Strategies to productively reincorporate the formerly-incarcerated into communities: A review of the literature*

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Two-thirds of those released from prison in the United States will be re-arrested within three years, creating an incarceration cycle that is detrimental to individuals, families, and communities. There is tremendous public interest in ending this cycle, and public policies can help or hinder the reintegration of those released from jail and prison. This review summarizes the rigorous evidence on the effectiveness of programs that aim to improve the reintegration and rehabilitation of the formerly-incarcerated. While there is a need for much more research on this topic, the existing evidence provides some useful guidance for decision-makers. The importance of evaluating existing and new strategies is also discussed.

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1 Executive Summary

Policy-makers and practitioners across the United States are searching for ways to successfully reincorporate the formerly-incarcerated into their communities. Investing resources in effective programs that reduce recidivism could produce big returns by reducing crime and incarceration rates. Incarceration costs roughly \$75-200 per inmate per day¹; directing some of that money toward rehabilitation instead is likely to be highly cost-effective. In addition, improving rehabilitation and reintegration would help the families of the formerly-incarcerated, and benefit local economies by increasing the community's human capital. This is unfortunately easier said than done. The key question is which programs have the benefits we're seeking.

This review summarizes the existing evidence on how to improve reentry outcomes. It is intended as a guide for policy-makers and practitioners, as well as a lay-of-the-land for researchers. I review what we currently know, but also try to make clear how much we still don't know. I focus on studies that (1) were published in 2010 or later, (2) were based on study populations in the U.S. or countries with a similar criminal justice context, and (3) have a plausible control group that allows a clean measure of the causal effect of a particular program or policy. This means I focus on studies that use randomized controlled trials (RCTs) or natural experiments that divide people into similar treatment and control groups. The outcomes of interest are those that proxy for successful reintegration into communities: recidivism, employment, and educational attainment.²

The existing studies span a variety of topics that signal the array of challenges faced by the criminal-justice-involved population, and the consequent diversity of programs designed

¹See Henrichson, Rinaldi and Delaney, 2015 and Mai and Subramanian, 2017 for cost estimates.

²For the purpose of quantitative research, administrative data on recidivism provide the most valuable measure of successful reintegration. Data on formal-sector employment may not capture the work experience of this population, as a large share of the formerly-incarcerated may work 'off the books.' Formal sector employment is clearly preferable for a variety of reasons (including eligibility for benefits such as the Earned Income Tax Credit, Unemployment Insurance, and Social Security), but is probably not a reliable indicator of an ability to support oneself through non-criminal activity. More research on the prevalence of informal employment for this population would be helpful, as would research on the value of alternative measures of self-sufficiency, such as consumption data instead of data on earnings.

to help this group. These topics include: employment, housing, mental health treatment, substance abuse treatment, multi-faceted interventions that address many needs at once, diversion from incarceration, changing intensity of community supervision, and expanding DNA databases.

Employment

Many programs focus on increasing employment for people with criminal records, with the hope that access to a steady job will prevent reoffending. This topic has been studied more than others, and the research results are mixed.

Transitional jobs programs provide temporary, subsidized jobs and soft-skills training to those trying to transition into the private sector workforce. multiple rigorous studies show that transitional jobs programs are ineffective at increasing post-program employment, and have little to no effect on recidivism. This contrasts with evidence that stronger low-wage labor markets at the time of release from prison – and high labor demand in well-paying sectors like construction, in particular – reduce recidivism. It could be that transitional jobs are not a sufficient substitute for "good" private sector employment, perhaps because of low pay or negative peer effects from other program participants. It could also be that stronger low-skilled labor markets increase employment and incomes not for released offenders themselves, but for friends and family who are then in a better position to support them. Regardless, it appears that traditional transitional jobs programs are a dead end as a reentry program, unless we value work for its own sake and are willing to pay for it.

Individual Placement and Support (IPS) programs aim to increase employment for those with mental illness. Two studies consider the effect of IPS on people with mental illness and criminal records, but only one measures effects on recidivism and the statistical power is too limited to detect (or rule out) meaningful effects.

Ban the Box policies seek to increase access to employment by prohibiting employers from asking about criminal records until late in the hiring process. Research shows that Ban the Box policies are ineffective at increasing employment for people with criminal records, and have the unintended consequence of reducing employment for young black men without criminal records (because employers assume that applicants from this group are more likely to have a record when they cannot ask directly). The net effect is a reduction in employment for young, low-skilled black men – the opposite of what proponents of this policy hoped to achieve.

Employer education initiatives aim to increase employers' willingness to consider applicants with criminal records, by explaining the potential benefits of hiring people with criminal records and teaching hiring managers how to interpret those records. A lab experiment found no impact of an education module on hiring managers' stated willingness to hire applicants with criminal records, but programs may have different effects in the real world.

Court-issued rehabilitation certificates can be presented to employers as a signal of recipients' rehabilitation. One study found that court-issued certificates increased access to employment for individuals with felony convictions. This could be because they provide valuable information to employers about work-readiness, or because employers perceive the court-issued certificates as protection against negligent hiring lawsuits. In either case, this strategy is promising and worth further study. The effect on recidivism is currently unknown.

This body of evidence suggests that the public emphasis on increasing employment for people with criminal records may be misguided. A job might be nice to have, but not necessary or sufficient to reduce recidivism. Focusing on other other needs (such as housing or substance abuse treatment) may do more to promote successful reintegration, and ultimately make it easier for individuals to find and keep stable employment.

Housing

There is currently very little evidence on the effects of housing-focused strategies. One study showed that court-issued rehabilitation certificates increased landlords' willingness to rent to people with felony convictions, though effects on actual housing rates and recidivism

are unknown. Another study showed that emergency financial assistance to those who need short-term help paying rent or utility bills reduced re-arrest rates for those with at least one previous arrest. More research on the effects of housing-related programs, particularly for individuals who have been recently released from prison, would be valuable.

Mental health treatment

A large share of people who are arrested and incarcerated suffer from mental illness, and many more are hindered by emotional trauma and poor decision-making strategies. Therapy and counseling could have a meaningful impact on the successful reintegration of these individuals. Programs focused on mental health include cognitive behavioral therapy (CBT) and multisystemic therapy (MST). A growing body of evidence supports CBT as a cost-effective intervention, though the evidence on MST is more mixed and may be context-dependent. In both cases, it is unclear how much effectiveness will fall if programs are scaled up to serve more people: if they require highly-trained psychologists to conduct the sessions, the scalability will be limited.

Substance abuse treatment

A large share of jail and prison inmates have histories of substance abuse, which suggests that helping this population manage addictions may reduce criminal activity. Unfortunately there is currently limited evidence on the effectiveness of programs with this goal. The most-studied interventions in this category are modeled after the HOPE program, applying swift, certain, and fair sanctions to individuals who are court-ordered to remain sober. Early evaluations of this program were promising, but more recent replications revealed smaller or no impacts. Additional evaluation will be required to determine when and for whom HOPE-style programs can be effective.

Drug courts involve a team-based approach to serving offenders who suffer from addiction.

One evaluation found significant reductions in recidivism, but it is unclear if the program

was cost-effective.

Therapeutic Communities are a residential program focused on mentorship and self-help; one evaluation found that this program can be effective in a reentry context, though others found no benefits relative to treatment-as-usual during incarceration.

Medication-assisted treatment for addictions seems promising, given clinical evidence that medications can help patients abstain from drug use, but there is essentially no evidence on their effectiveness when it comes to reducing recidivism or increasing employment or education.

Meanwhile, a few studies considering financial incentives to enroll in and attend treatment, as well as intensive case management to facilitate engagement in treatment, find no significant effect on recidivism. In one case, those receiving the intervention were actually more likely to be rearrested than the control group, on average; this emphasizes the importance of rigorous evaluations of such strategies.

