

RESEARCH BRIEF

Heterogeneous Impacts of Sentencing Decisions

Based on BFI Working Paper No. 2021-113, "[Heterogenous Impacts of Sentencing Decisions](#)," by Andrew Jordan, Washington University, St. Louis; Ezra Karger, Federal Reserve Bank of Chicago; and Derek Neal, William C. Norby Professor in Economics, UChicago

KEY TAKEAWAYS

- ✓ US incarceration rates climbed, and prison construction boomed in recent decades as officials largely abandoned earlier rehabilitation efforts.
- ✓ This "get tough on crime" policy was meant to reduce crime and drive down repeat offenses.
- ✓ However, this new research reveals that first-time and repeat offenders react differently to incarceration, with the latter exhibiting no deterrent effect to prison time; high-crime neighborhoods and drug offenses figure prominently in repeat offenders' experience.
- ✓ The authors argue that society must do better in reaction to these new and powerful data, focusing on efforts to re-integrate offenders into society.

Nearly 50 years ago, an idea took hold that had profound effects on the lives of convicted felons in the United States: Those in prison were largely unreformable. The many attempts at rehabilitation and re-entry introduced in the 1960s and 1970s were deemed a failure by many observers, and it was time to get tough. Incarceration rates soared in the coming decades, accompanied by a prison boom.

Were such measures effective? Intuitively, it makes sense to assume that imprisonment reduces the likelihood of crime because offenders are incapacitated, and research confirms that assumption. However, what effect does incarceration have on whether a first-time offender commits another crime, or recidivism? Were those "get tough" policies effective in deterring crime? Until now, research has drawn different conclusions on these important questions. In "Heterogeneous Impacts of Sentencing Decisions," Andrew Jordan, Ezra Karger, and Derek Neal exploit a large database of Chicago court cases from 1990-2007, which allows them to explore heterogeneous responses to incarceration over long periods.

It turns out that not all convicted felons are the same, with significant differences in recidivism occurring among first-time vs. repeat offenders. First-time offenders who receive incarceration sentences are much less likely to re-offend, while repeat offenders are mostly undeterred by prison sentences. Further, repeat offenders most likely live in high-crime

neighborhoods and face drug-related charges. These and other key findings from this new research, including the practice and purpose of parole supervision, have important implications for policymakers and those charged with managing criminal justice systems.

The four paths of justice

Between 1970 and the Great Recession in 2008, per capita prison population in the United States grew by about 400 percent, and while incarceration rates have since fallen, they still exceed 1970 levels by 300 percent. These incarceration rates are largely the result of stricter sentencing guidelines, and they lead to a host of questions, for example: What effect does incarceration have on future behavior of convicted felons? Does prison serve as a deterrent to crime? What impact does the relative leniency of judges have on the effect of incarceration? What is the role of parole officers in trying to reduce recidivism?

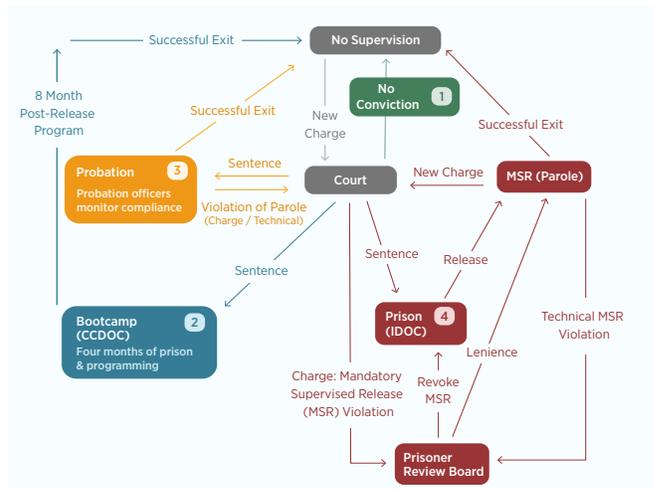
To address these and other questions, the authors employ data from the office of the Clerk of the Circuit Court of Cook County, Ill., from 1990 to 2007, which gives them access to over 70,000 Chicago-based felony cases, and the Illinois Department of Corrections (IDOC), and which provides data about admissions to and exits from prison, as well as information regarding Illinois’ parole system (Mandatory Supervised Release, or MSR).

