

I am an applied microeconomist studying the characteristics and outcomes of individuals involved in the United States criminal justice system. My research asks whether high rates of recidivism and low employment among those who are charged, convicted, or incarcerated are driven by the sanctions themselves—or whether these outcomes reflect pre-existing disadvantages. If sanctions do matter, what is the pivotal stage in the process: the initial arrest, the conviction, or incarceration? Can alternatives to traditional procedures and responses reduce criminal justice involvement and improve welfare? I address these questions using novel administrative data and quasi-experimental designs to identify causal effects. I also develop new empirical methods, or adapt existing ones, to address the econometric challenges posed by these settings.

Standard criminal justice practices and alternative paths

The United States has one of the world's highest rates of incarceration. However, there are surprisingly few credible estimates of its causal impacts on recidivism, and even less is known about the role of sentence length. In “How Does Incarceration Affect Reoffending? Estimating the Dose-Response Function” (*Journal of Political Economy*, 2021), we leverage sharp discontinuities in North Carolina's sentencing guidelines to estimate the causal effects of incarceration, as well as potential nonlinearity and heterogeneity in its effects. Individuals above a discontinuity are over 30 percentage points more likely to be incarcerated than those just below, despite being otherwise similar. We find that incarceration reduces recidivism in the long run—one year of incarceration leads to a 21% reduction in any reincarceration within eight years—driven by the period individuals are incapacitated in prison. To further unpack this result, we develop an econometric model that accounts for nonlinearities and treatment effect heterogeneity. We model incarceration as an ordered treatment with assignment governed by a single latent index, and extend existing work on partial identification methods to estimate bounds on key parameters such as the average treatment effect of a 1-year sentence. The results reveal diminishing marginal effects and selection on gains: the first year in prison has the largest impact, and those most likely to be incarcerated see the biggest reductions in reoffending as a result. This pattern suggests that judicial decision-making may be at least partially aligned with public safety objectives.

Two critical open questions following this work were whether the results were specific to North Carolina or the particular research design, and how incarceration affects labor market outcomes—and whether those effects are consistent with the impacts on recidivism. In follow-up

work, “The Impact of Incarceration on Employment, Earnings, and Tax Filing” (*Econometrica*, 2025), we linked criminal justice records from North Carolina and Ohio to federal tax data and introduced an additional research design that exploits quasi-random variation in judge leniency. We find that incarceration has minimal long-term effects on earnings and employment once individuals are released, consistent with its limited effects on post-release recidivism. A likely explanation is that individuals on the margin of incarceration are already highly disconnected from the labor market, with employment rates below 50% and average earnings beneath the federal poverty line. The remarkable consistency of estimates across North Carolina and Ohio enhances their generalizability in the U.S. context.

Detachment from the labor market can significantly contribute to criminal involvement. In “How Replaceable Is a Low-Wage Job?” (R&R at *Review of Economic Studies*), we use administrative records from the U.S. Census Bureau to examine how job loss affects crime and economic outcomes. The findings show that low-wage workers experience sustained reductions in employment and earnings following displacement, while the effects on incarceration are less pronounced. A key contribution of this work is to demonstrate that, in the low-wage labor market, a full-time low-wage job is not easily replaceable—contrary to common perceptions in the literature. This result fills an important gap in the job loss literature, which has primarily focused on higher-wage and long-tenure workers.

Alternative Paths to Traditional Criminal Justice Responses

To explore potential alternatives that may achieve public safety with lower system involvement, I evaluated the causal effects of two promising alternatives to traditional criminal justice responses that reduce system involvement.

First, in “Can Restorative Justice Conferencing Reduce Recidivism? Evidence From the Make-it-Right Program” (*Econometrica*, 2024), we evaluate the Make-it-Right (MIR) program, a restorative justice initiative for teenagers otherwise facing felony charges. Eligible youth were randomly assigned to either a treatment group offered MIR or a control group prosecuted as usual. Successful completion of MIR results in no formal charges being filed. The experiment included 143 youth—13% of all juveniles charged with a felony in San Francisco during the study period—with 99 assigned to MIR and 44 to standard prosecution. Despite the modest sample size, the estimated effects are large: MIR reduced rearrests by over 20 percentage points and yielded sustained declines in recidivism across multiple dimensions even four years after referral. These results represent some of the first causal estimates of the effectiveness of restorative justice methods in the United States. While there is a broad literature on the determinants of criminal behavior and its responses to various incentives—such as punishment severity—little is known about whether less punitive interventions that foster empathy and encourage self-reflection can durably influence behavior.