Everything at once

Given the array of challenges faced by people who cycle through the criminal justice system, a popular approach is to try to address many needs at once. Two evaluations of highly-respected reentry programs providing wrap-around services found little to no effect on subsequent recidivism. More recently, two large-scale evaluations of federal programs funding wrap-around services in communities across the country both found *increases* in recidivism for the treatment groups. In a similar spirit, focused deterrence programs pair broad community support and offers of assistance with a zero-tolerance approach to reoffending. The one RCT of this type of program finds no significant effect on recidivism. Reentry courts are similar to drug courts in that they provide a team-based approach to managing offenders' cases and integrating their support services. A rigorous evaluation of a reentry court in Harlem found no significant effect on recidivism. Together, these studies suggest that these multi-faceted, labor-intensive (and thus expensive) interventions may be trying

to do too much and therefore do not do anything well. Since this is a popular approach in cities and counties across the country, leaders should be skeptical about the effectiveness of their current programs.

Diversion from incarceration

Diverting low-risk offenders to community supervision instead of incarceration appears to be highly effective. Electronic monitoring is used as an alternative to short incarceration spells in several countries, and in those contexts has reduced recidivism rates and increased economic well-being and educational attainment. Court deferrals – which allow low-risk, non-violent felony defendants to avoid a conviction if they successfully complete probation – reduce recidivism rates and increase employment. And an innovative diversion program for non-violent juvenile offenders that provides group mentoring and instruction in virtue theory was shown to reduce recidivism relative to standard diversion to community service. This last study suggests that while diversion alone may be an improvement over short-term incarceration, it is probably also possible for us to improve our diversion programs to better support at-risk youth.

Changing intensity of community supervision

Many people coming out of jail or prison may benefit from government or community support, but many others might be better off if we left them alone. (This is especially likely if the programs they would be referred to are not effective.) A diverse set of high-quality studies consider the effects of reducing the intensity of community supervision. All found that reducing intensity of supervision (for example, requiring fewer meetings or check-ins with probation officers) has no impact on recidivism rates, and that it actually reduces recidivism for low-risk boys (age 15 or younger). That is, for less money, and less hassle to those who are court-supervised, we could achieve the same and even better public safety outcomes. This approach is worth exploring in a variety of contexts, and appears to be

effective for high-risk as well as low-risk offenders.

Expanding DNA databases

Finally, another policy that has great potential to reduce recidivism and incarceration rates is expanding DNA databases. Two studies show that those charged or convicted of felonies are dramatically less likely to reoffend when they are added to a government DNA database, due to the higher likelihood that they would get caught. Deterring recidivism in this way is extremely cost-effective, and reveals that many offenders do not need additional supports to stay out of trouble.

Discussion

Figure 1 summarizes the current evidence. Even where existing research points in a positive or negative direction, keep in mind that in most cases the evidence is limited. It is possible that the same programs would have different effects with different types of offenders, or that variations on the programs could be more (or less) effective. Additional experimentation and evaluation is necessary to paint a clearer picture of which approaches are cost-effective and for whom. An important lesson from the current literature is that many well-meaning, highly-regarded programs are proven ineffective or actively detrimental when they are evaluated. We should acknowledge that achieving the successful reintegration and rehabilitation of the most at-risk members of our communities is difficult, and that most strategies we try will fail. A willingness to try new things, and rigorously test whether they are working, will be the key to finding effective solutions in this policy space. If initial failures are inevitable, then a commitment to failing fast – so that we can regroup and try again – is our best bet to achieving success in the near-term.

Figure 1: Strategies to improve prisoner reentry outcomes

	Court-ordered rehabilitation certificates
	Cognitive behavioral therapy
Good bets	Diversion from short incarceration spells
	Reducing intensity of community supervision
	Expanding DNA databases
	Individual Placement and Support
	Employer education regarding criminal records
	Emergency financial assistance for housing
Mixed or	Multisystemic therapy
too little	HOPE
evidence	Medication-assisted treatment for addiction
	Therapeutic communities
	Incentivizing/facilitating engagement in substance abuse treatment
	Focused deterrence
	Transitional jobs
Bad bets	Ban the Box
	Wrap-around services

2 Introduction

The purpose of this review is to summarize existing rigorous evidence on how to improve prisoner reentry outcomes. I focus on studies published in 2010 or later, based on populations in the U.S. or places with similar criminal justice systems. This date restriction is partly to make a comprehensive review feasible, and partly because changing societal and criminal justice contexts over time make earlier studies less relevant to the present day. Studies must also consider impacts on those already involved in the criminal justice system – that is, this review does not include studies focused on prevention of initial criminal justice contact, though that is also a worthy policy goal.

To be included, studies must have a control group that plausibly addresses selection issues. In many programs, participants volunteer or are selected based on motivation and readiness for change – important characteristics that are unobservable to the researcher and therefore impossible to control for in observational studies that lack a natural experiment. Studies based on matched comparison groups are therefore excluded from this review.³ Also excluded are well-identified studies with flawed analyses that re-introduce selection bias.⁴

Outcome measures of interest include recidivism, employment, and education. Ideally,

³A typical example of such studies involves a program of interest where participants volunteered or were carefully selected by case managers. The researchers then use a group of people not in the program to create a control group. They find people who are close matches based on observable characteristics – same race, age, criminal history, etc. – and use them as a counterfactual for what would have happened to program participants absent the program. Of course, there is usually a reason that one person is in the program and the other isn't. There is likely a difference in motivation, or interpersonal skills, or some other factor that would contribute to that person's success after the program ends. Since matching methods cannot account for such differences – which are unobservable to the researcher – they cannot plausibly measure the effectiveness of the program.

⁴For instance, it is common in RCTs for many people assigned to the treatment group not to participate in or complete the program of interest. This is fine if the initial random assignment is used to estimate the effect of the program, but some studies do not do this. Comparing treatment and control groups as assigned will produce an intent-to-treat (ITT) estimate, which tells us the effect of the program as implemented (this is the policy-relevant estimate unless there is reason to believe that future implementations could increase participation rates). Using treatment assignment as an instrumental variable (IV) for actual participation will produce a treatment-on-the-treated (TOT) estimate, which tells us the effect of the program on participants. In several studies, authors directly compared program participants/completers with the control group. Since individuals decide whether to participate in or complete the program, this re-introduces the selection bias that the initial randomization intended to remove, and so the results are not useful for estimating a causal effect of the program.

outcomes are based on administrative data, not self-reports. This is partly to ensure accuracy of the outcome measures, and also to reduce (selective) attrition that results from being unable to contact participants at the end of the follow-up period. (Using administrative data makes such follow-up contact unnecessary.) Studies typically use arrest, conviction, or incarceration to indicate criminal history and recidivism. This variation across studies is not ideal, as these records pose different challenges to individuals and mark different thresholds for recidivism. Unfortunately, this variation is inevitable given current state and local data insfrastructures.⁵ Throughout this review, I will make clear how study samples and recidivism are defined in particular studies.

A primary goal of this review was to identify strategies that could productively reincorporate formerly-incarcerated black and Latino youth into their communities. Given their disproportionate representation in the U.S. criminal justice system, young men of color are the most likely to benefit from programs that improve prisoner reentry outcomes. However, it would be useful to know if some programs are more successful at reducing racial disparities than others. With few exceptions, the existing evidence base is unfortunately too thin to determine programs' relative impacts across subgroups of interest. At this point, there is more evidence pointing to differential effects by age than by race. Throughout the review, I discuss the composition of study samples, so that readers can get a sense of the contexts in which particular effects were found. Many programs are targeted at offenders of particular risk-levels; note that most young men will be rated "high-risk" based on standard risk assessment instruments.

Programs and policies of interest are grouped into the following (sometimes overlapping) categories: employment, housing, mental health treatment, substance abuse treatment, everything at once, diversion from incarceration, changing intensity of community supervision,

⁵Data on arrest are typically maintained by police departments, conviction data are typically maintained by courts, and incarceration data are typically maintained by Departments of Correction. These agencies operate at different geographic levels (city vs. county vs. state), and in most cases it is extremely difficult to link datasets across agencies. The other datasets used in a given study (and which agency maintains those data) tend to influence which measure of criminal justice involvement researchers rely on.

and expanding DNA databases. While it is possible that I have missed some studies, readers should assume that – as of this writing – any strategies not discussed below have not been rigorously evaluated.

3 Employment

Economic theory suggests that employment and criminal behavior are substitutes: if someone cannot find well-paying, legal employment, they may resort to illegal activity to make ends meet. Similarly, employment may provide beneficial structure to one's day, and access to peers who are positive influences. If someone cannot find gainful employment upon release from prison, it may be especially difficult to build a stable life that is free of illegal activity. This hypothesized link between unemployment and criminal behavior has led many to think that increasing access to jobs is a key to reducing recidivism.