Before reviewing the authors’ findings, it is useful to understand what the authors call the criminal justice system’s “pathways,” which are illustrated by the accompanying Figure. As we will see, the “southeast corner” of the Figure, including prison (IDOC), the Prisoner Review Board (PRB), and parole (MSR), play a key role in this process. The starting point for defendants is the Criminal Division of the Circuit Court of Cook County, where nearly all defendants make one of four possible transitions:

1. **No conviction:** The defendant faces no consequences and is sent home with no supervision.
2. **Bootcamp:** The defendant is assigned to a program that involves four months of incarceration and programming, followed by an eight-month follow-up with the Sheriff’s department. This is not formal probation and does not involve parole supervision.
3. **Probation:** Defendants are assigned a probation officer who monitors compliance. Violations of probation or new criminal charges could result in a prison sentence. Successful completion of probation results in no further supervision.

Figure 1 • Pathways: A Guide to the Criminal Justice System in Illinois

Four paths a defendant may take after facing a felony charge



Note: Each box denotes a state that a defendant may occupy after facing a felony charge in Cook County. The lines explain the transition paths between these states. For example, a defendant moves from the state of No Supervision to Court by receiving a New Charge. MSR supervision is mandatory, and the PRB acts, in many ways, as a parallel justice system while former inmates are under MSR supervision.

4. **Prison:** Those sentenced to prison never finish their time and then go home without supervision. Rather, all released prisoners in Illinois must serve a period of mandatory supervised release (MSR) under the direct supervision of a parole officer and the review of a Prisoner Review Board (PRB). Violations of MSR terms can result in an appearance before a judge in a criminal court, the PRB, or both.

As noted above, the southeast corner of the accompanying Figure—including the courts, prison, and MSR system—illustrates where and how those sentenced to prison can find themselves experiencing an incarceration cycle. Roughly 40 percent of offenders who enter MSR during the authors’ sample period re-enter prison before they complete their MSR terms, and more than one-third of those re-entries are the result of technical violations of MSR conditions, for example, failure to seek employment, failing a drug test, and so on, and are not linked to a new criminal charge.

Prison works, until it doesn’t

As noted above, the authors’ large database of cases and their ability to track defendants over relatively long periods of time allow them to draw conclusions beyond those in existing literature. Primary among the authors’ findings is suggestive evidence that incarceration tends to reduce recidivism among

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first offenders over the long term; however, this result does not hold among repeat offenders, who tend to re-offend regardless of subsequent sentencing. These and other key findings are summarized here:

First Offenders: Incarceration generates significant reductions in recidivism. For example, at the 84-month horizon, incarceration reduces recidivism by 22 percentage points among first offenders. Further, incarceration reduces recidivism among all first offenders by 29 to 30 percentage points at horizons of 48, 60, and 72 months.

How long do first offenders serve in prison? Roughly half of first offenders who receive a sentence serve less than a year in prison, while another 40 percent serve between one and four years, which means that four years after sentencing, nine of 10 incarcerated first offenders are released from prison.

This research cannot explain why many first offenders do not reoffend, whether it is a “scared straight” experience, education, counseling, or other rehabilitation efforts, but one thing is certain—such factors do not have similar effects on repeat offenders, as described in the next section. Also, while just one in five first offenders are sent to prison, many spend time in jail while waiting for a plea agreement or court date, and such time could also discourage recidivism.

Repeat Offenders: Even though repeat offenders are more than three times likely to receive incarceration sentences, their recidivism rates are higher than first offenders at every time horizon. Indeed, the authors find no evidence that incarceration impacts recidivism rates. In other words, repeat offenders keep repeating, no matter how many times they are sentenced.

The authors’ analysis of repeat offenders extends to the relative leniency of judges; that is, it obviously matters which judge a defendant faces in court. Some judges, for example, are severe when dealing with first offenders and more lenient with repeat offenders, and

vice versa. However, for the most part, judges are much more likely to assign incarceration to repeat offenders. Of note, more than 95 percent of repeat offenders receive sentences under four years.

