would require significant – and potentially elusive – political willpower on both sides of the aisle. We further note that since sentencing is a state priority, a meaningful shift in national incarceration rates would require all – or at least most – states to be on the same page in reducing the use of incarceration. It is hopefully reassuring then that other more tactical measures appear promising.

Which investments work best? It is difficult to draw firm conclusions because the number of

high-quality evaluations is finite and there is an extraordinary degree of variation in the quality of available programs and contexts (both over time and geography), whether they have or have not been formally evaluated. However, the available evidence offers several broad lessons. First, a broad range of interventions targeted toward children in disadvantaged communities offer clear benefits and often pay for themselves when it comes to crime reduction and the other benefits that tend to accrue over their lifetime. Second, with respect to adults, while interventions that increase economic opportunities and resources have been shown to have a measurable impact, particularly at reducing income generating crimes, securing a job for those recently released from prison is not a magic bullet. Given that violence tends to be relatively insensitive to economic fluctuations, the scope for income-based supports to dramatically reduce offending may be narrower than some theories of offending suggest. On the other hand, interventions which change how people think – getting people to rely less on more automatic “System I” thinking and addressing mental health issues – appear to be more effective at consistently reducing costly violent offenses for both youth and for older individuals, including those who are already involved in the criminal justice system. Third, the evidence suggests that it is productive to divert first-time offenders and others with minimal criminal history from the criminal justice system. While there is a natural concern that diversion will erode the deterrence value of criminal sanctions, first-time offenders who have been diverted – either through a formal program or informally via “non-prosecution” – tend to be less likely to be re-arrested in the future than those who are subject to traditional prosecution. Critically though, this does not mean that diversion will be effective or advisable for those with longer criminal histories. Given the high concentration of offending among a small class of highly productive offenders, the key to reducing the use of incarceration while maintaining public safety is to find ways to incapacitate the small number of individuals who drive an outsize share of the crimes while finding productive ways to engage others who are not (or are not yet) as productive.

Fourth, the evidence suggests that law enforcement can play an important role in reducing

the use of incarceration. When police are visible and engage in high-value activities that deter crime or focus their arrest powers more intensively on violent and/or high-volume offenders, they have the ability to reduce crime through deterrence and focused incapacitation without increasing the footprint of the justice system. Imprisonment grows when crime rises and when people do not have access to an effective system of justice. In this vein, ineffective law enforcement is itself a root cause of mass incarceration and its transmission from generation to generation. At the same time, when police are directed to make large numbers of arrests for lower-level crimes and prosecutors are directed to seek jail time in these cases, there is wide scope to end up with an increased use of incarceration. In short, when it comes to mass incarceration, law enforcement can certainly be part of the problem but, given its importance in providing public safety, it can also be a big part of the solution. The key is to allocate police and prosecutorial resources in a way that maximizes deterrence and uses incapacitation strategically and judiciously.

Finally, the scope for sentencing reform to play a role should not be overlooked. Research by Raphael and Lofstrom (2017) draws on California's experience in reducing incarceration rates. In the aftermath of a series of legal challenges regarding prison overcrowding, California shifted the cost of incarceration to counties which resulted in a reduction in imprisonment and less severe punishments for a host of convicted defendants. The result – little more than a small increase in property offending – suggests that states have some latitude to reduce incarceration rates without compromising public safety. Of course, the key to doing so is being smart about who to treat in the community. Here, it is especially important to consider the age-crime curve. Individuals in their 30s and 40s are more likely to have aged out of offending than younger individuals.

Given these broad findings, which interventions should policymakers invest in? While those which are evidence-based is probably a good place to start, we suggest an additional consideration which may be just as important – scalability. What interventions, if effective,

can be scaled up to improve public safety and reduce reliance on criminal sanctions for an entire community or an entire city? Some interventions may be highly effective but may be too costly or too difficult to apply beyond a highly targeted population. Other interventions may be relatively inexpensive but may be hampered by the inevitable short supply of charismatic leaders or highly-skilled, culturally aware and empathetic service providers. In other words, how easy will it be to take an intervention run by a non-profit organization which inoculates 100 kids against the social forces that lead to criminal justice involvement and scale up that intervention so that it touches 10,000 kids? While social programs have proven challenging to scale, some evidence suggests that cognitive behavioral therapy might be more scalable than meets the eye.

Similarly, policymakers might consider that while interventions to the built environment are generally not inexpensive – remediating abandoned properties and installing street lights isn't cheap – such interventions do not generally require a huge amount of special expertise to scale. The technology to remediate an abandoned building or to enhance the quality of ambient lighting is well understood and can be implemented by any general contractor. On the other hand, the technology needed to engage effectively with someone who is dealing with a lifetime of barriers is far less well-understood and not as easily implemented.

Finally, we note that some levers that affect crime and the incarcerated population already operate at scale. For example, changes in the criminal code or prosecutorial practices typically will affect all individuals within the system. However, specialized approaches such as drug court or diversion will still require costs to scale as there is still going to be a need for case review, probation officers, and other capacities for services. Social programs already delivered by state and federal governments, like SNAP and SSI, are also easier to scale delivery but still cost financial resources.

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