There is some evidence that gainful employment reduces recidivism. Yang (2017) and Schnepel (2018) show that individuals are less likely to reoffend if they happen to be released at a time when the local low-skilled labor market is particularly strong. Many interventions are designed to harness the power of employment to reduce recidivism, in ways that don't depend on improving the entire labor market.

3.1 Transitional jobs

Research evidence shows that private employers are reluctant to hire people with criminal records (Pager, 2003; Agan and Starr, 2018), perhaps because this group lacks crucial soft skills that are associated with work-readiness. Transitional job programs provide temporary, subsidized employment that is designed to transition hard-to-employ individuals (including people with criminal records) into private sector employment. These programs typically provide 6 months of full-time work at a non-profit organization, with an emphasis on improving soft skills such as reliability and interpersonal skills. Even if the programs do not actually improve participants' skills, successful completion of the program could provide a

⁶On the other hand, more disposable income could increase drug or alcohol consumption, which could in turn increase criminal activity.

positive signal to employers (that is, program completion could serve a valuable screening function). A number of large RCTs have measured the effects of transitional jobs programs on subsequent employment and recidivism.

Valentine and Redcross (2015) describe the results of two of these RCTs. The first is the Transitional Jobs Reentry Demonstration (TJRD), which took place in midwestern cities. The second is the Center for Employment Opportunities (CEO) evaluation, which took place in New York City. The study populations consisted primarily of black and Hispanic men. Both studies found large increases in employment for the treatment group during the 6-month program period, but employment rates rapidly dropped to the level of the control group as soon as the transitional job was no longer available. In other words, the programs do not appear to have facilitated a successful transition into private sector employment. Results on recidivism were somewhat mixed: TJRD had no significant effect on recidivism, though CEO significantly reduced misdemeanor convictions by 31%. Neither produced significant reductions in more serious criminal behavior or total days incarcerated.

Cook et al. (2015) evaluated the effects of a transitional jobs program paired with wraparound services that provided a wide variety of supports to participants. They used an RCT
to measure the causal impact of this program relative to existing assistance. The program
aimed to increase employment for recently-released offenders in Milwaukee. Similar to the
TJRD and CEO evaluations, this program produced a short-term increase in employment
for the treatment group, relative to the control group. However, the treatment group's
employment rate fell as soon as the program ended. Individuals in the treatment group were
significantly less likely to be arrested after release, but this effect was relatively small (65%
vs. 73% after 12 months), and there was no significant effect on the likelihood of being
re-incarcerated.⁷

⁷Farabee, Zhang and Wright (2014) describe the results of an RCT of another respected employment-focused reentry program targeted at individuals who had been released from jail or prison in the previous 180 days. While this was not a transitional jobs program, it is related in that it provided a variety of services to help individuals find employment in the private sector – including job readiness training, vocational training, a computer lab, and job placement services. Participants randomized to the control group received a list of community resources and a free meal. The study found no significant effects of the reentry program on

How should we reconcile the disappointing findings of these RCTs with previous findings that a better low-skilled labor market reduces recidivism? A key takeaway of the earlier studies is that access to good jobs – not just any jobs – reduces recidivism. That is, only jobs in industries that pay well, such as construction, seem to be effective. It may be that transitional jobs pay too little to prevent an individual's return to criminal activity. It may also be that working alongside other recently-released offenders has negative peer effects that getting a private sector job avoids. And finally, it could be that better labor markets reduce recidivism by making the *friends and family* of recently-released individuals better off. That is, those with criminal records might not be getting jobs themselves, but their networks might be better able to support them when the local economy is thriving.

Given the lackluster effects of transitional jobs programs, there is interest in whether the traditional model could be adjusted to make such programs more successful. Redcross, Barden and Bloom (2016) describe a variety of ongoing RCTs that alter the traditional model in various ways: for instance, adding more non-employment support for participants, or placing participants directly with private employers rather than in a temporary job at a non-profit organization. Long-term results of those evaluations have not yet been released, but hopefully they will shed more light on the link between employment and recidivism.

3.2 Individual Placement and Support

A large share of individuals in jail or prison have a history of mental illness, so programs targeted at this group may be helpful. Individual Placement and Support (IPS) is a model of supported employment that aims to increase employment rates for people with severe mental illness. Two studies have considered whether IPS can be effective for people with both mental illness and a history of arrest or incarceration.

Bond et al. (2015) discusses an RCT comparing IPS with a less-intensive jobs club approach in the Chicago area, and measured effects on employment and self-reported recidiemployment, recidivism, or housing stability.

 $^{^8}$ Similarly, Agan and Makowsky (2018) find that being released when the EITC is more generous or when the minimum wage is higher – up to 9.50/hour – reduces recidivism.

vism. Those randomized to IPS had higher employment rates during the study period: 31% of IPS participants vs. 7% of jobs club participants obtained competitive employment within one year. Long-term effects on employment were not measured. There were no significant effects on recidivism (arrests, convictions, incarceration) or hospitalization, though the sample was small (a total of 84 participants, about half of whom were hospitalized during the follow-up period).

Poremski, Rabouin and Latimer (2017) evaluate the effect of IPS among people recently housed within a Housing First program in Montreal. The population therefore had mental illness and had been recently homeless; about two-thirds of the 90 participants also had criminal records. Those assigned to the control group had access to other community-based services. Those assigned to IPS were significantly more likely to obtain employment. Effects on recidivism were not measured.

Far more evidence is needed before we can draw conclusions about the effectiveness of IPS as a reentry strategy. Linking participants with administrative data to measure recidivism would be particularly valuable.

3.3 Ban the Box

There are likely many people with criminal records who are work-ready but who are screened out at the application stage. Ban the Box (BTB) is a popular policy aimed at increasing employment for people with criminal records. The policies prevent employers from asking about job applicants' criminal records until late in the hiring process. The hope is that if more people with records get their foot in the door, they'll be able to signal their work-readiness during a job interview, and some will be hired even after their criminal record is revealed at the end of the process.

The potential problem with BTB is that if employers don't want to hire people with criminal records, and they're no longer allowed to ask if an applicant has a record, then they might try to guess. If this happens, then they are likely to use other observable information (e.g., race, education level, gender) to infer the likelihood that someone has a criminal record,

and statistically discriminate against applicants from groups that contain more people with criminal records.

Two studies have considered these unintended consequences of BTB, finding that BTB does increase discrimination against young, low-skilled black men. Agan and Starr (2018) conducted a field experiment before and after BTB went into effect in New York City and New Jersey, submitting thousand of applications from fake job applicants. They randomized whether each applicant had a non-violent felony conviction or no record, and whether they had a stereotypically-black or -white name (to signal race). Before BTB, those with criminal records were called back at lower rates than those without records, but there was a very small racial gap in callback rates. After BTB, black applicants were called back at significantly lower rates than white applicants. The post-BTB callback rate for black applicants was an average of the pre-BTB rates for those with and without records, while the post-BTB callback rate for white applicants was slightly higher than the pre-BTB rate for white applicants without records. Since the researchers could only observe callback rates, they could not measure effects on actual employment; some people with records who got a callback might not get a job after a criminal background check is run.

Doleac and Hansen (2016) use the phased rollout of BTB across the U.S. to measure effects of the policy on employment rates for young, low-skilled black and Hispanic men. They found that BTB reduced employment for young, low-skilled black men by 5% and for young, low-skilled Hispanic men by 3%. This implies that whatever gains were made by men with criminal records in these groups were outweighed by discrimination against men without records in these groups.

Two more recent studies consider the effects of BTB specifically on people with criminal records. Both link administrative data on criminal histories with employment records, and compare employment trends for people with criminal records to those of a plausible control group. Jackson and Zhao (2017) consider the case of Massachusetts, comparing people with records at the time BTB was implemented with similar people who don't *yet* have criminal

records. They find that BTB reduced employment for people with criminal records in the state, though it is possible that those who offend later are more work-ready in some way they cannot account for. Rose (2017) considers the effect of BTB in Seattle, comparing people with criminal records in that city with people with criminal records in other parts of Washington state – a clean natural experiment. He shows that trends for the groups are very similar before BTB, and there is no change after BTB goes into effect. In other words, BTB had no impact on employment or earnings for people with criminal records in Seattle.