Drug Offenders vs Non-Drug Offenders: Drug offenders make up 40 percent of defendants among first and repeat offenders. These defendants are less likely to receive incarceration sentences and are more likely to reoffend at each time horizon, but the rates vary greatly. For example, among first offenders charged with a drug crime, the magnitude of the implied reduction in recidivism rates falls by almost 30 percentage points between 48 and 72 months, and none of the estimated impacts for 60 months and beyond are statistically significant. However, among non-drug first offenders, the magnitude of the reduction in recidivism associated with incarceration treatment grows from 48 to 84 months.

High-Crime Neighborhoods: The authors devised a methodology to designate high-crime areas among Chicago’s 77 Community Areas (as defined by the Census Bureau), which then allowed them to place first offenders within neighborhoods based on crime levels. Their analysis finds that the implied reduction in recidivism associated with incarceration treatment grew steadily from month 48 to 84, where incarceration reduces recidivism rates among first offenders from lower crime neighborhoods by at least 20 percentage points. Further, among repeat offenders, at horizons beyond 48 months, the authors find no evidence that incarceration reduces long-term recidivism rates among repeat offenders from high- or low-crime neighborhoods.

Regarding race, data limitations prevent the authors from making observations of, for example, white defendants vs. Hispanic defendants, but the data are clear about the preponderance of Black defendants: More than two-thirds of the authors’ first offenders’ sample are Black and almost 85 percent of their repeat offenders’ sample are Black. The high rate of Black reoffenders has led some to suggest that Blacks are targeted and intentionally returned to prison, a claim discussed in the next section.

Over-Policing and Recidivism: Some observers challenge findings about incarceration effects on repeat offenders by saying that, in part, incarcerated repeat offenders are over-policed and over-charged relative to repeat offenders who receive probation. Buttressing this claim is that in Illinois, during the period under study, the agents who supervised offenders on MSR employed police powers. This means that MSR agents could arrest their supervisees directly or issue warrants for arrest based on their own assessments of whether a supervisee had likely committed a new crime or violated a technical MSR condition.

CLOSING TAKEAWAY

Does this research mean that the only way to prevent reoffending is to keep reoffenders in prison for longer periods of time? For the authors, the answer is an emphatic No. Rather, a plausible interpretation of their research is that society must do better when it comes to repeat offenders.

Did such power result in skewed rates of new charges? Employing data on all exits from prison during 1990 and 2015, including IDOC data connecting MSR agents to each released offender, the authors find no evidence that recidivism rates are higher while repeat offenders are under MSR supervision. Indeed, this analysis suggests that MSR supervision may reduce recidivism slightly, possibly by making the prospects of re-arrest more salient if new crimes are committed. To be clear, though, these effects are small.

However, and this is important to stress, the authors did find that MSR supervision increased the likelihood that offenders on MSR would be charged with a technical violation of MSR conditions. To the point, among men under MSR supervision, more than 40 percent of all prison readmissions are the results of technical violations, with those serving two- or three-year terms experiencing increased readmissions due to technical violations during the final year of MSR supervision.

Conclusion

For all their deep analysis of data relating to first-time vs. repeat offenders and the impact of judges, neighborhoods, drugs, and other factors, the authors stress that their paper is ultimately about the response to these data. That is, does their finding that repeat offenders from high-crime neighborhoods convicted of a drug charge are not deterred by prison sentences mean that there is no hope? Does it mean that the only way to prevent reoffending is to keep reoffenders in prison for longer periods of time?

For the authors, the answer is an emphatic No. Rather, a plausible interpretation of their research is that society must do better when it comes to repeat offenders. Whether that means better job training in prison, mental health services, drug rehab, and other programs to help offenders re-enter society, and whether it means that parole services should focus on reintegration and not reincarceration, this research cannot say. However, the failure of existing prison and parole programs to reduce recidivism among repeat offenders is not evidence that more effective programs are out of reach or that long prison terms for repeat offenders are socially optimal.

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