Second, in “Mobile Crisis Response Teams Support Better Policing: Evidence from CA-HOOTS” (working paper, 2025), we examine the causal impact of dispatching crisis response

teams—either alongside or instead of police—to 911 calls involving mental illness, homelessness, or addiction. The study focuses on the longest-running crisis response program in the U.S.: Crisis Assistance Helping Out on the Streets (CAHOOTS) in Eugene, Oregon. Using detailed administrative data on 911 calls and two complementary research designs, we estimate the effects of both the program’s initial expansion to new areas and the marginal impact of a call once the program is fully scaled. The analysis finds that CAHOOTS reduces arrests by 24 percentage points and increases access to medical care, including a 4.4 percentage point increase in the likelihood of a cardiac arrest diagnosis.

————— What leads individuals to criminal justice involvement?

In “The Effects of Teacher Quality on Adult Criminal Justice Contact” (R&R at *Econometrica*), we examine the impacts of teachers on students’ future arrest, conviction, and imprisonment by leveraging a novel linking of the universe of court and public school records in North Carolina. Teachers’ effects on arrests are orthogonal to their impact on academic achievement, implying assignment to a high test score value-added teacher does not reduce future arrests. However, teachers who reduce suspensions and improve attendance substantially reduce future arrests. Relatedly, in “School Discipline and Racial Disparities in Early Adulthood” (*Educational Researcher*, 2022), we find that in Oregon, racial disparities in school discipline outcomes are strongly predictive of racial earnings and criminal justice disparities in early adulthood.

A potentially traumatic life event is serving in a combat area. In “The Effects of Combat Deployments on Veterans’ Outcomes” (*Journal of Political Economy*, 2024), we identify the causal effects of combat deployment on long-run outcomes using rich administrative records and a new research design that exploits the quasi-random initial assignment of soldiers to units with varying likelihoods of deployment. As expected, serving in combat increases dramatically the risk of death and injury from combat. However, it does not affect future antisocial behavior, such as criminal involvement or suicide.

Adequate legal representation significantly affects the likelihood of conviction and incarceration for those in the criminal justice system. In “Make or Buy? The Provision of Indigent Defense Services in the U.S.” (*Review of Economics and Statistics*, 2022), I examine the often-overlooked issue of inadequate legal representation for low-income defendants by comparing co-defendants within the same case who had different types of legal representation. My findings show that defendants represented by public defenders have systematically better outcomes than those with court-appointed private attorneys. These results highlight the importance of institutional design in public service provision and suggest that how the state delivers indigent defense can have meaningful consequences for defendants’ outcomes.

———— Tailoring econometric tools to empirical challenges

I am also interested in applied econometrics and the development of new methods. In “The Effects of Teacher Quality on Adult Criminal Justice Contact” (R&R at *Econometrica*), we develop new nonparametric techniques for variance-covariance estimation to estimate the impacts of teachers on students’ short- and long-run outcomes. My work on the effects of incarceration on recidivism extends recent developments in the estimation of policy-relevant treatment effects using partial identification methods to multi-valued ordered treatments. This work led us to derive new results on the assumptions needed to recode an ordered treatment as binary when using instrumental variables, as discussed in “On Recoding Ordered Treatments as Binary Indicators” (Forthcoming, *Review of Economics and Statistics*). To examine the effects of job loss on low-wage workers—who have high rates of job separation—we develop a new instrumental variable strategy that extends the classic mass-layoffs research design, which conditions on high-tenure workers, to low-tenure workers and allows us to recover the causal effects of job loss for this population, which is less attached to the labor market.

Lastly, in “The Classification Permutation Test: A Non-Parametric Test for Equality of Multivariate Distributions” (*Annals of Applied Statistics*, 2019), we develop a statistical procedure for testing “as-if” random assignment in quasi-experimental research designs. In “Inference on a New Class of Sample Average Treatment Effects” (*Journal of the American Statistical Association*, 2021), we derive new theoretical results for inference on different average treatment effect estimands, clarifying the distinction between inference on population-level effects and sample average treatment effects.