All told, the best evidence on BTB shows that the policy does not help people with criminal records find jobs, and that it reduces employment for young, low-skilled black men without records, who are no longer able to signal their clean record on a job application. Figuring out why employers are reluctant to hire people with criminal records, then finding ways to address their concerns, is likely to be a more effective strategy to improving outcomes for this group without unintentionally hurting disadvantaged groups without records. Doleac (2016) and Hunt et al. (2018) provide guidance on this front.

3.4 Employer education

It is possible that some employers are misinterpreting criminal records or overreacting to previous records. It appears that employers do distinguish between new and old records, and records for misdemeanors and felonies (Leasure and Martin, 2017), so it is unclear to what extent this is a problem. Nonetheless, many believe that educating employers about how to read a criminal record and their legal responsibilities in hiring could be a useful strategy to increase hiring of people with criminal records. There is no rigorous evidence on the effectiveness of such an approach in the real world, but one study based on lab experiments considers the potential benefits of employer education in this context. Batastini et al. (2017) recruited participants with hiring responsibilities in their current job, who then read vignettes describing job applicants. Some were also randomly assigned an educational component to read before the applicant vignette; this included information about the potential benefits of hiring people with criminal records. They found that this educational component had no

impact on participants' stated willingness to consider hiring people with criminal records.

It is possible that a different educational component would be more effective, but at this point there is no rigorous evidence supporting this approach.

3.5 Rehabilitation certificates

In some jurisdictions, individuals with criminal records can apply for a court-issued certificate based on evidence of their rehabilitation. If a judge is convinced, then a certificate is granted; recipients can then provide the certificate to potential employers or landlords. There are two reasons these certificates could improve outcomes for individuals with criminal records: (1) they provide additional information about someone's likelihood of being a good employee or tenant, in contexts where such information is limited; and (2) when issued by courts, these certificates could provide protection from legal liability. For instance, if someone accuses an employer of negligent hiring because of an employee's criminal record, the employer can point to the rehabilitation certificate as evidence that they had no reason to expect bad behavior. In this way, they may be effective at shifting risk from employers and landlords to courts.

Two recent audit studies consider the effects of rehabilitation certificates in Ohio.

Leasure and Stevens Andersen (2016) submit job applications from fake applicants to entry-level jobs, randomizing whether the applicant has a one-year-old felony conviction, a one-year-old felony conviction and a rehabilitation certificate, or no conviction at all. They then observed which applications received a positive response (a "callback"). As has been found previously, those with a conviction were at a disadvantage. However, those with a felony conviction and a rehabilitation certificate were just as likely to receive a callback as those with no record. Leasure and Martin (2017) discuss a similar experiment that focused on housing applications instead of job applications. Again they found that a rehabilitation certificate dramatically increased an applicant's likelihood of a positive response, this time from 36% to 68%.

⁹The housing study consisted of inquiries to landlords from individuals posing as potential applicants, asking if they would consider renting to them given their record. The implied counterfactual is therefore a

While these are only two studies in a single state, they provide promising evidence that rehabilitation certificates may mitigate the negative effects of a criminal record. In many jurisdictions, such certificates are very difficult to obtain, which may make them more credible signals but clearly limits the number of people they can help. It remains to be seen how much these programs could be expanded (that is, how much courts could lower their standards for deeming someone rehabilitated), without eliminating their value to employers and landlords. It is also unclear whether the certificates' value stems primarily from their informational value or from their liability protection. If it's the former, then certificates from entities other than courts (e.g., nonprofits or training programs) could be just as effective; if liability protection is the key, then the certificates may need to come from a court of law.¹⁰

4 Housing

Many people with criminal records struggle to access stable housing, and this could make it more difficult to reintegrate successfully after release from jail or prison. A variety of programs aim to directly address the housing needs of disadvantaged groups, including those with criminal records. Unfortunately there is currently very little evidence on the effectiveness of such interventions.

As discussed in Section 3.5 above, Leasure and Martin (2017) show that rehabilitation certificates increase landlords' stated willingness to rent to people with a felony conviction. This may be because the certificates address liability concerns, or because landlords infer that those with certificates will be more successful at finding and keeping a job (and thus better able to pay their rent on time).

Palmer, Phillips and Sullivan (2018) is the first study to measure the causal impact of direct housing assistance on recidivism. Chicago's Homelessness Prevention Call Center

^{100\%} positive-response rate for those without criminal records.

¹⁰This distinction is also relevant for determining the likely effects of easing the process of sealing criminal records. A sealed record can't be used as the basis for a lawsuit, so more liberal record-sealing policies may be effective if liability is employers' primary concern. However, if employers consider a criminal record a signal of work-readiness, then making sealing records easier could have unintended consequences similar to those of Ban the Box.

(HPCC) provides emergency financial assistance to individuals and families who have experienced an economic shock and need short-term funding to pay their rent or utility bills. However, funding is frequently unavailable, and it is unpredictable when this is the case. This sets up a natural experiment where a person who calls on one day gets funding, but an otherwise-identical person who calls the next day does not. The authors compare outcomes for those who call on days when funding is available with those who call on days when funding is unavailable, to measure the impact of emergency housing assistance on subsequent arrests. The study does not specifically target people with criminal records, but about a third of callers have a prior arrest. For those with at least one arrest during the five years before they called the HPCC, emergency housing assistance reduces the likelihood of a subsequent arrest (during the year after the call) by a statistically significant 6.1 percentage points (36% of the control group mean). About a third of that estimated effect is due to a reduction in violent crime arrests; that result is not statistically significant, but it is suggestive that this program prevents serious crimes as well as more minor offenses.

5 Mental health treatment

A large share of people incarcerated in jail or prison have a history of mental illness. Data from the 2011-12 National Inmate Survey indicate that 26% of jail inmates and 14% of prison inmates exhibit signs of serious psychological distress (Bronson and Berzofksky, 2017). A full 44% of jail inmates and 37% of prison inmates have a history of mental health problems. For context, the rate of serious psychological distress among those with no criminal justice involvement is 4%.

As discussed in Section 3.2, ISP is an employment-focused intervention targeted at the specific needs of individuals with mental health problems. A variety of other interventions provide therapy or counseling to address various challenges faced by people with criminal records – from formally-diagnosed mental illness and emotional trauma to poor interpersonal skills and unproductive decision-making.

5.1 Cognitive behavioral therapy

Cognitive behavioral therapy (CBT) is a form of psychotherapy that helps patients identify negative or inaccurate thinking so that they can respond to challenges in a more effective way.

Bahr, Cherrington and Erickson (2016) conducted an RCT with juvenile offenders in Utah to evaluate a program called RealVictory. The program is designed to reduce recidivism among juvenile and adult offenders. It consists of six 90-minute CBT sessions and twice-aday coaching calls (via a cell phone that the program provided) to aid in goal setting. The control group received standard probation services, including counseling and drug treatment if needed. One year later, there was no significant difference in arrest rates between the treatment and control groups.

Pearson et al. (2016) evaluated a CBT program called Citizenship, which aims to enhance motivation for treatment, increase problem-solving abilities, and improve participants' integration with their communities. The researchers conducted an RCT (randomizing at the level of the probation office unit) with medium- and high-risk probationers in Teesside, in the north east of England. The control group received probation as usual. Analysis suggests that treatment assignment significantly reduced re-convictions for high-risk offenders only, though estimates are imprecise.

Barnes, Hyatt and Sherman (2017) conducted an RCT in Philadelphia, where high-risk probationers were assigned to a 14-week classroom-based CBT program in addition to standard probation. The control group received probation as usual. CBT significantly reduced the likelihood of being charged with a new offense by 17% during the year after assignment; this effect was driven by a reduction in non-violent offenses.

Heller et al. (2017) evaluated a large-scale RCT of a CBT program for male youth in the Cook County Juvenile Detention Center. CBT was offered in some housing units and not others; incoming juveniles were randomized to housing units (and thus to treatment). Since housing assignment could not be strictly randomized, due to safety concerns, this was an "encouragement" design where treatment assignment is used as an instrument for actual treatment. Eighteen months after release, re-incarceration was 6% lower for those assigned to the treatment group rather than the control group (the ITT estimate). The effect of treatment on the treated (based on an instrumental variable analysis), was a 21% reduction in re-incarceration. Both the ITT and TOT estimates are statistically significant. A thorough cost-benefit analysis estimates that the benefits of the program (i.e., the avoided social costs of crime) are at least five-times the cost of the program.

5.2 Multisystemic therapy

Multisystemic therapy (MST) is a form of mental health treatment that includes family and the community of targeted youth, for a more comprehensive approach to rehabilitation. It is highly related to other forms of family-based therapy, including Functional Family Therapy (FFT).

Olsson (2010) considered an RCT of MST in Sweden, targeting youth (ages 12-17) with a DSM-recognized conduct disorder. Youth assigned to the control group received treatment as usual. MST treatment was more expensive than standard treatment, but it did not reduce the use of or costs associated with placement interventions. The program was therefore not cost-effective in this context.

Glisson et al. (2010) conducted an RCT of MST for youth (ages 9-17) who were referred to juvenile courts in fourteen rural Appalachian counties. To be eligible, youth had to (1) be at risk of out-of-home placement due to repeated court referrals, (2) have a DSM diagnosis (but not be psychotic), and (3) be Medicaid-eligible. The RCT evaluated the use of an organizational intervention (ARC, which stands for availability, responsiveness, and continuity), alone and paired with MST. Eighteen months after assignment, out-of-home placements (as reported by caregivers, not administrative data) were significantly lower for youth who received MST or ARC, compared with the control condition that received treatment as usual.

Butler et al. (2011) considers an RCT of MST for youth offenders (ages 13-17) in an urban area of the United Kingdom. The control group received services as usual. After eighteen months, youth assigned to the MST treatment were significantly less likely to be arrested for new non-violent offenses.

Sawyer and Borduin (2011) consider long-term effects of an RCT of MST conducted in Missouri during the 1980s. The RCT targeted court-involved youth (ages 18-23); this study considered effects 22 years after assignment. The control group received individual therapy. Youth randomized to MST treatment were 37% less likely to be arrested for any felony offenses, and this effect was statistically significant. Effects were large and significant for violent felonies as well as for non-violent felonies. Dopp et al. (2014) extends the evaluation to include behavior of the siblings of the court-involved youth who were originally randomized. They found that MST reduced criminal behavior of those siblings as well, which contributed to the overall cost-effectiveness of the intervention. Finally, Johnides et al. (2017) considered long-term effects on the caregivers of targeted youth. They found that MST reduced caregivers' likelihood of arrest as well as days incarcerated. The effects on caregivers and siblings emphasize the family- and community-inclusive nature of the intervention.

Asscher et al. (2013) describe an RCT of MST in the Netherlands. Targeted youth were adolescents referred by primary health care or child social workers, due to conduct problems. About half of participants were court-ordered to receive services. Those randomized to a control group received treatment as usual (typically individual counseling or supervision by a probation officer or case manager). Being assigned to MST significantly reduced self-reported delinquent behavior.

Cuellar and Dave (2016) exploit a natural experiment in Washington state, where assignment to intensive, family-based mental health treatment (including MST as well as FFT and Aggression Replacement Training) was based on risk categories. Youth on one side of a risk-score cutoff were not eligible for specific programs, while those on the other side of the cutoff were. Exploiting this risk-score system as a natural experiment, they find that

these mental health programs increase educational attainment, and a cost-benefit analysis estimates that they are cost-effective based on anticipated effects on lifetime earnings.

de Vries et al. (2018) conducted an RCT of the New Perspectives program, with at-risk youth (ages 12-19) in the Netherlands. The program aimed to reduce persistent delinquency for youth at the beginning of their criminal careers. The New Perspectives program involved a multisystemic approach and behavorially-oriented techniques. The program consisted of a 3-month intensive coaching phase, followed by a 3-month aftercare phase. The control group received care as usual, including probation services, individual and family counseling, and academic services. By the end of the 6-month program, there were no significant differences in self-reported recidivism between the treatment and control groups.

Fonagy et al. (2018) consider a large, multisite RCT of MST for youth (ages 11-17) in England. Targeted youth had moderate to severe antisocial behavior. The control group received treatment as usual. Eighteen months after assignment, there was no significant difference in out-of-home placements across the treatment and control groups.

These mixed results suggest that MST has potential but effects may be context-specific and could depend heavily on the quality of the therapists. Studies in Western Europe may be less applicable to the U.S. in the area of mental health care; since treatment effects are measured relative to "treatment as usual," the baseline level of available health care and mental support services is important. Additional evaluations in the U.S. – including cost-benefit analyses – would be helpful.

6 Substance abuse treatment

A large share of people incarcerated in the U.S. have histories of substance abuse. National Inmate Surveys in 2007 and 2008-09 found that 42% of states prisoners and 47% of sentenced jail inmates met the criteria for drug dependence Bronson et al., 2017. A full 58% of state prisoners and 63% of jail inmates met the criteria of drug abuse. (For comparison, rates of drug dependence and abuse in the adult general population are 3% and 5%, respectively.) Substance abuse could increase criminal behavior through a direct phys-

iological effect (e.g., a drug that makes someone more aggressive) and/or because funding an addiction could increase financial pressure to commit property crime (particularly if drug use makes it difficult to maintain stable employment). Programs that reduce drug use may therefore have beneficial impacts on reentry outcomes, including recidivism.

6.1 Swift, certain, and fair sanctions

Sobriety is often a condition of probation and parole, particularly if the original offense was related to substance abuse. Often, offenders fail drug tests but are not punished consistently, and when they are (occasionally) punished, the penalty is severe (e.g. revocation of parole). A variety of new programs offer a new model, focused on swift, certain, and fair (modest) sanctions in response to substance abuse. Programs typically involve frequent, random drug tests, where a failed test is met with an immediate, short sanction (e.g., a night or two in jail). The goal is to induce behavioral change through clear expectations and consistent responses to breaking the rules.

The first study evaluating this model in the context of reducing substance abuse was an RCT of HOPE in Hawaii. Hawken and Kleiman (2009) use an RCT to compare individuals randomized to HOPE (based on the model described above) with those who received probation as usual. Eligible probationers included individuals with a substance abuse problem. Twelve months after assignment, probationers in the treatment group had spent significantly less time incarcerated than those in the control group. The success of this program prompted many other jurisdictions to implement HOPE-style models. Results of subsequent replication studies, in other jurisdictions, have been mixed.

Hawken and Kleiman (2011) used an RCT to evaluate a pilot of a replication of the HOPE program with 70 parolees in Seattle. Parolees randomized to the control group received parole supervision as usual. The study sample was not restricted to those with a documented history of drug problems. Statistical power was limited, but on average those randomized to HOPE were less likely to be convicted of a new crime and were incarcerated for fewer days than those in the control group.

Grommon et al. (2013) used an RCT to measure the effect of frequent, random drug testing, with immediate sanctions, in a large urban county in the Midwest. Eligible offenders included all men released on parole who had a history of drug problems and their supervision prohibited substance abuse. The treatment group was compared to two control groups: the first received frequent, random drug testing and treatment referral, but no immediate sanctions, and the second received standard parole supervision. Eighteen months after prison release (and treatment assignment), there was no significant difference in the likelihood of a new arrest across the treatment and control groups.

Kilmer et al. (2013) evaluate a variation on the HOPE model, a program in South Dakota called 24/7 Sobriety. The program requires individuals arrested for alcohol-related offenses to take a breathalyzer test twice per day or wear an alcohol-monitoring bracelet that continuously checks whether the person has been drinking. If someone tests positive for alcohol consumption, they receive swift, certain, and modest sanctions. This program was gradually phased in across counties in South Dakota, allowing a difference-in-differences analysis. Trends in places that adopted 24/7 Sobriety were compared with trends in places that had not yet adopted the program. The researchers found that adoption of the program caused a 12% reduction in repeat DUI arrests and a 9% reduction in domestic violence arrests. Both effects were statistically significant. A follow-up study found that 24/7 Sobriety also caused a significant reduction in deaths (Nicosia, Kilmer and Heaton, 2016).

Lattimore et al. (2016) conducted a replication RCT based on the original HOPE model, across several sites (Saline County, Arkansas; Essex County, Massachusetts; Clackamas County, Oregon; and Tarrant County, Texas). The target populations were medium- and high-risk probationers (and low-risk probationers were included in Arkansas); they were not required to have a documented history of drug use to be eligible. Probationers randomized to the control group received probation as usual. Treatment assignment did not have a significant impact on subsequent arrests, except for a reduction in drug-related arrests in one site.

This most recent set of replications was disappointing to many proponents of the HOPE model. It is possible that the success of HOPE is due largely to the leadership of particular judges. Replicating the program may simply be less effective when it is administered by less charismatic or motivational court officials. It could also be that the program is most effective for probationers with documented histories of drug abuse, so expanding to a broader population attenuates the effect. There will surely be continued efforts to figure out how and for whom swift and certain sanctions can be effective in this context. Given the mixed results so far, jurisdictions should not implement this type of program without plans for a rigorous evaluation.

6.2 Drug court

Prins et al. (2015) evaluates an RCT of drug courts across several sites in Oregon. Drug courts provide team-based services and support to those whose criminal behavior is related to drug use. Study participants were medium- to high-risk property and drug offenders, with a documented drug dependency. The treatment group was assigned to an intensive drug court, while the control group received parole as usual. One year after assignment, the treatment group had significantly fewer felony and drug charges. There is no formal cost-benefit analysis, but drug court assignment cost \$21,000 per person, on average – substantially more than standard parole. Unless the avoided offenses were serious and would have involved lengthy incarcerations, it seems unlikely that the benefits of drug courts would exceed the costs. An analysis of the impact of treatment assignment on the social costs of crime as well as days incarcerated would be necessary to determine cost-effectiveness. In addition, the scalability of this model will likely depend heavily on judges' rapport with the clients as well as the quality of the entire drug court team.

6.3 Therapeutic communities

Therapeutic communities (TCs) are a highly-structured form of long-term residential treatment for substance abuse, with a focus on self-help, group support, and mentoring. A small number of well-identified studies have measured the impact of TCs for inmates and

recently-released offenders.

Sacks et al. (2012) uses an RCT in Colorado to measure the impact of an aftercare TC for newly-released individuals with mental illness and substance abuse. The control group received standard parole supervision. Twelve months after release, individuals randomized to the TC were significantly less likely to be re-incarcerated.

Sacks, McKendrick and Hamilton (2012) considered an RCT of a prison-based TC for female inmates in Denver, Colorado, while they were incarcerated. The control group received an intensive outpatient program, involving a cognitive behavioral substance abuse intervention. Twelve months after release, there was no significant difference in re-incarceration rates across the treatment and control groups.

Welsh, Zajac and Bucklen (2014) also evaluated a prison-based TC program, using an RCT with male inmates in Pennsylvania. The control group received less-intensive outpatient group counseling. Three years after release, individuals who were randomized to the TC program were *more* likely to be re-incarcerated, on average, though that effect is not statistically significant.

6.4 Medication-assisted treatment

Medication can help individuals manage their addictions, and by extension could have important crime-reduction benefits. There is currently very little evidence on the effectiveness of medication-assisted treatment to facilitate success upon reentry.

Lobmaier et al. (2010) evaluated an RCT of sustained-release naltrexone implants beginning one month before release from prison in Norway. Study participants were volunteers with a history of heroin use. The control group received methadone. Six months after release, there was no significant difference in self-reported criminal activity across the interventions. This means that the naltrexone implant and methadone were equally effective, but does not tell us whether they are better than no medication at all.

Lee et al. (2015) examined a pilot RCT of extended-release naltrexone for opioid-dependent men, beginning one week before release from a New York City jail. The comparison group received no medication (treatment as usual). The study found no significant effect on reincarceration (measured at 8 weeks after assignment), but the sample was very small (34 participants) and statistical power was too limited to rule out meaningful effects. Larger and longer-term studies like this one would be valuable.

Gordon et al. (2017) conducted an RCT comparing various combinations of buprenorphine and counseling, before and after release from prison in Baltimore, for inmates with histories of opioid dependence. The researchers found no significant difference in self-reported criminal activity across any of the treatment arms. Since there was no control group that did not receive some form of treatment, we can't tell whether all of the combinations of treatment were effective or if none of them were.

6.5 Incentives to enroll in and attend treatment

Getting people to engage in treatment when they are not independently motivated to do so is an important challenge. Hall, Prendergast and Warda (2017) randomized parolees in Los Angeles to receive (1) financial incentives to enroll in and attend community substance abuse treatment (consisting of residential and outpatient programs), or (2) a brief education session. The financial incentives were reasonably large (participants had the potential to earn \$882.50 over the 22-week intervention), but had no effect on treatment retention. Eighteen months after assignment, there was no significant difference in arrest rates across the two groups.

6.6 Intensive case management

Individuals with substance abuse problems may need more support and encouragement in order to engage in treatment. Some jurisdictions have experimented with more active case management for this purpose.

Guydish et al. (2011) randomized drug-involved female probationers in San Francisco to receive more intensive and supportive case management by their probation officer (treatment), or probation as usual (control). The supervision received by the treatment group was designed to be more therapeutic and advocacy-oriented, including more counseling and

referrals to needed services. After twelve months, there was no significant difference in arrest rates. The coefficient suggests that the treatment group was *more* likely to be arrested, on average.

Scott and Dennis (2012) used an RCT to measure the effect of Recovery Management Checkups (RMCs), aimed at connecting recently released women to substance abuse treatment. Those randomized to the treatment group received monthly RMCs for the first 90 days after release from Cook County Jail. RMCs involved meetings with a Linkage Manager who scheduled treatment appointments when needed. Linkage Managers would also accompany their clients to intake and provide continuous support during the treatment process. The control group received reentry services as usual. At the end of the 90-day period, those randomized to receive RMCs were significantly more likely to have participated in at least some substance abuse treatment. However, the RMCs had no significant effect on arrest or incarceration rates.

7 Everything at once

7.1 Wrap-around services

Given the broad set of challenges faced by many people with criminal records, many jurisdictions provide so-called "wrap-around services" that aim to address several needs at once. Recipients of such services are often assigned a case manager to evaluate their needs and connect them with appropriate resources, from housing and employment services, to CBT and substance abuse treatment, to help signing up for Medicaid and obtaining a driver's license. These programs are labor-intensive and expensive to administer, and they are rarely evaluated. Several recent RCTs measure the effects of programs that provide wrap-around services to the recently incarcerated.

Grommon, Davidson and Bynum (2013) consider the effect of a wrap-around program with a particular emphasis on substance abuse treatment. The study sample of 511 high-and medium-risk parolees with histories of substance abuse were randomized to treatment and control groups. Those in the treatment group received assistance finding housing and

employment, employability and life skills training, and outpatient substance abuse treatment. Family substance abuse treatment sessions were also provided as needed. Individuals were supported by a caseworker, treatment therapist, and case coordinator. The control group received traditional community supervision.

Despite the array of services offered, the program had no significant effects on re-arrest or re-incarceration. The coefficients suggest that on average the treatment group actually relapsed and reoffended more often than the control group.

Cook et al. (2015) was described in Section 3.1; it evaluated an employment-focused program that provided wrap-around services in addition to transitional jobs. The study targeted high-risk offenders with a history of violence or gang involvement, with a total sample of 236 participants. Services included CBT, soft-skills and vocational training, restorative justice circles, substance abuse treatment, and remedial education. The program also included intensive "reach-in" programming that began 6 months prior to release. As described above, the program had limited beneficial effects on re-arrest rates and no significant effect on re-incarceration.

Wiegand and Sussell (2016) evaluate the effectiveness of the Reintegration of Ex-Offenders (RExO) project, a joint initiative of several federal agencies, including the Department of Justice and the Department of Labor's Employment and Training Administration. RExO provided funding to community organizations to improve reentry outcomes. The funded programs typically included mentoring, employment services, and case management that facilitated access to a variety of other services as needed. The 4,655 participants across 24 sites¹¹ were randomly assigned to a treatment group that received services from an RExO-funded program, or to a control group (which could still access other resources in the community). Three years after assignment, those assigned to the RExO treatment group were significantly more likely to have been convicted of a new crime (a 21% increase over the control mean).

¹¹Sites included organizations in Baltimore, MD; Baton Rouge, LA; Boston, MA; Chicago, IL; Cincinnati, OH; Dallas, TX; Denver, CO; Des Moines, IA; Egg Harbor, NJ; Fort Lauderdale, FL; Fresno, CA; Hartford, CT; Kansas City, MO; New Orleans, LA; Philadelphia, PA; Phoenix, AZ; Pontiac, MI; Portland, OR; Sacramento, CA; San Antonio, TX; San Diego, CA; Seattle, WA; St. Louis, MO; and Tucson, AZ.

Effects on recidivism were driven by younger participants: RExO treatment increased the likelihood of being convicted of a new felony offense by a statistically-significant 9.6 percentage points (73% of the control mean) for those under age 27. However, there was no significant effect on days incarcerated overall or for the younger subgroup. It also appears that RExO treatment *reduced* the likelihood of employment during years 1-4 (driven by effects for older participants), though this estimate is only marginally significant.¹²

D'Amico and Kim (2018) discuss an evaluation of the Second Chance Act (SCA) Adult Demonstration Program, across seven sites.¹³ The 966 participants were randomly assigned to a treatment group receiving SCA services, or to a control group receiving community services as usual. SCA services varied across sites but typically included intensive case management, employment assistance, substance abuse treatment, and CBT. The marginal cost of serving an SCA enrollee was \$2,800. These additional services had no beneficial impacts on recidivism: 30 months after assignment, there was no significant impact on the likelihood of re-arrest, re-conviction, or re-incarceration. The number of re-arrests and re-convictions was significantly higher for the treatment group, though there was no significant impact on the number of days incarcerated. Those in the treatment group were more likely to be employed, on average, though apparently only during the seventh and eighth quarters after assignment. They earned \$1,800 more than participants in the control group – this difference was statistically significant, but substantially less than the cost of the program.

Together, these studies provide compelling evidence that wrap-around-service programs, as currently implemented, are not effective and may be actively detrimental to participants. By trying to do everything at once, these programs may be failing to do anything well.

7.2 Focused deterrence

Focused deterrence programs target high-risk offenders with messages that emphasize supports available if they desist from crime, along with warnings of harsh punishment if they

¹²Survey data providing self-reported measures of recidivism and employment suggested beneficial effects of the program, highlighting the importance of using administrative data for these studies.

¹³The sites were in Allegheny County, Kentucky, Marion County, Oklahoma, San Francisco, San Mateo County, and South Dakota.

continue to offend. These messages are delivered face-to-face, and often include a broad set of community members that emphasize community support for the person's rehabilitation.¹⁴

Hamilton, Rosenfeld and Levin (2018) invited a random subset of probationers and parolees in St. Louis to a focused deterrence notification meeting. The overall sample was small – 118 individuals convicted of felony offenses were randomly assigned to the treatment or control group – and about two-thirds of those in the treatment group attended the meeting. While both ITT and TOT estimates suggest that treatment assignment reduced the likelihood of re-arrest, standard errors are large and effects are not statistically significant.

Despite their popularity, focused deterrence programs are currently not supported by rigorous evidence. It would be helpful to replicate the St. Louis study in other places and with larger samples, to produce more precise estimates of effects on recidivism.

7.3 Reentry court

Reentry courts provide comprehensive assistance and support during the reentry process, including active judicial oversight, coordination of support services, graduated sanctions, and positive incentives for success. The effectiveness of specialized courts such as reentry courts is likely to be heavily dependent on the personalities and abilities of the judges and other team members involved in offenders' cases.

Ayoub and Pooler (2015) consider the effects of the Harlem parole reentry court, using an RCT that compares parolees randomized to the reentry court (treatment) with parolees randomized to traditional parole (control). Study participants were evenly divided between low-, medium-, and high-risk. After controlling for offender characteristics (which appear to be unbalanced across the treatment and control groups), treatment assignment has no significant effect on the likelihood of re-arrest or re-conviction. However, those randomized to the reentry court are significantly less likely to have their parole revoked. Without a measure of days incarcerated, it is difficult to tell whether this program was cost-effective.

¹⁴This model is the basis for well-known programs such as Ceasefire, Project Safe Neighborhoods, and Cure Violence. Evaluations of those programs typically use matched comparison groups/neighborhoods that do not account for selection issues.

8 Diversion from incarceration

Incarceration has diminishing returns, and incarceration rates in the U.S. far exceed those in peer nations (Raphael and Stoll, 2014). Incarcerating low-level offenders may do more harm than good, and make it more difficult for those individuals to get onto a more productive track. Diversion programs aim to move some of these offenders from incarceration to community supervision.

8.1 Electronic Monitoring

Electronic monitoring (EM) is a common alternative to incarceration. EM requires individuals to wear GPS or radio frequency monitors that alert law enforcement if they violate location-related terms of their probation or parole (e.g., if they're not at home when a curfew requires it). Assignment to EM generally requires having a permanent residence and a landline phone. EM is appealing because it allows offenders to continue working or caring for family members; it may thus be less disruptive than traditional incarceration. Several studies outside the U.S. have considered the effects of EM as an alternative to short incarceration spells. There are currently no rigorous studies of the effectiveness of EM as implemented in the United States.

Henneguelle, Monnery and Kensey (2016) exploited the gradual rollout of EM as an alternative to short prison sentences (those less than one year) across courts in France. EM entailed a curfew as well as court-ordered obligations (such as work or family care); it also involved occasional (and possibly unannounced) visits by probation officers to physically check their presence at home. While judges used discretion in granting EM to particular offenders, the phased rollout meant that otherwise-similar offenders in different courts would have different chances of being assigned to EM. This provided useful variation in EM assignment that is unrelated to offenders' likelihood of reoffending; this allowed the researchers to estimate the causal effects of EM. They found that EM reduced the likelihood of another conviction by 9-11%. They also found suggestive evidence that effects were larger when probation officers visited offenders' homes at least once (that is, EM without that reminder

that they are being supervised might not be as effective).

Two other studies consider the effects of large expansions of EM in Denmark. EM became available as an alternative to incarceration for offenders sentenced to 3 months or less. The policy change meant that otherwise-similar people sentenced just before and after the expansion dates had very different likelihoods of serving their sentence on EM instead of in prison. Andersen and Andersen (2014) found that being assigned to EM reduced days spent on welfare, but only for young offenders (age 25 or under). Larsen (2017) found that EM, which was paired with a work or education requirement, increased young offenders' secondary school completion. Neither study considered effects on recidivism, but both suggest that EM facilitates successful reintegration for young, low-level offenders, when used as an alternative to short incarceration spells.

In many places, EM is not used as an alternative to incarceration but instead increases the amount of supervision for people who would otherwise be free. There is little rigorous evidence on the effectiveness of EM as a means of *increasing* supervision, but the research described in Section 9 suggests that such an application of this technology may be detrimental. That said, Killias et al. (2010) describes an RCT in Switzerland that compares EM with community service, when used as diversion from short incarceration spells. Randomization to EM (which included a curfew) instead of community service had no significant effect on recidivism, and may have increased marriage and reduced poverty over the subsequent three years (the sample was small, and results were only marginally significant). In this case, at least, it appears that EM did not have detrimental effects, even though it involved an increase in supervision relative to community service.

8.2 Court deferrals

Mueller-Smith and Schnepel (2017) study the effects of court deferrals in Harris County, Texas. Court deferrals allow felony defendants to avoid a formal conviction through probation. It also increases the penalty for reoffending, as the offender would receive sentences for both the initial and new offenses if they commit another crime while on probation; this increase in the penalty could have a substantial deterrent effect.

Two events in Harris County created natural experiments where there was a sudden change in the number of low-risk and non-violent felony defendants granted a court deferral. Before and after those events, otherwise-similar defendants received different outcomes (a felony conviction versus a court deferral) that allowed the researchers to measure the causal effect of this type of diversion program on defendants' outcomes. They found that first-time felony defendants benefited greatly from diversion: for this group, court deferrals reduced subsequent recidivism and increased the likelihood of employment. Effects were largest for young black men. Defendants with previous convictions did not benefit from court deferrals, suggesting that avoiding a first felony conviction is the key to this program's success.

8.3 Reading for Life

Seroczynski et al. (2016) discusses an RCT of a diversion program for non-violent juvenile offenders (ages 11-18) called Reading for Life (RFL). The program aims to foster moral development through small mentoring groups that discuss works of literature, guided by virtue theory. After referral by their probation officers, individuals were randomized to RFL or the status quo diversion program, community service. The authors found that RFL caused large reductions in recidivism, including a 68% decrease in prosecutions for felony offenses. It is currently unclear whether the specific program (reading and virtue theory) is driving these effects, or if the mentoring group is the key to its success. (If it is the latter, it may be more difficult to scale, as finding lots of great mentors could be difficult.) Replication and expansion studies are currently underway.

9 Changing intensity of community supervision

A diverse set of studies measure the impact of changing the intensity of community supervision on reentry outcomes.

Hennigan et al. (2010) measured the effects of intensive supervision using an RCT in Los Angeles. Juveniles were randomly assigned to intensive supervision (in the form of a community-based after-school program) or standard probation. Five years later, there were

no significant differences in outcomes between the treatment and control groups, with one exception: Young, low-risk boys (age 15 or younger) randomized to intensive supervision were worse off. Intensive supervision for that group led to more incarceration, and a higher likelihood of continued criminal justice involvement.

Barnes et al. (2012) considered outcomes from an RCT in Philadelphia. Low-risk probationers were randomized to probation as usual or low-intensity supervision by parole officers with high caseloads (which forced them to pay less attention to each individual case). Eighteen months after randomization, there were no significant differences in recidivism across the treatment and control groups.

Boyle et al. (2013) evaluated the effects of Day Reporting Centers (DRC) using an RCT in New Jersey. High-risk parolees were randomly assigned to a DRC or parole supervision as usual. Those assigned to a DRC were required to attend programming at the Center every weekday and submit to regular drug testing. The DRC provided job training, CBT, peer-support groups, and similar programs aiming to facilitate successful reentry. In the short term (a 6-month follow-up period), those assigned to a DRC instead of regular parole were significantly more likely to be convicted for a new offense. However, after 18 months there were no significant differences in recidivism between the two groups. The authors hypothesize that being required to spend weekdays with other recently-released offenders may impose negative peer effects that are actively counterproductive.

Georgiou (2014) uses the risk-score thresholds that determine someone's supervision level as a natural experiment to measure the causal effect of increasing the intensity of supervision on recidivism. Individuals with risk scores on either side of each threshold are similar, with only small differences in their likelihood of reoffending. However, having a risk score just over a threshold (e.g., going from "low-risk" to "moderate-risk," or from "moderate-risk" to "high-risk") results in a big increase in supervision that is disproportionate to the increase in actual risk level. If intensity of supervision matters, then this big increase should have an effect on recidivism. Georgiou uses data on released offenders in Washington state, and

confirms that when an offender has a risk score just over a threshold, this causes a big increase in the hours of supervision they receive. However, those big increases in supervision do not have any significant effect on recidivism during the three years after release, at any of the risk thresholds examined.

Finally, Hyatt and Barnes (2017) examine the effectiveness of intensive supervision using a particularly impressive RCT in Philadelphia. High-risk probationers were randomly assigned "moderate-risk" or "high-risk" labels that determined the actual level of supervision they received. That is, their label did not correspond at all to their actual risk level. Neither the probation officers or the offenders knew about this experiment; they interpreted the labels as valid. One year after assignment, there was no significant difference between the two groups in new charges or days incarcerated. This implies that reducing the intensity of supervision for high-risk offenders had no effect on public safety. However, those assigned to intensive supervision did have significantly more technical violations, presumably because they had more probation conditions that could be violated.

At this point, there is substantial evidence, from a variety of contexts, that increasing the intensity of community supervision has no public safety benefits and in some cases increases recidivism. It is also more expensive. It is unclear what the *optimal* amount of supervision is for various types of offenders, but it's clearly lower than current levels.

10 Expanding DNA Databases

Policies that increase the likelihood of getting caught for subsequent crimes could provide an incentive to reduce criminal behavior and focus on rehabilitation. This intuition underlies many policies, including swift and certain sanctions (particularly those requiring frequent drug tests, discussed in Section 6.1), and electronic monitoring (discussed in Section 8.1).

DNA databases are another policy that may reduce recidivism by increasing the likelihood that individuals will get caught if they reoffend. State law governs which groups of offenders (e.g., violent convicts, property convicts, misdemeanor convicts, felony arrestees) are required to provide a DNA sample to law enforcement. That sample is analyzed to create

an identifying string of numbers that is then uploaded to the database and compared with numbers identifying DNA samples from crime scenes. When a match is made, the offender is identified as a possible suspect in the crime and their information is sent to local law enforcement.

Two papers consider the impact of adding someone to the DNA database on that person's subsequent recidivism. They both exploit database expansions as natural experiments.

Doleac (2017) considers a variety of state-level expansions within the United States, all focused on adding groups felony convicts (e.g., expanding from only homicide convicts to add robbery convicts, then burglary convicts, then larceny convicts). These expansions create situations where someone released from custody on one day is not added to the database, but an otherwise-identical person released the next day (the legislated expansion date) is added to the database. The study finds that violent offenders released after the expansion date are 17% less likely to be incarcerated again within the next five years (statistically significant), and property offenders are 6% less likely to be incarcerated again (marginally significant). These reductions in re-incarceration are particularly striking given that individuals in the DNA database are more likely to get caught for any offenses they do commit. These estimates are therefore likely to be underestimates of the true deterrent effects of DNA databases.

Anker, Doleac and Landersø (2017) use a similar natural experiment in Denmark, along with much better data, to measure the effect of adding people charged with felonies to the DNA database in that country. The intuition is the same as before: Those charged the day before the policy change were not added to the database, while those charged with the same crime the next day were added to the database. In addition, this study uses detailed information on the timing of subsequent offenses and convictions to separate the deterrent and detection effects of DNA. The authors find that being added to the DNA database reduces recidivism by a statistically-significant 43% in the first year after the charge; that effect persists for at least three years, and is strongest for those charged with violent offenses. There is also suggestive evidence that being added to the DNA databases increases the

likelihood that offenders are married and/or live with their children. This study demonstrates that adding individuals after a felony charge, rather than waiting for a conviction, has a dramatic effect on preventing future criminal activity.

DNA databases do not involve labor-intensive programming or monitoring that can make standard reentry programs expensive. For this reason, they are extremely cost-effective.

11 Discussion

While the research discussed above provides meaningful guidance to policy-makers and practitioners looking to improve reentry outcomes, there is still a great deal we don't know, and lots of work to do before we can be confident that our programs are helping rather than hindering successful reintegration of the formerly-incarcerated.

The programs that seem most promising are court-issued rehabilitation certificates, cognitive behavioral therapy, diversion from short incarceration spells, reducing intensity of community supervision, and expanding DNA databases.

Evidence is mixed regarding the effectiveness of multisystemic therapy and HOPE.

Evidence is decidedly negative on the effectiveness of transitional jobs programs, Ban the Box, and wrap-around services. Jurisdictions should implement such programs with extreme caution, and a plan for rigorous evaluation.

There are many interventions that have been studied but about which there is still too little evidence to conclude effectiveness. These include Individual Placement and Support, employer education about criminal records, emergency financial assistance for housing, medication-assisted treatment for addiction, Therapeutic Communities, incentivizing and facilitating engagement in substance abuse treatment, and focused deterrence.

Many other programs have not been rigorously evaluated at all. Most notably, I was unable to find any well-identified studies that measure the causal impact of education programs on reentry outcomes.¹⁵ Readers will surely think of a variety of other programs and

¹⁵All recent studies use propensity score matching or similar matching methods to create control groups. This assumes that, holding observable characteristics constant, the decision to participate in such a program is random. However, those who choose to enroll in and complete education programs are surely more

policies that could be effective but that are not mentioned here. These are opportunities for future research.

An important lesson from the existing literature is that many well-intentioned programs designed to improve reentry outcomes are either not effective or are actively detrimental. We should move forward in a spirit of experimentation and healthy skepticism. Most interventions we try will fail – and the remainder will not succeed as well as they could. We can only achieve progress if we evaluate what we try, refine our strategies, and try again.

motivated or diligent than those who do not. Given this selection concern, a better identification strategy is necessary to know what effect these programs have on participants' outcomes.

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